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VB/I-70 COMMUNITY HEALTH EDUCATION AND OUTREACH PLAN

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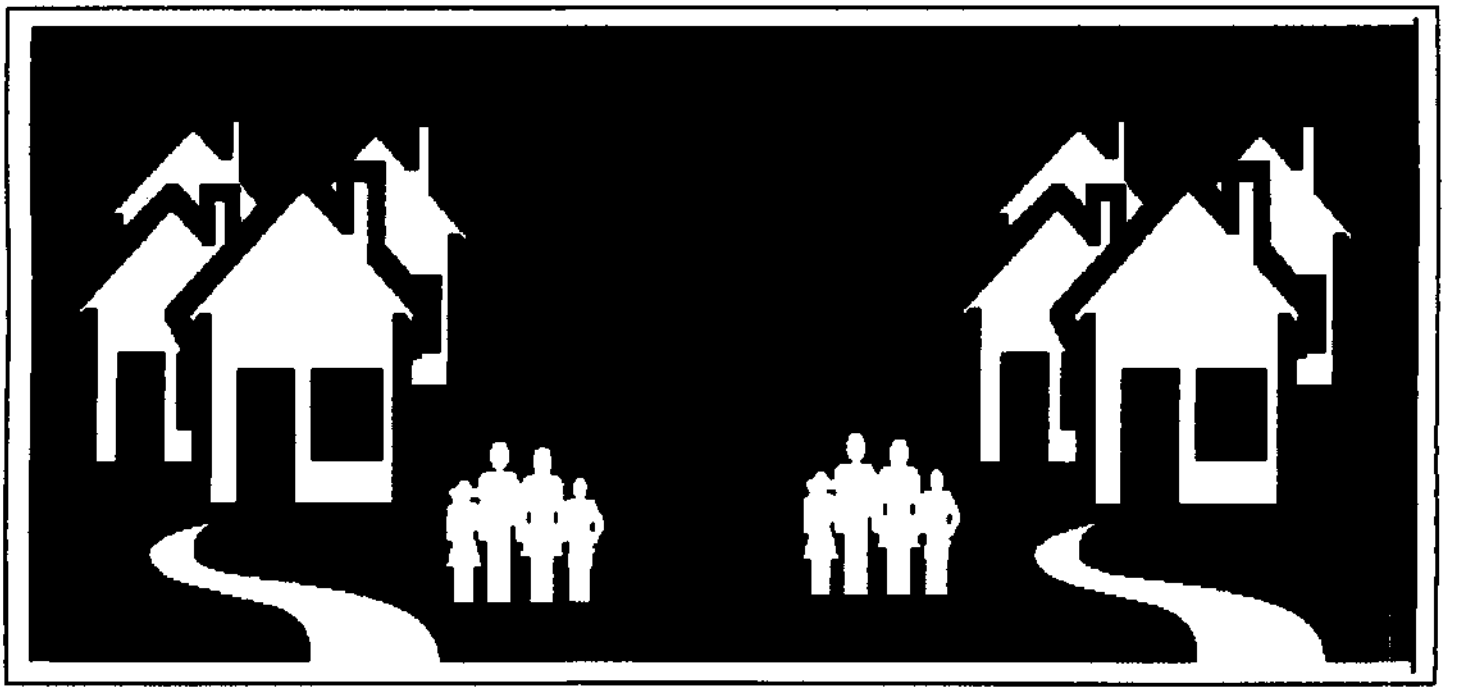

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- March 8, 2004 – Globe and Swansea – Globe and Swansea Head Start
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- EPA Announcements the Final Cleanup Decision for Residential Soils in the VB/I-70 Superfund Site Record of Decision

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- You Can! Prevent Lead Poisoning!
- El Programa de la Prevención de Envenenamiento por Plomo de Colorado
- Cómo Proteger Su Salud/How To Protect Your Health
- Fact Sheet: Some Facts About Soil Sampling In The Neighborhood
- La Intoxicación Con Plomo En Los Niños
- What Every Parent Should Know About Lead Levels In Children
- Too bad the early warning signs of lead poisoning aren't this obvious/Lástima que las primeras señales del envenenamiento por plomo no sean tan claras

(EPA) Lead Poisoning And Your Children
- Is your home haunted by lead paint?
- Protect your child from lead poisoning
- Protect Your Family From Lead In Your Home/ Proteja a Su Familia en Contra del Plomo en su Casa
- What everyone should Know About Lead Poisoning

Home Remodeling Information
- Renovating your home safely
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- Lead in your home: a parent's reference guide

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VB/I-70 COMMUNITY HEALTH EDUCATION AND OUTREACH PLAN
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APPENDIX A

COMMUNITY MEETINGS AT LARGE

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March 11, 2004 – Clayton – Hope Center Children's Program

Community Meetings at Large
CONTACT LISTS AND MEETING NOTICES A-2
Cole/Clayton/North Curtis Park/Les Invitamos
Cole Neighborhood Residents/Residentes del Barrio de Cole
Community Meeting/Junta del Vecindario
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EPA Announcements the Final Cleanup Decision for Residential Soils in the VB/I-70 Superfund Site
Record of Decision
Summary of Declaration Pertaining to the Community Plan in the Record of Decision for the VBI-70 Superfund Site ("The Remedy") / Sumario De La Declaración Perteneciendo al Plan De La Comunidad En El Archive De Decisión (ROD) Para El Área Contaminada Alrededor De VBI-70 (El Remedio")
The Final Cleanup Decision for Residential Soils in the VB/I-70 Superfund Site Denver, Colorado October 2003

Community Meetings at Large
CORRESPONDENCE A-4
December 15, 2003
December 15, 2003
January 12, 2004
June 7, 2004

APPENDIX A-1

Community Meetings at Large

AGENDAS, MINUTES, LIST OF ATTENDEES

December 9, 2003 – Cole and Clayton - St. Martins Plaza
February 24, 2004 – Clayton - Hope Center Children's Program
March 6, 2004 – Clayton – St. Luke's Church
March 8, 2004 – Globe and Swansea – Globe and Swansea Head Start
March 9, 2004 – Cole and Clayton – Small Group – Clyburn Village
March 11, 2004 – Clayton – Hope Center Children's Program

Addendum

Clayton and Cole Community Meeting
Tuesday, December 9, 2003, at 6:00, St. Martin's Plaza
1300 Bruce Randolph St., Denver, CO 80205

- **Meeting Date:** Tuesday, December 9, 2003, at 6:00, at St. Martin's Plaza 1300 Bruce Randolph St., Denver, CO 80205

- **Announcements:** Sunday, November 30, 2003 flyers were distributed at Annunciation Church for all masses. Thursday, Dec. 5th flyers were distributed at the Head Start Holiday Fair in Clayton. Clayton Early Head Start and Head Start Programs serve almost all of Northeast Denver.

- **Agenda:** The agenda was to be created at the community meeting. Unfortunately, no community members attended the meeting, therefore, resulting in no agenda for this meeting.

- **Attendees:** 0 community members. DEH and EPA staff.

- **Minutes:** The minutes were to be created from the community members. Unfortunately, no community members attended the meeting; therefore, there are no minutes.

- **Note:** Sandy Douglas, the community leader who arranged the meeting, cancelled the meeting with the community members at the last moment due to a family emergency.

Attendees: Beverly Tafoya-Dominguez, Peggy Linn, Jennifer Slavick, Pat Courtney, and Rocio Perez

December 9, 2003
VB I-70 Community Health Plan
Cole and Clayton – St. Martin's Plaza
1300 Bruce Randolph St., Denver, CO 80205

CONTACT LIST AND MEETING NOTICES
for meeting of

December 9, 2003
VB I-70 Community Health Plan
Cole and Clayton - St. Martin's Plaza
1300 Bruce Randolph St., Denver, CO 80205

See Appendix A-2 for Copies of Contact List and Meeting Notices

Contact List
1. VB I-70 Community Health Plan Contacts

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1. Cole/Clayton/North Curtis Park
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for meeting of

December 9, 2003
VB I-70 Community Health Plan
Cole and Clayton - St. Martin's Plaza
1300 Bruce Randolph St., Denver, CO 80205

See Appendix A-3 for Copies of listed Handout Materials

1. Arsenic in Soil

2. Lead in Soil

3. EPA Anuncia la Decisión Final de Limpieza para Suelos Residenciales en el Sitio de Superfondo VB/I-70

4. EPA Announcements the Final Cleanup Decision for Residential Soils in the VB/I-70 Superfund Site

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6. Sumario De La Declaración Perteneciendo Al Plan De La Comunidad En El Archive De Decisión (ROD) Para El Área Contaminada Alrededor De VBI-70 (El Remedio")

   Summary of Declaration Pertaining to the Community Plan in the Record of Decision for the VBI-70 Superfund Site ("The Remedy")

7. Script - The Final Cleanup Decision for Residential Soils in the VB/I-70 Superfund Site Denver, Colorado October 2003

Addendum

Clayton Community Meeting
Tuesday, February 24, 2004 at 6:00, Hope Center
3400 Elizabeth St., Denver, Colorado 80205

Some community leaders requested that we have special meetings to ensure the highest level of community participation possible. Clayton community leaders were concerned about residents not having a chance to be heard regarding their ideas for the community health plan, as the VB/I-70 Work Group and CEASE meetings are held during normal business hours.

- **Meeting Date:** A community meeting was scheduled for Tuesday, February 24th at 6:00 at the Hope Center on 3400 Elizabeth St. 80205

- **Announcements:** Since errors in the USPS mailing system ended up in a failed delivery of postcard invitations for the community meeting, DEH decided to reschedule the Clayton community meeting for Thursday, March 11, 2004 at 6:00 p.m. at the Hope Center on 3400 Elizabeth St. 80205. DEH decided that the new invitations be delivered to elementary schools in the VB I70 area.

- **Agenda:** The agenda was to be created at the community meeting, unfortunately, few community members attended the meeting, therefore, resulting in no agenda for this meeting.

- **Attendees:** 3 community members. DEH and EPA staff.

- **Minutes:** Formal feedback was not recorded as two of the attendees arrived after the facilitator had left. They were asked for input and their input was included in the minutes of the next VB-I-70 Workgroup/CEASE meeting.

  DEH & EPA Staff discussed the current status and the plans for future mtgs.

Attendees: Anthony Thomas, Beverly Tafoya-Dominguez, Kenneth Cotton, Larry Brewington, Pat Courtney, Robert Jones, Rocio Perez, Sunny Walker, and Victor Ketellapper

February 24, 2004
VB I-70 Community Health Plan
Clayton – Hope Children's Program
3400 Elizabeth St., Denver, CO 80205

CONTACT LIST AND MEETING NOTICES

for meeting of

February 24, 2004
VB I-70 Community Health Plan
Clayton - Hope Center Children's Program
3400 Elizabeth St, Denver, CO 80205

See Appendix A-2 for Copies of Contact Lists and Meeting Notices

Contact List

1. VB I-70 Community Health Plan Contacts

Meeting Notices

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UNITED STATES POSTAL SERVICE

Home

Order Receipt
Your billing information has been collected and your order has been sent for processing. To check on the status of your past orders. click on the 'Order Status' link. You may Sign Out using the 'Sign Out' link in the upper left. You may also begin a new order by clicking on the 'Step by Step' or 'Express' links in the navigation area to the left.

Pricing Summary

Category	Description	Unit Price	Quantity	Amount
Postage Costs	Postage (Automation first class card)	$0.194	1506	$292.20
			Postage Costs subtotal	**$292.20**
			Price for mailing subtotal	**$292.20**
			Total Price	$292.20

Paid in full 2/15/04

RANK CODE: TC 50

PREVAILING WAGE | EXTENDED TESTING | DISCOUNT AVAILABLE

REQUEST FOR PAYMENT
CITY AND COUNTY OF DENVER

VOUCHER DATE: 02/26/04 | VOUCHER NO.

To: Actax Dolores 2/27/04

AGENCY DATE STAMP 1

REGULAR | CMRA | RMC 20-64 EMERG | NON-EMERG | ANNUAL BID | CONTRACT | INDP AGENCY | REFUND PAYMENT | PETTY CASH | TRAVEL | PERISHABLE FOOD | OTHER FOOD

DEPARTMENT / AGENCY: Environmental Health

DIVISION: Environmental Protection

VOUCHER YEAR: 2004

PAYEE:

Beverly Tafoya-Dominguez
Environmental Protection Division
201 W Colfax Ave, Dept 1009
Denver, CO 80202

VENDOR I.D.

VENDOR INVOICE

BID NO.

ALLOWED

DATE

BY:

HOLD FOR AGENCY I/O ☒ OR P/U ☐

PHONE

NAME

AGENCY DATE STAMP 2

ITM	ENCUMBRANCE NO.	P/C	FUND / ORG.	ACCT.	TASK	OPT.	ACTIVITY	AMOUNT
1			01010-6504100	910200				$292.20
2								
3								
4								
5								
6								
7								
8								

AGENCY DATE STAMP 3

INVOICE NO.	DESCRIPTION	AMOUNT
	Request reimbursement be made to payee for payment of postage cost. See: Attached justification memo and paid receipt.	

Void Check Returned
Wait to Accty
2/26/04

AUDITOR'S DATE STAMP

AUDITOR'S REJECTION ONE

FIXED ASSET NO.

PURCHASING / GENERAL SERVICES APPROVAL

DATE

BY:

AUDITOR'S USE ONLY

TOTAL GROSS ➤	$292.20
DISCOUNT ➤	
NET AMOUNT ➤	

AUDITOR COMMENTS

AUDITOR'S REJECTION TWO

REQUESTOR VERIFICATION
I CERTIFY THAT:
Prepayment is required for materials or services. ☐
The materials or services shown above were received by this agency.
The materials appear to comply with specifications.
The services appear to be satisfactory.

PHONE NO.

AUTHORIZED SIGNATURE | DATE

EXPENDING AUTHORITY VERIFICATION
I CERTIFY THAT:
I am authorized to make and file the Request for Payment.
Sufficient budget exists to make payment.
The amount set forth herein is due and owing from the City and County of Denver to the above named vendor.

PHONE NO.

AUTHORIZED SIGNATURE | DATE

VOUCHER NO.

ACM 8 (Rev. 11/02)

[redacted]

CITY AND COUNTY OF DENVER, CO
201 West Colfax Avenue Dept 705
Denver CO 80202
TO THE TREASURER OF THE CITY AND COUNTY OF DENVER

DRAWN ON
BANK ONE
56-154/0441

20192508

VOID AFTER SIX MONTHS
Date 08.Mar.2004
Pay Amount $292.20***

Pay **TWO HUNDRED NINETY TWO AND 20 / 100 US DOLLAR**

To The Order Of
TAFOYA-DOMINGUEZ, BEVERLY
201 WEST COLFAX AVENUE DEPT 1109
DENVER, CO 80202

VOID

Dennis J. Gallagher
DENNIS J. GALLAGHER
AUDITOR

Audited and Allowed

⑈20192508⑈ ⑆044115443⑆ 634866545⑈

Warrant Date: 08.Mar.2004 | City and County of Denver, Colorado | Warrant No. 20192508

Invoice Number	Receipt Date	Voucher ID	Gross Amount	Discount Available	Paid Amount
ENVHL022604ER	26.Feb.2004	00012764	292.20	0.00	292.20

A negative 'Discount Taken' indicates an interest payment due to processing delays. For questions regarding this check, please call (720) 913-5191.

Vendor Number	Vendor Name	Total Discounts
0000050602	TAFOYA-DOMINGUEZ, BEVERLY	$0.00

Warrant Number	Date	Total Amount	Discounts Taken	Total Paid Amount
20192508	08.Mar.2004	$292.20	$0.00	$292.20

MEETING HANDOUTS
for meeting of

February 24, 2004
VB I-70 Community Health Plan
Clayton - Hope Center Children's Program
3400 Elizabeth St, Denver, CO 80205

See Appendix A-3 for Copies of Listed Handout Materials

1. Arsenic in Soil

2. Lead in Soil

3. EPA Anuncia la Decisión Final de Limpieza para Suelos Residenciales en el Sitio de Superfondo VB/I-70

4. EPA Announcements the Final Cleanup Decision for Residential Soils in the VB/I-70 Superfund Site

5. Record of Decision

6. Sumario De La Declaración Perteneciendo Al Plan De La Comunidad En El Archive De Decisión (ROD) Para El Área Contaminada Alrededor De VBI-70 (El Remedio")

   Summary of Declaration Pertaining to the Community Plan in the Record of Decision for the VBI-70 Superfund Site ("The Remedy")

7. Script - The Final Cleanup Decision for Residential Soils in the VB/I-70 Superfund Site Denver, Colorado October 2003

Clayton Neighborhood Association Meeting
Meeting Notes pertaining to VB/I-70
3/6/04

Attendees: Clayton Neighborhood Association Members, Sandy Douglas a Cole resident representing the Healthy Children's Partnership, Lee Brown - school teacher from DPS presented on non-VB-I70 matter, Youth involved in Healthy Children Partnership—Domonique, Michael, Eric, Angelo, Beverly Tafoya-Dominguez, Celia Vanderloop, Rocio Perez, Sunny Walker, Pat Courtney, Jennifer Slavick

Beverly Lumumba, president of the Clayton Neighborhood Association, handed out Clayton/Cole Healthy Children Partnership Fact Sheet - goals of project include educating families about lead hazards in their homes, showing families how to protect their children from these hazards, encouraging families to have young children tested for lead poisoning, and helping families access free services available to help clean up their homes if children have been poisoned by lead. Regarding education, the goal is to create an intergenerational learning experience regarding environmental issues impacting our community.

To implement the project, residents are organized into three specific advocacy groups;

- Young advocates
- Young interns
- Community advocates

Cole and Clayton neighborhood associations each have trained a team of young advocates who will be responsible for education and outreach in their neighborhoods. These young advocates have already begun canvassing the neighborhoods teaching their neighbors about the dangers of lead poisoning and recruiting families who would like a more in-depth educational investigation of their home.
Cole and Clayton have also identified residents who have been trained by NDHC as home investigators.

Clayton/Cole loves healthy children partnership – the group is not as active currently as they took a break so children can go back to school - kids are ready to get back into it. Kids were identified by the special t-shirts they wore with the HCP logo. At neighborhood events for the signing of the R.O.D. it- looked like there were many youth involved in the project.

Ms. Hooker discussed initial neighborhood activities involving lead poisoning prevention. "After people accepted being tested, I went door to door with testers – we told the residents we wanted to find the space where the most children are - your block has the future for our community - I think we should get test them."

Angelo: Lead is everywhere—like they tested school field - Mitchell may have problem with soils.
Domonique Soils at school are dirty school buildings are clean. Celia requested data substantiating this declaration. Beverly Lumumba to serve as youth contact point and get the data to Celia. Sandy requested the preliminary information from the Kids at Play Study (KAP). Beverly Lumumba said that the CHP is very important to Cole and Clayton. The group said that they never quite understood the reason for KAP study; there was never a real dialogue on what was going on with the neighborhood association. The students hired to conduct the work went door to door themselves - Joan's block was tested because Joan went along. But Beverly Lumumba and other members felt that the community didn't have a place to be involved in that study. This time they (the CNA members want to be involved in this community health plan - want to have a strong voice. They want to have community testing sites. One of the youth thought that it would be a good idea to have a testing site at the school, and HCP and other community members involved in the project could canvass the neighborhood to let residents with children to young to be in school know about the free testing occurring at the school on the day of the testing.

The group was concerned that a lot of people won't go out for things that they need to go to other locations for and that often the people that won't go out are those that you want to reach the most. There's a great likelihood that the children at home are the ones that we are concerned about, not necessarily those old enough to go to school. Young children are at home—the CHP staff and/or neighborhood staff will need to test the places that people play at - follow people home

Ms Hayes voiced the concern that "There are too many lawns with no grass and bare dirt - who is responsible to keep dirt from blowing? Should there be recommendations that people take care of their lawn? EPA is doing the dirt and re-sodding. Her block - every block had grass before -now it doesn't. Is there mulch or something else that can keep the dirt down? Pat Courtney responded about the different options available for yards with soil contamination: Rock gardens etc.

Some of the outreach ideas mentioned were to have the youth involved in HCP design the materials, have the HCP youth and the neighborhood distribute the materials. Ms. Hooker felt that model families should be contracted as educators-- they could say how it worked on their yard - find a corner house that has been remediated so that other community

Attendees: Angilo Brown, Andrew Cagnolatti, Beatrice Jacobs, Beverly Lumumba, Beverly Tafoya-Dominguez, Celia Vanderloop, C.E. Abernathy, Dominique Hope, Helen McCallum, Joan Hooker, Jonathan Cagnolatti, Jordan Hope, Joseph T. Brown, Leroy Brown, Pat Courtney, Rocio Perez, Sunny Walker, and Victor Ketellaper

March 6, 2004
VB I-70 Community Health Plan
Clayton – St. Luke's Church
3400 Madison St., Denver, CO 80205

CONTACT LIST AND MEETING NOTICES

for meeting of

March 6, 2004
VB I-70 Community Health Plan
Clayton - St. Luke's Church
3444 Madison St., Denver, CO 80205

See Appendix A-2 for Copies of Contact Lists and Meeting Notices

Contact List

1. VB I-70 Community Health Plan Contacts

Meeting Notices

1. JOIN US VB-170 Superfund Area (Clayton, Cole, Elyria-Swansea, South Globeville, or North Curtis Park)/Les Invitamos Superfondo Bulevar Vasquez e Interestatal 70 vecindarios de (Clayton, Cole, Elyria-Swansea, South Globeville, o North Curtis Park

MEETING HANDOUTS
for meeting of

March 6, 2004
VB I-70 Community Health Plan
Clayton - St. Luke's Church
3444 Madison St., Denver, CO 80205

See Appendix A-3 for Copies of Listed Handout Materials

1. Arsenic in Soil

2. Lead in Soil

3. EPA Anuncia la Decisión Final de Limpieza para Suelos Residenciales en el Sitio de Superfondo VB/I-70

4. EPA Announcements the Final Cleanup Decision for Residential Soils in the VB/I-70 Superfund Site

5. Record of Decision

6. Sumario De La Declaración Perteneciendo Al Plan De La Comunidad En El Archive De Decisión (ROD) Para El Área Contaminada Alrededor De VBI-70 (El Remedio")

   Summary of Declaration Pertaining to the Community Plan in the Record of Decision for the VBI-70 Superfund Site ("The Remedy")

7. Script - The Final Cleanup Decision for Residential Soils in the VB/I-70 Superfund Site Denver, Colorado October 2003

Addendum

Globeville and Swansea/Elyria Community Meeting
Monday, March 8, 2004 at 6:00 p.m., Globe and Swansea Head Start
5100 Lincoln St., Denver, Colorado 80205

Globeville and Swansea/Elyria community leaders requested that DEH have special meetings to ensure the highest level of community participation possible. The community leaders were concerned about the residents not having a chance to be heard regarding their ideas for the community health plan, as the VB/I-70 Work Group and CEASE meetings are held during normal business hours.

- **Meeting Date:** A community meeting was scheduled for Monday, March 8th at 5:30 at the Globe and Swansea Head Start on 5100 Lincoln St., Denver, Colorado 80205

- **Announcements:** Over 4000 bi-lingual flyers, with all of the remaining meetings listed, were distributed through the elementary schools in the VB-I70 area (Barrett Elementary, Columbine Elementary, Harrington Elementary, Pioneer Elementary). The St Cajetan's Church Youth Group volunteered to place flyers door-to-door in the Clayton Neighborhood, but some residents said that some homes did not receive flyers. Flyers were also placed in local businesses such as the Panaderia Emanuel, El Defensor del Hispano and A to Z market. Recruitment for the meetings included the previously mentioned flyers, phone calls to every Head Start parent by the Globe and Swansea Head Start Staff and door to door invitations in the Globe neighborhood.

- **Agenda:** The agenda was to be created at the community meeting. Unfortunately, no community members attended the meeting; therefore, there is no agenda for this meeting.

- **Attendees:** 0 community members. DEH and EPA staff.

- **Minutes:** Minutes were not taken due to the lack of community participation at the meeting.

DEH & EPA Staff discussed the current status and the plans for future mtgs.

Attendees: Beverly Tafoya-Dominguez, Celia Vanderloop, Jennifer Slavick, Kenneth Cotton, Rocio Perez, and Sunny Walker

March 8, 2004
VB I-70 Community Health Plan
Swansea and Globe – Globe and Swansea Head Start
5100 Lincoln St., Denver, CO 80205

CONTACT LIST AND MEETING NOTICES

for meeting of

March 8, 2004
VB I-70 Community Health Plan
Globe and Swansea - Globe and Swansea Head Start
5100 Lincoln St., Denver, CO 80205

See Appendix A-2 for Copies of Contact Lists and Meeting Notices

Contact List

1. VB I-70 Community Health Plan Contact

Meeting Notices

1. JOIN US VB-I70 Superfund Area (Clayton, Cole, Elyria-Swansea, South Globeville, or North Curtis Park)/Les Invitamos Superfondo Bulevar Vasquez e Interestatal 70 vecindarios de (Clayton, Cole, Elyria-Swansea, South Globeville, o North Curtis Park

March 8, 2004

To whom it may concern:

I, Ambar Serna and Amanda Kellar are staff of Head Start for Swansea, Lincoln and Globeville. We invited about ninety-six parents to meeting held at our location 5100 Lincoln St. Denver 80216. The invitations were made to our parents by fliers and phone calls all from the neighborhood of Globeville and Swansea. Thank You very much.

Thanks,

Ambar Serna FSW I

MEETING HANDOUTS
for meeting of

March 8, 2004
VB I-70 Community Health Plan
Globe and Swansea - Globe and Swansea Head Start
5100 Lincoln St., Denver, CO 80205

See Appendix A-3 for Copies of Listed Handout Materials

1. Arsenic in Soil

2. Lead in Soil

3. EPA Anuncia la Decisión Final de Limpieza para Suelos Residenciales en el Sitio de Superfondo VB/I-70

4. EPA Announcements the Final Cleanup Decision for Residential Soils in the VB/I-70 Superfund Site

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6. Sumario De La Declaración Perteneciendo Al Plan De La Comunidad En El Archive De Decisión (ROD) Para El Área Contaminada Alrededor De VBI-70 (El Remedio")

   Summary of Declaration Pertaining to the Community Plan in the Record of Decision for the VBI-70 Superfund Site ("The Remedy")

7. Script - The Final Cleanup Decision for Residential Soils in the VB/I-70 Superfund Site Denver, Colorado October 2003

Addendum

Cole and Clayton Community Meeting – Small group
Tuesday, March 9th at 7:00 p.m. at Bocaza Mexican Grill 1740 E. 17th Ave., Denver, CO 80218

A small group interview with three monolingual Hispanic women was held after the Cole and Clayton, held on Tuesday, March 9th at 6:00 p.m. during the Cole Neighborhood Alliance Meeting at the Clyburn Village on 3280 Downing St., Denver, Colorado 80205 to get the Latino perceptions of what a successful CHP would entail.

- **Meeting Date:** Cole and Clayton small group Community Meeting – Latina Group, Tuesday, March 9th at 7:00 p.m., 1740 E. 17th Ave., Denver, CO 80218

- **Announcements:** Over 4000 bi-lingual flyers, with all of the remaining meetings listed, were distributed through the elementary schools in the VB-I70 area (Globeville and Swansea head start, invitations and phone calls to parents). The St Cajetan's Church Youth Group volunteered to place flyers door-to-door in the Clayton Neighborhood, but some residents commented that some homes did not receive flyers. Flyers were also placed in local businesses such as the Panaderia Emanuel, El Defensor del Hispano and A to Z market. Recruitment for the meetings included the previously mentioned flyers, phone calls to every Head Start parent by the Globe and Swansea Head Start Staff and door to door invitations in the Globe neighborhood.

- **Agenda:** The agenda was part of an existing meeting.

- **Attendees:** 3 community members in attendance.

- **Minutes:** The Latina women requested that no written notes be taken at the small group interview as they wished for their input to remain anonymous. Their input was included in the minutes of the next VB-I-70 Workgroup/CEASE meeting.

CONTACT LIST AND MEETING NOTICES

for meeting of

March 9, 2004
VB I-70 Community Health Plan
Cole and Clayton – Small Group - Clyburn Village
3280 Downing St., Denver, CO 80205

See Appendix A-2 for Copies of Contact Lists and Meeting Notices

Contact List

1. VB I-70 Community Health Plan Contacts

Meeting Notices

1. Cole Neighborhood Residents
   Residente del Vario de Cole

2. JOIN US VB-170 Superfund Area (Clayton, Cole, Elyria-Swansea, South Globeville, or North Curtis Park)/Les Invitamos Superfondo Bulevar Vasquez e Interestatal 70 vecindarios de (Clayton, Cole, Elyria-Swansea, South Globeville, o North Curtis Park

MEETING HANDOUTS
for meeting of

March 9, 2004
VB I-70 Community Health Plan
Cole and Clayton – Small Group - Clyburn Village
3280 Downing St., Denver, CO 80205

See Appendix A-3 for Copies of Listed Handout Materials

1. Arsenic in Soil

2. Lead in Soil

3. EPA Anuncia la Decisión Final de Limpieza para Suelos Residenciales en el Sitio de Superfondo VB/I-70

4. EPA Announcements the Final Cleanup Decision for Residential Soils in the VB/I-70 Superfund Site

5. Record of Decision

6. Sumario De La Declaración Perteneciendo Al Plan De La Comunidad En El Archive De Decisión (ROD) Para El Área Contaminada Alrededor De VBI-70 (El Remedio")

   Summary of Declaration Pertaining to the Community Plan in the Record of Decision for the VBI-70 Superfund Site ("The Remedy")

7. Script - The Final Cleanup Decision for Residential Soils in the VB/I-70 Superfund Site Denver, Colorado October 2003

Addendum

Clayton Community Meeting – Anthony Thomas
Thursday, March 11, 2004 at 6:00, Hope Center
3400 Elizabeth St., Denver, Colorado 80205

- **Meeting Date:** This meeting was originally arranged for February 26th, 04. It was rescheduled for Thursday, March 11th at 6:00 at the Hope Center at 3400 Elizabeth St., Denver, Colorado 80205

- **Announcements:** Over 4000 bi-lingual flyers, with all of the remaining meetings listed, were distributed through the elementary schools in the VB-I70 area (Globeville and Swansea head start, invitations and phone calls to parents). The St Cajetan's Church Youth Group volunteered to place flyers door-to-door in the Clayton Neighborhood, but some residents said that some homes did not receive flyers. Flyers were also placed in local businesses such as the Panaderia Emanuel, El Defensor del Hispano and A to Z market. Recruitment for the meetings included the previously mentioned flyers, phone calls to every Head Start parent by the Globe and Swansea Head Start Staff and door to door invitations in the Globe neighborhood.

- **Agenda:** The agenda was to be created at the community meeting. Unfortunately, few community members attended the meeting; therefore, resulting in no agenda for this meeting.

- **Attendees:** 1 community member (This community member is an active member of the VB-I-70 Workgroup/CEASE meetings so no new input was recorded.

- **Minutes:** The minutes were to be created from the communities' questions and responses at the community meeting. Unfortunately, no community members attended the meeting, therefore, resulting in no agenda for this meeting.

Attendees: Anthony Thomas, Beverly Tafoya-Dominguez, Celia Vanderloop, Gene Hook, Rocio Perez, and Sunny Walker

March 11, 2004
VB I-70 Community Health Plan
Clayton – Hope Children's Program
3400 Elizabeth St., Denver, CO 80205

Attendees: Anthony Thomas, Beverly Tafoya-Dominguez, Celia Vanderloop, Gene Hook, Rocio Perez, and Sunny Walker

March 11, 2004
VB I-70 Community Health Plan
Clayton – Hope Children's Program
3400 Elizabeth St., Denver, CO 80205

CONTACT LIST AND MEETING NOTICES
for meeting of

March 11, 2004
VB I-70 Community Health Plan
Clayton - Hope Center Children's Program
3400 Elizabeth St, Denver, CO 80205

See Appendix A-2 for Copies of Contact Lists and Meeting Notices

Contact List
1. VB I-70 Community Health Plan Contacts

Meeting Notices
1. JOIN US VB-I70 Superfund Area (Clayton, Cole, Elyria-Swansea, South Globeville, or North Curtis Park)/Les Invitamos Superfondo Bulevar Vasquez e Interestatal 70 vecindarios de (Clayton, Cole, Elyria-Swansea, South Globeville, o North Curtis Park

MEETING HANDOUTS
for meeting of

March 11, 2004
VB I-70 Community Health Plan
Clayton - Hope Center Children's Program
3400 Elizabeth St, Denver, CO 80205

See Appendix A-3 for Copies of Listed Handout Materials

1. Arsenic in Soil

2. Lead in Soil

3. EPA Anuncia la Decisión Final de Limpieza para Suelos Residenciales en el Sitio de Superfondo VB/I-70

4. EPA Announcements the Final Cleanup Decision for Residential Soils in the VB/I-70 Superfund Site

5. Record of Decision

6. Sumario De La Declaración Perteneciendo Al Plan De La Comunidad En El Archive De Decisión (ROD) Para El Área Contaminada Alrededor De VBI-70 (El Remedio")

   Summary of Declaration Pertaining to the Community Plan in the Record of Decision for the VBI-70 Superfund Site ("The Remedy")

7. Script - The Final Cleanup Decision for Residential Soils in the VB/I-70 Superfund Site Denver, Colorado October 2003

APPENDIX A-2

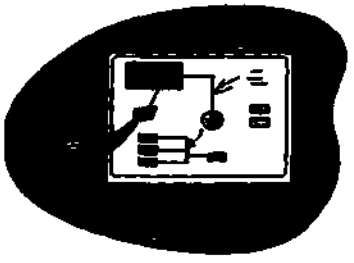
Community Meetings at Large

CONTACT LISTS AND MEETING NOTICES

Cole/Clayton/North Curtis Park/Les Invitamos
Cole Neighborhood Residents/Residentes del Barrio de Cole
Community Meeting/Junta del Vecindario
Join US/Les Invitamos
VB I-70 Community Health Plan Contacts

Cole/Clayton/North Curtis Park Residents

Many of us in this area worry about children's health. We know that harmful metals found in paint, soil and other items can hurt their health. Join us in the effort to help protect kids from these metals.



Help create a Community Health Plan that can help keep people safe from the metals that can hurt their health.

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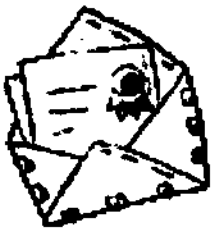
This plan could help kids have healthier and better lives.

DECEMBER 9th
5:30pm

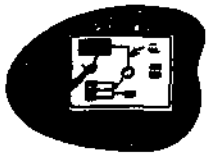
St Martin Plaza
1300 Bruce Randolph Avenue, Denver, CO 80205



Les Invitamos

¿Se preocupa de la salud de los niños en esta área? Sabemos que algunos de los metales en la pintura, la tierra y otras cosas podrían dañar a la salud de los niños. Ayúdenos formar un Plan de Salud para educar a las familias y proteger a los niños de estos metales.

&



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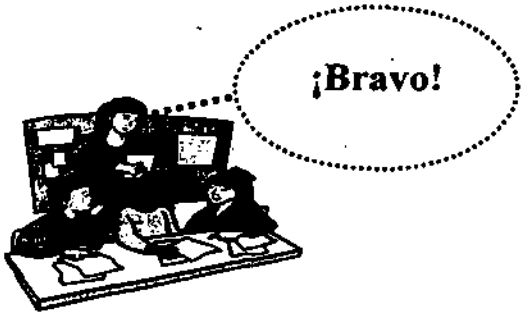
Juntos podemos hacer un Plan de Salud para proteger a los niños de los metales peligrosos.



Este plan podría ayudar a nuestros niños ser sanos y tener más éxito en la escuela.

Reunión

El martes 9 de diciembre a las 5:30p.m.
En el Saint Martin Plaza
1300 Bruce Randolph Avenue, Denver, CO 80205

Llame a Beverly 720-865-5471 o
Rocio 720-865-5456 para más información.

Cole Neighborhood Resident

Come to monthly meeting of the

Cole Neighborhood Organizing Alliance

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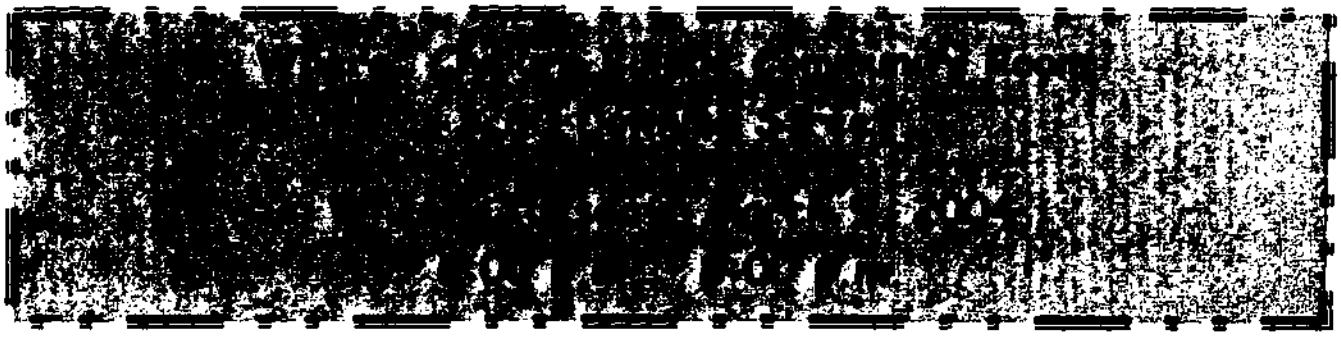
This evening at 7:15 PM, (during the alliance meeting), learn about the health plan that is being developed with the people who live in the Vasquez Boulevard-I70 Superfund Site. This plan will help to protect children from the metals in paint, soil and other items that could damage their health and ability to learn.

The Cole Neighborhood Organizing Alliance brings together Cole residents & resident-based neighborhood organizing groups working in coordination with Making Connections-Denver (Annie E. Casey Foundation) to improve the quality of life in the Cole neighborhood in Denver. Areas of focus include:

SAFETY *EDUCATION* ECONOMIC DEVELOPMENT

ENVIRONMENT YOUTH ***HUMAN RIGHTS***

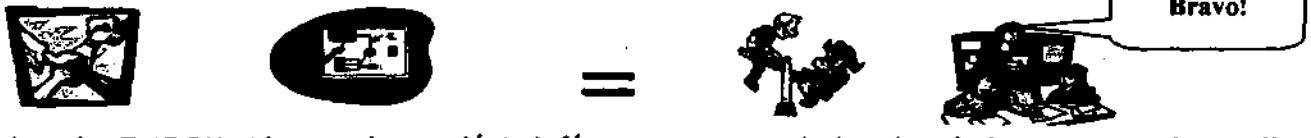


Food and childcare will be provided. If you have questions, please call our Alliance voice message service at (303) 297-9899 and your call will be returned.

Residente del Barrio de Cole

Venga a la reunión mensual de la

Alianza para la Organización del Barrio de Cole



Esta noche a las 7:15 PM, (durante la reunión), infórmese tocante al plan de salud que se esta desarrollando para el área de Superfondo del Bulevar Vásquez y la I70. El plan de salud servirá para proteger a los niños de los metales en la pintura, la tierra y otras cosas que podrían dañar a la salud y aprendizaje de los niños.

La Alianza para la Organización del Barrio de Cole reune a residentes y organizaciones (trabajando en la organización de residentes del barrio) en coordinación con Haciendo Conexiones-Denver (la Fundación Annie E. Casey) para mejorar la calidad de vida en el barrio de Cole en Denver.

Areas de enfoque incluyen:

SEGURIDAD DESARROLLO ECONÓMICO **AMBIENTE**

EDUCACIÓN JUVENTUD ***DERECHOS HUMANOS***

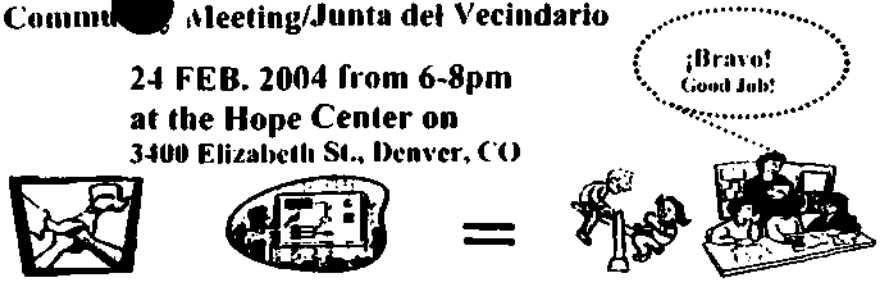
¿Dónde?: Clyburn Village, Salón de la Comunidad
3280 Downing Street

¿Cuándo?: martes, 9 de marzo del 2004
6:00 p.m. - 8:00 p.m.

Habrá comida y cuidado de niñ@s. Si tiene preguntas, llame por favor a nuestro servicio de mensajes de la Alianza al (303) 297-9899 y le responderemos lo más pronto posible.

Community Meeting/Junta del Vecindario

24 FEB. 2004 from 6-8pm
at the Hope Center on
3400 Elizabeth St., Denver, CO



Are you worried about the health of the children in this area? We know that harmful metals found in paint, soil and other items can hurt their health and ability to learn. Join us in forming a Community Health Plan to help protect kids from these metals.

¿Se preocupa de la salud de los niños en esta área? Los metales en la pintura, la tierra y otras cosas podrían dañar a la salud y aprendizaje de los niños. Ayúdenos hacer un plan de salud para proteger a los niños de estos metales.

Community Meeting/Junta del Vecindario

24 FEB. 2004 from 6-8pm
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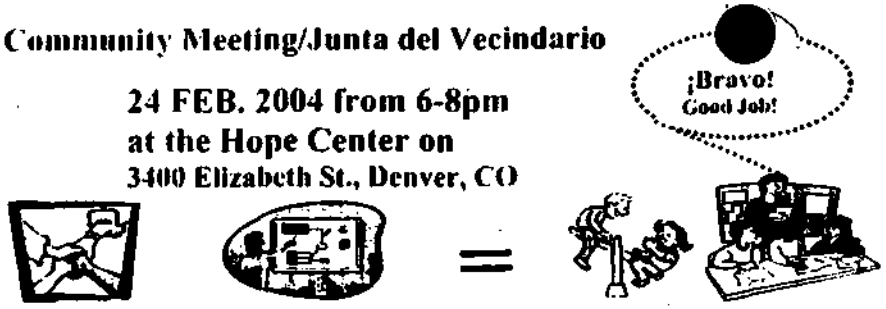

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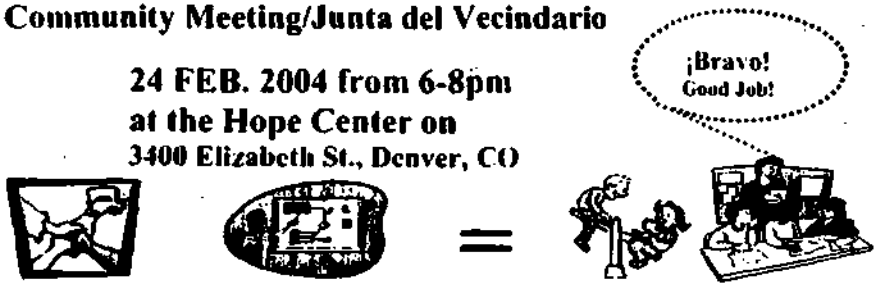

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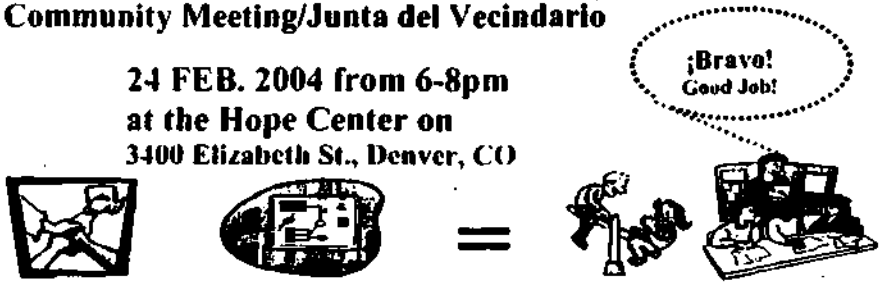

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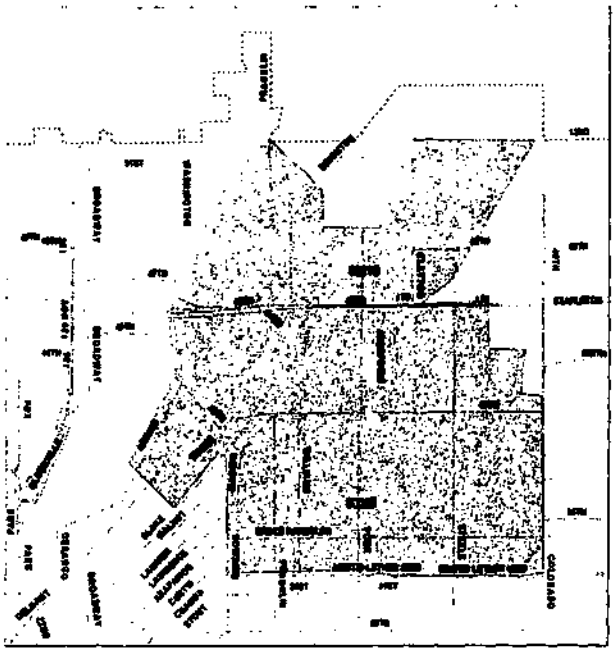
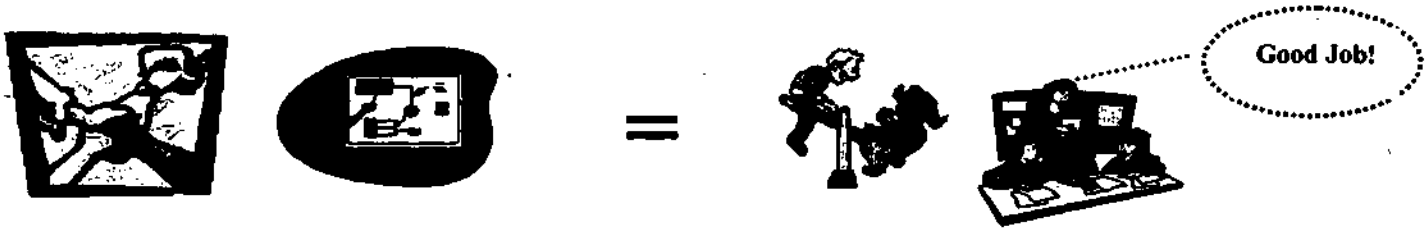


Do you live in the VB-I70 Superfund Area (Clayton, Cole, Elyria-Swansea, South Globeville, or North Curtis Park)?

Are you worried about the health of area children? We know that harmful metals found in paint, soil and other items can hurt their health and ability to learn. Join us in forming a Community Health Plan to help protect kids from these metals.



Please join us for one or more of the following meetings:

Program update:

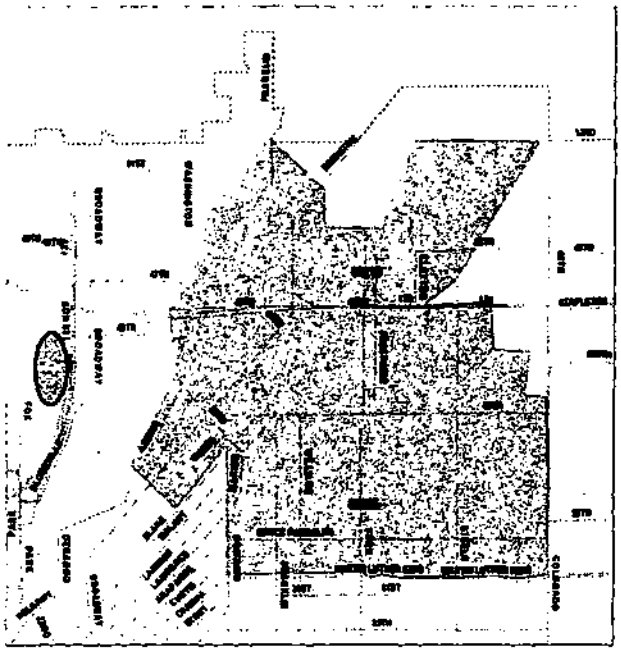
- **During the Cole Neighborhood Alliance Meeting-- Tuesday, March 9th at 7:20 p.m. at the Clyburn Village on 3280 Downing Street.**

You can make a difference! Join us for a program planning meeting:

- **Saturday, March 6th 2004 at 10:30 a.m. at St. Luke's Church on 3444 Madison St.,**
- **Monday, March 8th at 5:30 at the Globe and Swansea Head Start on 5100 Lincoln St., or**
- **Thursday, March 11th at 6:00 at the Hope Center on 3400 Elizabeth St.**

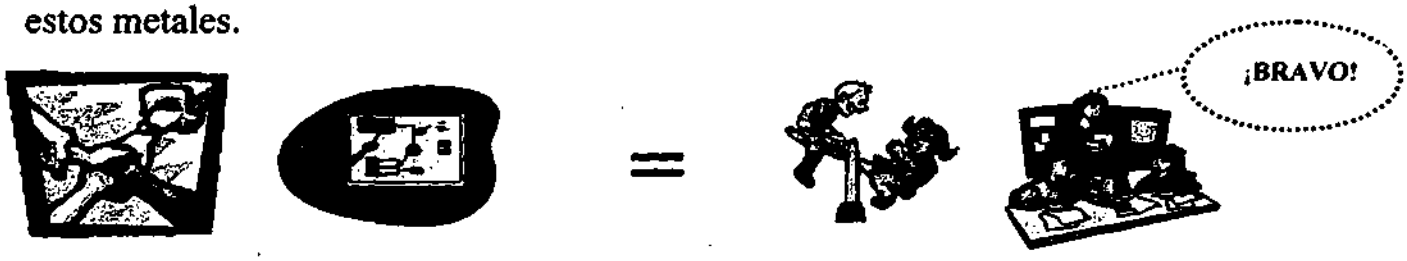
For more information call Beverly at 720-865-5471 or Rocio at 720-865-5456.

Les Invitamos



¿Vive UD en el sitio del Superfondo Bulevar Vasquez e Interestatal 70 (VB-I70) que consiste de los vecindarios de Clayton, Cole, Elyria-Swansea, South Globeville, o North Curtis Park?

¿Está UD apenado por la salud de los niños en la área? Sabemos que algunos de los metales en la pintura, la tierra y otras cosas pueden dañar a la salud y el aprendizaje de los niños. Ayúdenos en desarrollar un Programa de Salud Comunal para ayudar proteger a los niños estos metales.



Por favor venga a uno (o más) de estas juntas:

Breve presentación:

- **Durante la junta de la Alianza del Vecindario del Cole el Martes, 9 de marzo a las 6:00 p.m. en el Clyburn Village en la 3280 Calle Downing.**

¡UD si puede ayudar! Comparte sus ideas y ayúdenos planear el Programa de Salud.

- **Sábado, 6 de marzo 2004 a las 10:30 a.m. en la iglesia St. Luke en la 3444 calle Madison.**
- **Lunes, 8 de marzo 5:30 en el Head Start de la Globe y la Swansea Head Start en la 5100 Calle Lincoln o**
- **Jueves, 11 de marzo a las 6:00 en el Hope Center en la 3400 Calle Elizabeth**

Para más información llame a Beverly Tafoya-Dominguez en 720-865-5471 o Rocio Perez 720-865-5456

VB I-70 Community Health Plan Community Contacts

Resource Category	Name	Address	Contact	Phone
Churches	Annunciation Catholic Church	3621 Humboldt Street, Denver, CO 80205	Anita Kennedy	303 296-1024
	Apostolic Assembly	4985 St. Paul St., Denver, CO 80216	Pastor Daniel Salomon	303 294-0679
	Archdiocese Of Denver Metropolitan Tribunal	1300 S. Steele St., Denver, CO 80210	Rosemary Nelson, Risk Management	303 722-4687
	Bethsaida Temple	3930 W. 37th Ave., Denver, CO 80205	Pastor Earl Holloman	303 388-7317
	Bible Way Christian Training Center	3340 Bruce Randolph Ave., Denver, CO 80205	Not Available	303 399-3026
	Church of Christ	4368 Clayton St., Denver, CO 80216	Not Available	303 295-2579
	Community Seventh Day Adventist Church	2455 East 36th Ave., Denver, CO 80205	Not Available	303 329-0129
	Denver Gospel Hall	1631 Martin Luther King Blvd., Denver, CO 80205	Skip Crownhart	303 292-2710
	Epworth United Methodist Church	3401 High Street, Denver, CO 80205	King Harris	303 296-6287
	Globeville Community Church	5039 Lincoln Street, Denver, CO 80216	Pastor Salomon	303 296-8026
	Greater Harvest Church of God	4501 Lincoln Street, Denver, CO 80216	Not Available	303 292-9017
	Holy Rosary	4695 Pearl Street, Denver, CO 80216	Not Available	303 296-3283
	Holy Spirit Baptist Church	3563 Elizabeth Street, Denver, CO 80205	Not Available	303 388-9148
	Macedonia Baptist Church	3240 Adams Street, Denver, CO 80205	Pastor Morton	303 377-8821
	Mt. Calvary Lutheran Church	3560 York Street, Denver, CO 80205	Rev. Steve Bauer	303 297-3987
	Missionary Baptist	3456 Gilpin Street, Denver, CO 80205	Not Available	303 296-1177

VB I-70 Community Healt[illegible]an Community Contacts

Resource Category	Name	Address	Contact	Phone
Churches	Mt. Calvary Lutheran Church	3560 York Street, Denver, CO 80205	Rev. Steve Bauer	303 297-3987
	New Hope Baptist Church	3701 Colorado Blvd., Denver, CO 80205	Rev. Farley	303 322-5200
	Odom Memorial Church	3301 Williams Street, Denver, CO 80205	Pastor W. H. McDonald	303 292-5250
	Our Lady of Grace	2645 E. 48th Ave., Denver, CO 80216	Father Patrick Kennedy	303 297-3440
	Paradise Missionary Baptist Church	3715 Garfield Street, Denver, CO 80205	Not Available	303 355-8747
	People's Missionary Baptist Church	2501 Bruce Randolph Ave., Denver, CO 80205	Rev. Julius D. Grerce	303 377-0414
	Progressive Church of God	3205 Adams Street, Denver, CO 80205	Pastor B. C. Bryant	303 377-8983
	Salem Missionary Baptist Church	1720 Bruce Randolph Ave., Denver, CO 80205	Not Available	303 297-9221
	Shiloh Temple Free Church	4800 Cook Street, Denver, CO 80216	Not Available	303 377-5774
	Spottswood Ame Zion Church	3301 Milwaukee Street, Denver, CO 80205	Not Available	303 321-0354
	St. Cajaten's Church	299 S. Raleigh St. Denver, CO 80219	Linda Sosa	303 935-4483
	St. Joseph Polish	517 E. 46th Ave., Denver, CO 80216	Father Jan Mucha	303 296-3217
	Templo El Cordero	3799 Franklin Street, Denver, CO 80205	Not Available	303 298-1834
	Union Chapel	3622 Marion Street, Denver, CO 80205	Not Available	303 295-2144
	Wayside Church-God In Christ	3405 High street, Denver, CO 80205	Not Available	303 295-2484
Community Centers	Cole Family Resource Center	1812 East 33rd Ave., Denver, CO 80205	Not Available	303 295 4011 303 292-3341 f
	St. Luke Community Center	3444 Madison Street, Denver, CO 80205	Not Available	303 329-0079

VB I-70 Community Health Plan Community Contacts

Resource Category	Name	Address	Contact	Phone
Clinics / Hospitals	St. Anthony Central	4231 W. 16th Ave., Denver, CO 80204	Gloria Raigoza, RN,BSN MPA	303 629-2325 w 303 629 2121 f
Denver Public Schools	Denver Public Schools	900 Grant Street, 2nd Fl., Denver, CO 80203	Donna Shocks, Program Manager	303 764-3437 303 764-3599 f
Early Childhood Education	Clayton Head Start	3801 MLK. Blvd., Denver, CO 80205	Cathy McCarty	303 331-0650
	Clayton Foundation, Clayton College Campus	3801 MLK. Blvd., Denver, CO 80205	Cathy McCarty	303 355-4411
	Globe and Swansea Head start	5100 Lincoln St., Denver, CO 80216	Amanda Keller	303 296-2796
	Globe and Swansea Head start	5100 Lincoln St., Denver, CO 80216	Shannon Bills	303 296-2796
	Family Star Montessori	13331 East 33rd Ave., Denver, CO 80205	Terry Hudgens	303 295-7711
	Johnson Head Start Center	3560 Josephine St., Denver, CO 80205	Grant Farnsworth	303 388-5122
	Montessori-Garfield School	3993 MLK Blvd., Denver, CO 80205	Not Available	303 388-8828
	Northeast Montessori	3503 Marion St., Denver, CO 80205	Patsy Bruce	303 295-2509
Elementary Schools	Annunciation Elementary School	3536 Lafayette St., Denver, CO 80205	Sr. Gene Pastoral Assistant	303 295-2515
	Barrett Elementary	2900 Richard Allen Ct., Denver, CO 80205	Betty Johnson, Principal	303 388-5841
	Beach Court Elementary	4950 Beach Ct., Denver, CO 80205	Frank Roti, Principal	303 455-3607 m 303 764-7532 f
	Columbine Elementary	2540 E. 29th Ave., Denver, CO 80205	Dorothy Reed, RN	303 388-3617 303 764-7526 f
	Ebert Elementary	410 Park Ave. West, Denver, CO 80205	Joan Wamsley, Principal	303 295-7869 m 303 764-7647 f
Elementary Schools	Garden Place Elementary	4425 Lincoln St,. Denver, CO 80216	Tess Clinicos, RN	303 295-7785
	Harrington Elementary	2401 E. 37th Ave., Denver, CO 80205	Sally Edwards	303 333-4293

VB I-70 Community Health Plan Community Contacts

Resource Category	Name	Address	Contact	Phone
Elementary Schools	Maria Mitchell Elementary	1350 E. 33rd Ave., Denver, CO 80205	Reginald Robinson, Principal	303 296-8412 m 303 764-7803 f
	Pioneer Elementary	3230 E. 38th Ave. Denver, CO 80205	Dorothy Ward, Principal	303 329-8412 303 764-7999 f
	Swansea Elementary	4650 Columbine St., Denver, CO 80216	Janika Mahon, RN	303 296-8429
	Wyatt-Edison	3620 Franklin St., Denver, CO 80205	Day Reynolds	303 292-5515
Middle Schools	Cole Middle School	3240 Humboldt St. Denver, CO 80205	Mary Nor Wright, RN	303 296-8421
	Randolph Bruce	3955 Steele Street., Denver, CO 80205	Don Manzanares	303 320-5606
High Schools	Millennium Quest	1700 E. 28th Ave., Denver, CO 80205	Diane Deschanel	303 391-6300
Library	Valdez-Perry Branch	4690 Vine Street, Denver, CO 80216	Pilar Castro-Reino, Manager	303 295-4302
Neighborhood Associations and Community Leaders	Civic Association of Clayton	3840 York ST., Denver, CO 80205	Anthony Thomas	303 399-1379
	Clayton Community Leader	3228 Josephine, Denver, CO 80205	Joan Hooker	303 322-0920
	Clayton Neighborhood Association	3202 Madison St., Denver, CO 80205	Dr. Beverly Lumumba, Ph.D.	303 377-6629
	Cole Neighborhood Association	3553 Lafayette St., Denver, CO 80205	Sandy Douglas	303 295-4525 303 296-1026 f
	Cole Neighborhood Association	3553 Lafayette St., Denver, CO 80205	Mrs. Juana Gonzales	303 295-4525 m 303 296-1026 f
	Elyria Business Association	#3 Red Fox Lane Littleton, CO 80127	Mr. Larry L. Burgess	303 956-8572
	Globe Civic Association	P.O. Box 16484 Denver, CO 80216	John Zapien	303 296-4657

VB I-70 Community Health Plan Community Contacts

Resource Category	Name	Address	Contact	Phone
Other	Emmanuel's Bakery	500 E 45th Ave., Denver, CO 80205	Irma Valenzuela	303 292-6799
	Defensor del Hispano	4500 Sherman St., Denver, CO 80216	Not Available	No Phone Number
	Women's Bean Project	3201 Curtis, Denver, CO 80205	Amanda	303 292-1919
Recreation Centers	Johnson Recreation Center	4809 Race Street, Denver, CO 80216	Victor Deleon, Director	303 295-4477
	St. Charles Recreation Center	3777 Lafayette Street, Denver, CO 80205	Thomas Herndon	303 295-4462
	Swansea Recreation Center	2650 E. 49th Ave., Denver, CO 80216	Phil Madrid, Director	303 295-4434
Senior Centers	Clyburn Village Denver	3280 Downing Street, Denver, CO 80205	Joseph Marquez	303 293-0278

APPENDIX A-3

Community Meetings at Large

MEETING HANDOUTS

Arsenic in Soil

Lead in Soil

EPA Anuncia la Decisión Final de Limpieza para Suelos Residenciales el Sitio de Superfondo VB/I-70

EPA Announcements the Final Cleanup Decision for Residential Soils in the VB/I-70 Superfund Site

Record of Decision

Summary of Declaration Pertaining to the Community Plan in the Record of Decision for the VBI-70 Superfund Site ("The Remedy") / Sumario De La Declaración Perteneciendo al Plan De La Comunidad En El Archive De Decisión (ROD) Para El Área Contaminada Alrededor De VBI-70 (El Remedio")

The Final Cleanup Decision for Residential Soils in the VB/I-70 Superfund Site Denver, Colorado October 2003

Arsenic in Soil

Soil and Your Health
Doctors and scientists from the Agency for Toxic Substances and Disease Registry (ATSDR) have looked at test results from soil collected in you neighborhood to see whether the amount of arsenic is high enough to cause health problems for people who live in the area. ATSDR found that the amount of arsenic in some yards might be a health concern for some children and adults.

How Can Arsenic Get into the Body?
Soil that contains arsenic can get into your body:

- While playing
- While gardening
- While working in your yard

We sometimes touch things that have dirt or dust on them and the put our hands or other items into our mouths. When this happens, small amounts of arsenic can get into our bodies along with the dirt or dust.

Swallowing these small amounts of soil with arsenic usually will not cause health problems. But if arsenic in soil is too high, children and adults might become sick.

Adults and Arsenic
Arsenic levels and cancer are a concern for people who grew up in a house with high levels of arsenic in soil and who continued to live in the house as adults. These people could have a higher chance of getting certain types of cancer, such as skin cancer and cancer of the lung, bladder, kidney, and liver.

Children and Arsenic
Soil-Pica
Some preschool children eat large amounts of soil (1 teaspoon or more) while playing and exploring their world. This is called soil-pica behavior.

Soil-pica behavior is especially a concern for children who live in areas with high arsenic levels in soil. After eating large amounts of soil with high levels of arsenic, these children could have health problems, such as:

- Nausea or upset stomach
- Stomach cramps
- Vomiting
- Diarrhea
- Swelling of the face (especially around the eyes)
- Headaches

You Can Protect Yourself

Here are a few things that you can do to protect your family from arsenic in the soil. These tips are especially important if you live in an area with high arsenic levels in soil. These tips are good steps for everyone to follow:

- Watch your preschool children when they are playing outside. Keep them from eating dirt or mud and from putting toys in their mouths.
- Talk to older children about the possible danger of eating soil.
- Encourage preschool children to play in areas of the yard that are covered by grass.
- Talk to adults about not eating soil or mud from their yards.

Where Can I Get More Information About Exposure to Arsenic in Soil and Soil-Pica Behavior?

Chris Poulet, ATSDR Denver
303-312-7012

Margaret Schonbeck, Colorado Department of Public Health and Environment
303-692-2636

Lead in Soil

Soil and Your Health
Doctors and scientists from the Agency for Toxic Substances and Disease Registry (ATSDR) have looked at test results from soil collected in you neighborhood to see whether the amount of lead is high enough to cause health problems for people who live in the area. ATSDR found that the amount of lead in some yards is at levels that are of concern for some children.

Common Sources of Lead

- Soil
- Old house paint (especially houses built before 1960)
- Dust
- Plastic window blinds
- Imported pottery/dishes
- Home remedies (Azarcon, Greta)
- Drinking water

How Can Lead Get into the Body?
Soil that contains lead can get into the body in many ways. When children play, they sometimes touch things that have dirt or dust on them and then put their hands or other items into their mouths. When this happens, small amounts of lead can get into their bodies along with the dirt or dust.

Swallowing small amounts of soil with lead usually will not cause health problems. But if the amount of lead in soil is too high, children might become sick.

Possible Health Effects from Lead
Most children with lead poisoning don't have symptoms. The only way to know if a child has lead poisoning is to get their blood tested. However, when children have high levels of lead in their bodies, they might have health problems, such as:

- Hearing problems
- Speech, language, and behavior problems
- Lowered intelligence scores
- Delays in development
- Trouble sleeping
- Poor muscle coordination
- Loss of appetite

Ways to Prevent Children from Getting Lead Poisoning

- Wash child's hands at least 5 times per day and always before eating and taking naps
- Wash toys frequently
- Give them foods rich in Vitamin C, calcium, and iron
- Clean floors and window sills with detergent and water
- Wipe up any paint chips with a wet sponge, rag, or paper towels. If you suspect the paint has lead, throw the sponge, rage, or paper towels away after cleaning
- If you are remodeling an older home, NEVER dry sand or scrape lead based paint
- Encourage your children to play in grassy areas instead of on dirt.

Where Can I Get More Information About Exposures to Lead in Soil?
If you think your child has been exposed to lead, you may contact:

Mishelle Macias
Colorado Department of Public Health and Environment
303-692-2622 or 303-692-2700

Gene Hook
City and County of Denver
720-865-5452

EPA
United States
Environmental Protection
Agency

Region 8
999 18th St., Ste. 300
Denver, CO 80202

Colorado, South Dakota,
North Dakota, Wyoming,
Montana, Utah

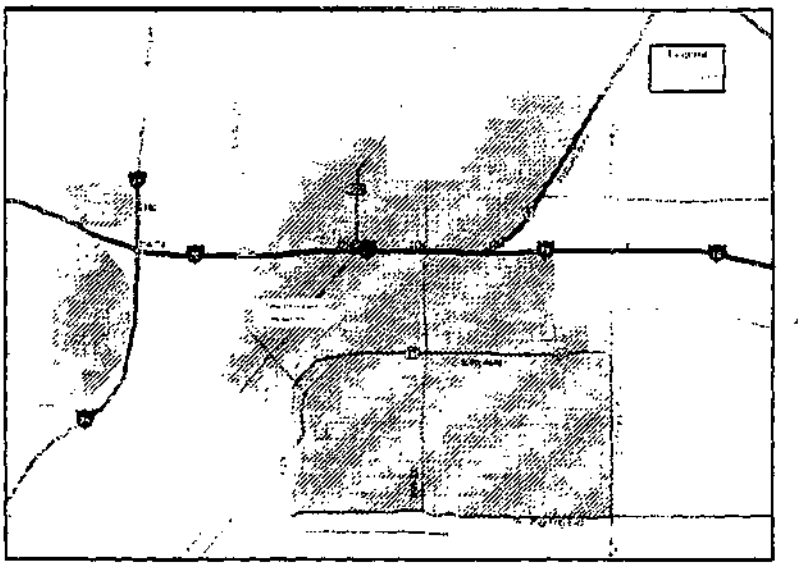
EPA Anuncia la Decisión Final de Limpieza para Suelos Residenciales en el Sitio de Superfondo VB/I-70

Denver, Colorado **Octubre 2003**

Introducción

La Agencia de Protección Medioambiental de los Estados Unidos (EPA) se enorgullece en anunciar la decisión final de limpieza para la porción de suelos residenciales del sitio de Superfondo del Vasquez Boulevard/Interestatal 70 (VB/I-70) en el noreste de Denver. La EPA ha estado trabajando durante más de cuatro años con representantes de la comunidad local, el estado, y agencias del gobierno federal para investigar los elevados niveles de plomo y arsénico en los suelos de los jardines de la zona.

El 25 de Septiembre de 2003, la EPA y el Departamento de Salud Pública y Medioambiente de Colorado (CDPHE) firmaron un Registro de Decisión (ROD). El Registro de Decisión es el documento formal que describe el plan de limpieza. Este pliego de datos discute los detalles del Registro de Decisión y contesta varias de las preguntas más comunes acerca de la limpieza.



VB/I-70 Superfund Site

El Registro de Decisión y otra información referente al sitio VB/I-70 se pude encontrar en estas direcciones:

Coalición Cross Community, 2332 East 46th Street

Biblioteca Valdez-Perry
4690 Vine Street

Biblioteca Ford Warren
2835 High Street

Centro de Registros de la EPA
999 18th Street, 3rd Fl.

o visite el sitio Web:
http://www.epa.gov/region08/superfund/sites/co/vbi70.html

o contacte:
Victor Ketellapper, Director de Proyectos de la EPA
(303) 312-6578;

Jennifer Chergo, Participación Comunitaria de la EPA
(303) 312-6601; o

Patricia Courtney, Participación Comunitaria de la EPA
(303) 312-6631

EPA

La Comunidad

El sitio VB/I-70 incluye los vecindarios de Denver de Cole, Clayton, Swansea, Elyria, suroeste de Globeville, y la parte norte del Parque Curtis. De acuerdo al Censo de 2000, la población total viviendo en estos vecindarios es 17545, incluyendo, aproximadamente, 2400 niños de seis años de edad o menores. La EPA considera el Sitio de Superfondo VB/I-70 un Sitio de Justicia Medioambiental. Esto es debido a que los residentes de este vecindario son predominantemente minorías con bajos ingresos. Es también debido a que el área tiene más fuentes de contaminación medioambiental que las que normalmente se encuentran juntas en otras zonas de la ciudad. Estas fuentes de contaminación incluyen fuentes de origen industrial, otros sitios de Superfondo, y principales corredores de transporte.

Debido a la naturaleza de Justicia Medioambiental de la comunidad, la EPA ha trabajado duramente durante esta investigación medioambiental para ser todo lo participativa y justa posible, y continuará actuando de esta manera durante la limpieza. Los vecindarios afectados están representados por varios representantes de la comunidad. Su continua participación y comentarios han sido muy valiosos para la EPA durante todo este proceso, y han llevado a una decisión de limpieza apoyada por la comunidad así como por la EPA y las demás agencias involucradas.

La Investigación

El CDPHE conllevó una limpieza en Globeville durante los 90, cerca de los vecindarios de VB/I-70, que indicó que algunos de los jardines de los vecindarios de VB/I-70 podrían contener altos niveles de metales pesados. En 1998, la EPA comenzó a investigar la naturaleza y extensión de la contaminación metálica en los jardines de VB/I-70. Durante los siguientes años, en colaboración con el CDPHE, otras agencias gubernamentales, y los representantes de la comunidad, la EPA muestreo extensivamente los jardines y produjo numerosos estudios. Los resultados mostraron que plomo y arsénico son las dos fuentes metálicas primarias de preocupación en los suelos de VB/I-70. Aprendimos que algunos jardines tiene niveles de plomo o arsénico lo suficientemente altos que la EPA removerá y reemplazará esos suelos para proteger la salud de los residentes que allí viven.

La EPA ha reemplazado suelos en cerca de 50 hogares, y está actualmente reemplazando suelos en más de 140 hogares este otoño. Estos jardines tienen algunos de los valores más elevados de plomo y/o arsénico registrados, y presentan un riesgo para la salud de los residentes de la zona.

La Decisión Final

El Registro de Decisión de VB/I-70 (ROD) es un documento que describe las decisiones finales de limpieza de la EPA para aquellos jardines que aún contienen niveles elevados de plomo y/o arsénico en los vecindarios de VB/I-70. La limpieza consistirá de tres partes: removido del suelo y reemplazamiento, programa de salud para la comunidad, y continuación del muestreo de los suelos.

Removido del Suelo: La EPA removerá y reemplazará suelos en jardines donde el contenido medio de plomo esté por encima de **400 partes por millón (ppm).** La EPA también removerá y reemplazará suelos en jardines donde el contenido más alto en arsénico está por encima de **70 ppm**. El removido de estos suelos es de carácter voluntario y se realizará sin coste alguno para los propietarios. La EPA estima que aproximadamente 850 jardines requerirán del removido y reemplazamiento del suelo. Este trabajo espera completarse en un plazo de tres a cinco años.

Programa de Salud para la Comunidad: Algunos niños del sitio de Superfondo VB/I-70 tienen altos niveles de plomo en la sangre lo suficientemente altos para presentar un riesgo para su salud. Sin embargo, los niños pueden estar expuestos a diferentes fuentes de plomo, como la pintura plomada de sus casas. Así también, algunos niños exhiben el comportamiento denominado Pica. Estos niños intencionalmente se comen cantidades inusualmente grandes de tierra, y, en consecuencia, están expuestos a plomo y arsénico en el suelo en bajos niveles de concentración, así como a bacterias y otras substancias dañinas.

Como residentes y niños en VB/I-70 están en una zona de Justicia Medioambiental. Y están expuestos a una variedad de impactos ambientales, la EPA diseñó el Programa de Salud para la Comunidad como complemento al removido de los suelos. El Programa de Salud para la Comunidad es un programa de acercamiento que proveerá a los residentes con información sobre la exposición al plomo en general, el comportamiento Pica, y otros varios temas de salud medioambiental.

El Programa de Salud para la Comunidad proporcionará pruebas para cualquier niño de la zona VB/I-70 para la exposición al plomo y al arsénico. Si los resultados de las pruebas de cualquier niño presentan alto contenido en plomo o arsénico, el Programa de salud para la Comunidad pondrá a disposición del cuidado de la salud del niño profesionales en las áreas del cuidado de la salud y de la salud medioambiental.

El Programa de Salud para la Comunidad será adaptado a las necesidades individuales de cada

vecindario. El Programa continuará durante toda la duración del trabajo de limpieza.

Muestreo de los Suelos; Desde el comienzo de la investigación del sitio VB/I-70, la EPA muestreó suelos residenciales en más de 3000 de los 4000 hogares afectados en la zona. Sin embargo, cerca de 1000 jardines en el área de VB/I-70 aún no han sido muestreados. El muestreo del suelo se lleva a cabo, de forma gratuita, en cualquier propiedad dentro de los límites de la zona VB/I-70, aunque para ello la EPA necesita obtener acceso para muestreo otorgado por el propietario. Durante toda la duración de la limpieza, la EPA continuará sus intentos de ganar acceso a aquellas propiedades que aún no hayan sido muestreadas.

En general, el plan final de limpieza para VB/I-70 costará unos $31 millones aproximadamente. El plan se basa en la Alternativa 6 del Plan de Limpieza Propuesto de la EPA presentado en Mayo de 2003. La EPA recibió comentarios del público referentes al Plan Propuesto durante 30 días. Basándose en esos comentarios y el apoyo de la Alternativa 6 por parte de los representantes comunitarios, el CDPHE y otras agencias, la EPA seleccionó la Alternativa 6 como el plan final de limpieza. El remedio seleccionado cumple todos los requisitos y mandatos federales y estatales y protege la salud humana y el medioambiente.

Preguntas más Frecuentes

En base a comentarios formales del público, discusiones informales de grupo, y conversaciones individuales, la EPA está al tanto de ciertas inquietudes y preguntas referentes al plan final de limpieza y a la investigación medioambiental en general. Algunas de estas preguntas se presentan a continuación.

Q. ¿Por qué algunos jardines están siendo limpiados y otros no?
A. No todos los jardines necesitan ser limpiados. Solamente 850 de los 4000 hogares en la zona tienen niveles de plomo y/o arsénico lo suficientemente elevados como para necesitar ser limpiados.

Q. ¿Cómo es posible que mi vecino necesite que su suelo sea limpiado y yo no, si vivimos puerta con puerta?
A. Hemos descubierto que es muy normal que un suelo tenga altos contenidos en plomo y/o arsénico y el suelo de la propiedad colindante presente muy bajos niveles de las mismas substancias. Esto es debido en parte a la fuente de contaminación y el historial de la propiedad.

Q. ¿Cuáles son los requisitos que necesito cumplir para que mi suelo sea limpiado?
A. La EPA muestreará su suelo de forma gratuita. Si usted tiene niveles de plomo por encima de 400 ppm o de arsénico superiores a 70 ppm, usted cumple los requisitos para que su suelo sea limpiado.

Q. ¿Cuánto tiempo he de esperar para que mi suelo sea limpiado?
A. Todo el proyecto de limpieza llevará de tres a cinco años. Ahora mismo, no podemos decirle si su suelo será limpiado el año próximo o en uno de los años siguientes.

Q. ¿Ha sido muestreado mi suelo?
A. Para encontrar la respuesta simplemente llame a uno de los representantes de la EPA listados al final de la primera página de esta hoja de datos.

Q. ¿Puede la EPA remover pintura plomada del exterior e interior de nuestra casa, asimismo como del suelo?
A. A través del Programa de Salud para la Comunidad, la EPA coordinará los esfuerzos de colaboración entre la EPA y otras agencies federales y estatales que puedan aportar fondos y llevar a cabo el removido de la pintura plomada. El dinero presupuestado para los sitios de Superfondo puede ser empleado para el removido de la pintura plomada exterior de las casas donde el suelo esté siendo reemplazado, pero únicamente después de haber demostrado que no hay otras fuentes disponibles de financiación. El dinero de los sitios de Superfondo no puede emplearse en el removido de la pintura plomada del interior de las casas.

Q. ¿Cuándo se nos darán más detalles con respecto al Plan de Salud para la Comunidad?
A. El Plan de Salud para la Comunidad se desarrollará en un esfuerzo de colaboración que comenzará este invierno. La comunidad recibirá información tan pronto como este disponible.

Próximos Pasos

Durante este otoño, la EPA continuará agradeciendo el acceso a cualquier jardín que no haya sido muestreado dentro de la zona de VB/I-70. Asimismo, la EPA finalizará el removido y reemplazamiento de más de 140 jardines con los niveles más altos de plomo y arsénico.

Este invierno, la EPA, el Departamento de Salud Medioambiental de Denver, representantes de la comunidad, y otras organizaciones y agencias comenzarán a desarrollar los detalles del Plan de Salud para la Comunidad. Busque información sobre el Plan en su buzón de correos durante los próximos meses.

La próxima primavera, la EPA comenzará el removido y reemplazamiento de aquello suelos con niveles de plomo superiores a 400 ppm y/o niveles de arsénico por encima de 70 ppm. Si su suelo necesita limpieza. La EPA se pondrá en contacto con usted por teléfono o por correo antes de la limpieza.

United States Environmental Protection Agency

Region 8
999 18th St., Ste. 300
Denver, CO 80202

Colorado, South Dakota, North Dakota, Wyoming, Montana, Utah

EPA Announces the Final Cleanup Decision for Residential Soils in the VB/I-70 Superfund Site

Denver, Colorado **October 2003**

The Record of Decision and other VB/I-70 information can be found at these locations:

Cross Community Coalition, 2332 East 46th Street

Valdez-Perry Library
4690 Vine Street

Ford Warren Library
2835 High Street

EPA Records Center
999 18th Street, 3rd Fl.

or, visit the Web site at:
http://www.epa.gov/region08/superfund/sites/co/vbi70.html

or contact:
Victor Ketellapper, EPA Project Manager
(303) 312-6578;

Jennifer Chergo, EPA Community Involvement
(303) 312-6601; or

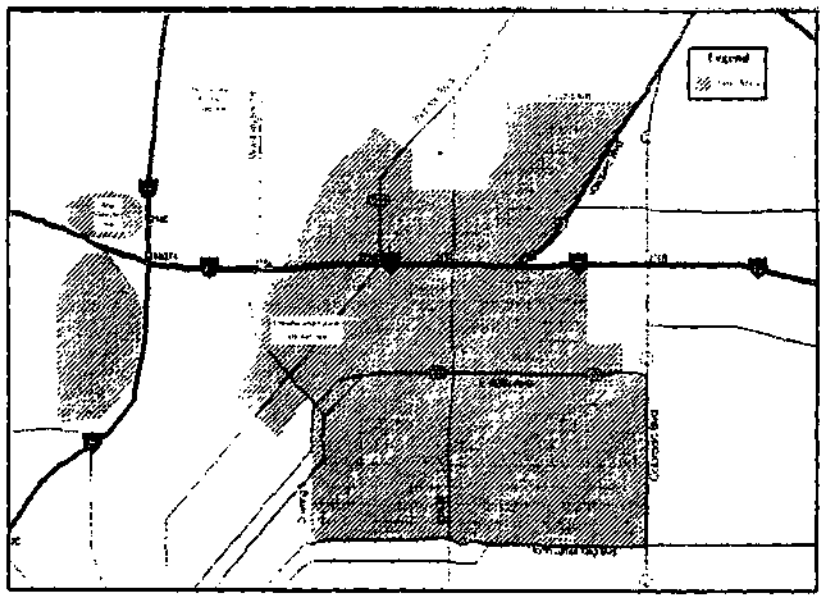
Patricia Courtney, EPA Community Involvement
(303) 312-6631

para Espanol, llame
(303) 312-6384

Introduction

The United States Environmental Protection Agency (EPA) is proud to announce the final cleanup decision for the residential soils portion of the Vasquez Boulevard/Interstate 70 (VB/I-70) Superfund Site in northeast Denver. EPA has been working for more than four years with community representatives and local, state, and federal governmental agencies to investigate elevated levels of lead and arsenic in the soils of yards in the area.

On September 25, 2003, EPA and the Colorado Department of Public Health and Environment (CDPHE) signed a Record of Decision (ROD). The Record of Decision is the formal document that describes the cleanup plan. This fact sheet discusses the details of the Record of Decision and answers many frequently asked questions about the cleanup.



VB/I-70 Superfund Site

EPA

The Community

VB/I-70 includes the Denver neighborhoods of Cole, Clayton, Swansea, Elyria, southwest Globeville, and a northern section of Curtis Park. According to the 2000 Census, the total population living within these neighborhoods is 17,545, including approximately 2,400 children six years old or younger. EPA considers the VB/I-70 Superfund Site an Environmental Justice Site. This is because the neighborhood residents are predominately low-income and minority. It is also because the area has more sources of environmental pollution than are found together in most other parts of the city. These pollution sources include industry, other Superfund sites, and major transportation corridors.

Due to the Environmental Justice nature of the community, EPA has worked hard to be as inclusive and fair as possible during this environmental investigation and will continue this approach during the cleanup. The affected neighborhoods are represented by many committed community representatives. Their continued participation and input has been very valuable to EPA throughout this entire process, and has led to a cleanup decision supported by the community as well as EPA and the other agencies involved.

The Investigation

CDPHE led a cleanup during the 1990s in Globeville, next to the VB/I-70 neighborhoods, that indicated some yards in the VB/I-70 neighborhoods could have high levels of heavy metals. In 1998, EPA began investigating the nature and extent of metals contamination in VB/I-70 yards. Over the next few years, in collaboration with CDPHE, other governmental agencies, and community representatives, EPA extensively sampled area yards and produced numerous studies. The results showed that lead and arsenic are the two primary metals of concern in VB/I-70 soils. We learned that some yards have high enough levels of either lead or arsenic that EPA will remove and replace those soils to protect the health of the residents living there.

EPA already replaced soils at nearly 50 homes, and is currently replacing soils at more than 140 homes this fall. These yards had some of the highest levels of lead and/or arsenic measured, and posed a health risk to residents there.

The Final Decision

The VB/I-70 Record of Decision (ROD) is a document that describes EPA's final cleanup decision for those remaining yards with elevated levels of lead and/or arsenic in the VB/I-70 neighborhoods. The cleanup will consist of three parts: soil removal and replacement, a community health program, and on-going soil sampling.

Soil Removal: EPA will remove and replace soil at yards where the average lead concentration is above **400 parts per million (ppm).** EPA will also remove and replace soil at yards where the highest arsenic concentration is above **70 ppm**. These soil removals are voluntary and will be completed at no cost to the homeowner. EPA estimates that approximately 850 yards will require a soil removal and replacement. The work is expected to take three to five years to complete.

Community Health Program: Some children in the VB/I-70 Superfund Site have levels of lead in their blood high enough to be a health concern. However, children may be exposed to many different sources of lead such as lead paint in their homes.. In addition, some children exhibit a behavior called Soil Pica. These children intentionally eat unusually large amounts of soil, and are thus exposed to arsenic and lead at very low levels in the soil, as well as bacteria and possibly other harmful substances.

Since residents and children in VB/I-70 are in an Environmental Justice area, and are exposed to a variety of environmental impacts, EPA designed the Community Health Program to complement the soil removals. The Community Health Program is an outreach program that will provide residents with health information about lead exposure in general, Soil Pica behavior, and any number of other environmental health topics.

The Community Health Program will also provide testing for any child in the VB/I-70 area for exposure to lead and arsenic. If any child tests high for lead or arsenic, the Community Health Program will provide for environmental and health care professionals to respond to and help that child.

The Community Health Program will be tailored individually to each neighborhood's

particular needs. The Program will continue through the duration of the soil cleanup work.

Soil Sampling: Since beginning the VB/I-70 investigation, EPA sampled yard soils at more than 3,000 of the 4,000 affected homes in the area. However, nearly 1,000 yards in the VB/I-70 area still have not been sampled. Soil sampling is done at any property within the VB/I-70 boundaries for free, though EPA must be granted access to sample by the property owner. For the duration of the cleanup, EPA will continue to attempt to gain access at those properties that have not been sampled.

Overall, the final cleanup plan for VB/I-70 will cost approximately $31 million. The plan is based on Alternative 6 from EPA's Proposed Cleanup Plan issued in May 2003. EPA received public comment on that Proposed Plan for 30 days. Based on those comments and support for Alternative 6 from community representatives, CDPHE and other agencies, EPA selected Alternative 6 as the final cleanup plan. The selected remedy meets all federal and state requirements and mandates and is protective of human health and the environment.

Frequently Asked Questions

Based on formal public comments, informal group discussions, and individual conversations, EPA is aware of certain common concerns and questions about the final cleanup plan and about the environmental investigation in general. Some of these questions are listed below.

Q. Why are some yards being cleaned up, but others are not?
A. Not all yards need to be cleaned up. Only about 850 of the 4,000 homes in the area have levels of lead and/or arsenic high enough to require a cleanup.

Q. How can my neighbor need his soil removed but I don't, and we live next door to each other?
A. We discovered that it is very common for one yard to have high levels of lead and/or arsenic and the yard next door to have very low levels. We believe this is at least partly because the source of the contamination and the history of the property.

Q. How do I qualify to have my yard cleaned up?
A. EPA will sample your soil for free. If you have levels of lead above 400 ppm or arsenic above 70 ppm, then you qualify for a cleanup.

Q. How long will I have to wait to have my soil cleaned up?
A. The entire cleanup project could take from three to five years. Right now, we cannot tell you if your yard will be in next year's cleanup or in one of the following years

Q. Has my yard been sampled?
A. To find out, simply call one of the EPA representatives listed on the first page of this fact sheet.

Q. Can EPA remove lead paint from the outside and inside of our home, as well as from our soil?
A. Through the Community Health Program, EPA will coordinate with other federal, state, or local agencies that can provide funding for and/or conduct lead paint removal. Superfund dollars may be used to remove exterior lead paint at homes where the soil is replaced, but only after determining that other funding sources are not available. Superfund dollars cannot be used to remove lead paint on the interior of homes.

Q. When will we receive more details on the Community Health Program?
A. The Community Health program will be developed in a collaborative process beginning this winter. The community will receive information as soon as it is available.

Next Steps

Throughout this fall, EPA will continue to welcome access to any yards that have not yet been sampled within the VB/I-70 area. EPA will also finish removing and replacing soils at more than 140 yards that have the highest levels of lead and arsenic.

This winter, EPA, Denver Department of Environmental Health, CDPHE, community representatives, and other organizations and agencies will begin to develop the details of the Community Health Plan. Look for information about that Plan in your mailbox in upcoming months.

Next spring, EPA will begin removing and replacing those yards with lead levels above 400 ppm and/or arsenic above 70 ppm. If your yard needs a cleanup, EPA will contact you by phone and by mail in advance.

Summary of Declaration Pertaining to the Community Plan in the Record of Decision for the VB-I-70 Superfund Site ("The Remedy")

The selected remedy is made of 3 components: a community health program, a soil removal program and soil sampling. The Community Health Program (CHP) will have three different parts: 1) a group and individual education program, 2) a biomonitoring program to find out the arsenic and lead levels of area children and 3) a response program to provide families whose children have high levels of arsenic or lead in their bodies with home and environment testing, and case management services. If a child has a high level of lead &/or arsenic in his or her body and the soil in the yard has a high lead &/or arsenic level, that yard will have the soil removed as soon as possible.

The program will have two separate project areas. The first project area will be to educate families with children about how to protect the children from all lead hazards.

The second project area will be to help lower the risk of arsenic poisoning in children with pica. (Children who eat dirt have a medical problem called pica.)

People can choose to take part in either program or not, participation is voluntary. There will be no charge to people who live or own property in the VB-170 for services listed in this flyer.

The CHP will be offered until the soil removal is finished.

Sumario De La Declaración Perteneciendo Al Plan De La Comunidad En El Archivo De Decisión (ROD) Para El Área Contaminada Alrededor Del VB-I-70 ("El Remedio")

El remedio seleccionado está compuesto de 3 partes: un programa de salud para la comunidad, un programa de remover la tierra contaminada y pruebas de la tierra. El Programa de Salud para la Comunidad (CHP) tendrá tres diferentes partes: 1) un programa de educación comunal e individual, 2) un programa de exámenes médicos para medir los niveles del plomo y del arsénico en los niño(a)s y 3) un programa para responder a las familias quienes tienen niño(a)s con altos niveles de arsénico o plomo en sus cuerpos con investigaciones caseros y ambientales, y administración del caso. Si un niño(a) tiene altos niveles del plomo y/o arsénico en su cuerpo y el patio (yarda) contiene altos niveles del plomo y/o arsénico el patio se removerá la tierra del patio lo más pronto posible.

El programa tendrá dos proyectos. El primero será uno de educación para las familias con niño(a)s sobre la protección de sus niño(a)s de todos tipos de plomo. El segundo será para reducir los riesgos del envenenamiento del arsénico en los niño(a)s que comen tierra. (Estos niño(a)s tienen una condición que se llama "pica"y se pronuncia payca.)

Las personas pueden elegir tomar parta en un programa o ambos programas. La participación será voluntaria. Si vive en el área de VB-170 no cobraran para los servicios anotados en esta hoja.

El programa CHP será ofrecido mientras se termine la limpieza de la tierra contaminada en esta área.

RECORD OF DECISION

Vasquez Boulevard/Interstate 70 Superfund Site

Operable Unit 1 Residential Soils

Environmental Protection Agency
Region 8

September 25, 2003

RECORD OF DECISION
FOR
VASQUEZ BOULEVARD/I 70 SUPERFUND SITE
OPERABLE UNIT 1, RESIDENTIAL SOILS

CITY AND COUNTY OF DENVER, COLORADO

DECLARATION

Site Name and Location

The Vasquez Boulevard and I-70 (VB/I-70) Superfund Site (Site) is comprised of approximately 4.5 square miles, located in the north-central section of the City and County of Denver, Colorado. This document represents the Record of Decision (ROD) for the Operable Unit No. 1 (Residential Soils) remedial action. Operable Unit No. 1 (OU1) encompasses four neighborhoods in north-central Denver that are largely residential: Swansea, Elyria, Clayton, and Cole. OU1 also includes the southwest portion of the Globeville neighborhood and the northern portion of the Curtis Park Neighborhood.

Statement of Basis and Purpose

This decision document presents the Selected Remedy for OU1 of the VB/I-70 Site. The remedy selected in this ROD was chosen in accordance with the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, as amended by the Superfund Amendments and Reauthorization Act of 1986, and the National Oil and Hazardous Substance Pollution Contingency Plan (NCP). The decision is based on the Administrative Record file for OU1 of the Site. The U. S. Environmental Protection Agency's (U.S. EPA) CERCLIS identification number for the Site is CO0002259588.

This document is issued by the U.S. EPA Region 8 (EPA), the lead agency, and the Colorado Department of Public Health and Environment (CDPHE). Both U.S. EPA and CDPHE concur on the Selected Remedy presented herein. The remedial action selected in this Record of Decision is necessary to protect public health or welfare and the environment from actual or threatened releases of hazardous substances at the Site.

Assessment of Site

The VB/I-70 Site was placed on the National Priorities List (NPL) in 1999 due to arsenic and lead contamination of soil. For the purposes of investigations and remedy development, the Site was divided into three OUs. This Record of Decision is for OU1, Off-Facility (Residential) Soils of the VB/I-70 Site. There are approximately 4,000 residential properties, 10 schools, and 7 parks within OU1. Most residences are single-family dwellings. There are some multi-family homes and apartment buildings. EPA determined that the VB/I-70 Site is an Environmental Justice (EJ) Site because the residents are predominantly low income and minority. It is also disproportionately affected by environmental impacts from many sources including industry, other Superfund sites, and major transportation corridors.

Operable Units 2 and 3 address On-Facility soil and groundwater at the Omaha & Grant Smelter and Argo Smelter sites, respectively. The structures associated with both of these smelters have been demolished and the sites have been redeveloped with commercial businesses.

Because residential properties within the VB/I-70 Site contained concentrations of arsenic or lead at levels that could present unacceptable health risks to residents with short-term exposures, in September 1998, EPA issued an Action Memorandum that established the basis for conducting a time critical removal action. The Action Memorandum required that soil be removed and replaced at any property where the average arsenic soil levels were greater than 450 ppm and/or lead soil levels were greater than 2000 ppm. These removal "action levels" were chosen to protect young children from adverse health effects related to short term (sub-chronic) exposure. To be conservative in meeting the action levels, a 5-point composite sample was collected from the front yard and a second 5-point composite sample was collected from the back yard of each property. Any property with one or more composite samples exceeding the action levels for either arsenic or lead was identified for soil removal.

EPA proposed the VB/I-70 Site for inclusion on the NPL in January 1999. EPA added the VB/I-70 Site to the NPL on July 22, 1999 (64 Fed. Reg. 39881, July 22, 1999).

The overall Remedial Action Objective (RAO) for OU1 of the Site is to protect human health. The following OU1 specific RAOs were developed for arsenic and lead in soil:

RAOs for Arsenic in Soil

1. For all residents of the VB/I-70 Site, prevent exposure to soil containing arsenic in levels predicted to result in an excess lifetime cancer risk associated with ingestion of soil which exceeds 1×10^{-4}, using reasonable maximum exposure assumptions.

2. For all residents of the VB/I-70 Site, prevent exposure to soil containing arsenic in levels predicted to result in a chronic or sub-chronic hazard quotient associated with ingestion of soil which exceeds 1, using reasonable maximum exposure assumptions.

3. For children with soil pica behavior who reside in the VB/I-70 Site, reduce the potential for exposures to arsenic in soil that result in acute effects.

RAO for Lead in Soil

4. Limit exposure to lead in soil such that no more than 5 percent of young children (72 months or younger) who live within the VB/I-70 Site are at risk for blood lead levels higher than 10 micrograms per deciliter (ug/dL) from such exposure. This provides 95% confidence that children exposed to lead in soil will be protected.

Description of Selected Remedy

Six alternatives were developed and evaluated to address the arsenic and lead contamination found at OU1 of the Site. Based on the Comparative Analysis of Alternatives, the remedy selected for OU1 of the VB/I-70 Site is Alternative 6. The selected remedy consists of 3 components: a community health program; soil removal; and sampling.

The Community Health Program consists of community and individual health education, a biomonitoring program to measure urinary arsenic levels and blood lead levels of children, and a response program that includes necessary follow-up environmental sampling, home investigation, and response. The program is composed of two separate, but overlapping, elements. The first element will address risks to area children from non-soil sources of lead. The second element will be designed to address children with soil pica behavior, to reduce their risks to arsenic in soil above 47 ppm, which is the preliminary action level determined in the Baseline Human Health Risk Assessment for children with soil pica behavior. Participation in one or both elements of the program will be strictly voluntary, and there will be no charge to eligible residents and property owners for any of the services offered by the Community Health Program. The Community Health Program will be implemented on an ongoing basis until the residential soil removal portion of this remedial action has been completed.

Soil removals will occur at properties that have lead or arsenic soil concentrations greater that 70 ppm arsenic or 400 ppm lead. The action level for lead is exceeded when the average lead concentration from three composite soil samples taken from the property is greater than 400 ppm. The action level for arsenic is exceeded when the highest arsenic concentration from three composite soil samples taken from the property is greater than 70 ppm. For properties where soil removal is conducted, all accessible soils will be removed to a depth of 12 inches. The excavation areas will be backfilled with clean soil, and pre-remediation yard features restored to the extent practicable, in consultation with the property owner. All excavated soils will be transported to an acceptable receiving facility, which may include the ASARCO Globe Plant. If the VB/I-70 soils are transported to the ASARCO Globe Plant, it will be used as capping and fill material in implementing the remedy at the Globe Plant Operable Unit. If the excavated soils cannot be placed on the ASARCO Globe Plant, then they will be transported to a local solid waste landfill where the soils may be used as daily cover material.

A program of on-going soil sampling will be implemented for lead and arsenic at all residential properties within the Site that have not already been adequately tested. This sampling program will continue through the completion of the soil removal portion of this remedy.

Statutory Determinations

The Selected Remedy meets the mandates of CERCLA § 121 and the National Contingency Plan. The remedy is protective of human health and the environment. It complies with all Federal and State requirements that are applicable or relevant and appropriate to the remedial action, is cost effective, and utilizes permanent solutions and alternative treatment technologies to the maximum extent practicable.

The remedy for OU1 of the VB/I-70 Site does not satisfy the statutory preference for treatment as a principal element of the remedy because the large volumes of soils contaminated with low levels of lead and arsenic can not be treated cost effectively, and treatment was not acceptable to the community.

If VB/I-70 soils are disposed of at the ASARCO Globe Plant, a 5-Year Review will be required. If the soils are disposed of off-Site, this remedy will not result in hazardous substances, pollutants, or contaminants remaining on-Site above levels that allow for unlimited use and unrestricted exposures, and a 5-Year Review will not be required.

1.11 Principal Threat Waste

The NCP states that, in general, "EPA expects to use treatment to address the principal threats posed by a site, whenever practicable." Principal threats for which treatment is most likely to be appropriate include liquids, areas contaminated with high concentrations of toxic compounds, and highly mobile materials" (40 CFR 300.430(a)(1)(iii)(A)). Contaminated soils at OU1 of the VB/I-70 Site are not considered contaminated with high concentrations of arsenic and lead, and these metals are relatively immobile in the environment. Therefore treatment of the OU1 soils is not expected by the NCP.

1.12 Selected Remedy

Based on the Comparative Analysis of Alternatives, the remedy selected for OU-1 of the VB/I-70 Site is Alternative 6. State and Community Acceptance were the overriding factors in selecting Alternative 6 as the remedy. The selected remedy consists of 3 components, a Community Health Program, soil removal, and sampling. A detailed description of each component of the remedy follows.

1.12.1 Community Health Program

The Community Health Program is composed of two separate, yet partially overlapping, elements. The first element will address risks to area children from non-soil sources of lead and from lead in soils above the action level of 400 ppm. The second element would be designed to address children with soil pica behavior to reduce their risks to arsenic in soil above 47 ppm, the preliminary action level determined in the Baseline Risk Assessment for children with soil pica behavior. Participation in one or both elements of the program would be strictly voluntary, and there would be no charge to eligible residents and property owners for any of the services offered by the Community Health Program. The Community Health Program will be implemented on an ongoing basis until the residential soil removal portion of this remedial action has been completed. Each of these two main elements of the program is described below.

Community Health Program - Lead Exposure Risk Reduction

The program for reduction of lead risks is intended to be general. That is, it is intended to assess risks from lead from any and all potential sources of exposure, with response actions tailored to address the different types of exposure source that may be identified. The lead program will consist of three main elements:

1. Community and individual education about potential pathways of exposure to lead, and the potential health consequences of excessive lead exposure.

2. A biomonitoring program by which any child (up to 72 months old) may be tested to evaluate actual exposure, and

3. A program that provides a response to any observed lead exposure that is outside the normal range. This response will include any necessary follow-up sampling, analysis, and investigation at a child's home to help identify the likely source of exposure. If the source of lead is found to be from residential soils, the property will receive a high priority for soil removal. If the main source is judged to be non-

soil related, responses may include education, counseling, and/or referral to environmental response programs offered by other agencies.

Community Health Program - Arsenic Exposure Reduction, Soil Pica Behavior

The Community Health Program for arsenic is designed to focus specifically on the potential risks to young children that exhibit soil pica behavior. Pica behavior is a rare behavior which children intentionally eat unusually large amounts of soil. The program for arsenic will consist of three main elements:

1. Community and individual education about identification and potential hazards of soil pica behavior and the potential health consequences of excessive acute oral exposure to arsenic.

2. A biomonitoring program by which any child may be tested to evaluate actual soil pica exposure to arsenic.

3. A program that provides a response to any observed inorganic arsenic exposures that are outside the normal range. This response will include any necessary follow-up sampling, analysis, and investigation at a child's home to help identify the likely source of exposure, and to implement an appropriate response that will help reduce the exposure. If the source of arsenic is found to be from residential soils, the property will receive a high priority for soil removal. If the main source is judged to be non-soil related, responses may include education, counseling, and/or referral to environmental response programs offered by other agencies.

1.12.2 Soil Removal

Soil removals will occur at properties that have lead or arsenic soil concentrations greater that the action levels. The action level for lead is exceeded when the average lead concentration from the three composite soil samples taken from the property is greater than 400 ppm. The action level for arsenic is exceeded when the highest arsenic concentration from the three composite soil samples taken from the property is greater than 70 ppm.

For properties which soil removal is conducted, all accessible soils will be removed to a depth of 12 inches. The excavation depth may be reduced in order to prevent damage to large trees or structures.

At the homeowner's request, flower beds and vegetable gardens may be sampled individually. If the concentrations of lead and arsenic in the flower beds or vegetable gardens are found to be below the action levels, then soil removal is not required in these areas. This is the only situation where a partial soil removal could occur at a property.

The excavation areas will be backfilled with clean soil containing arsenic and lead concentrations at or below action levels, and pre-remediation yard features restored. If sprinkler systems are present, the system will be removed and reinstalled. Based on Remedial Investigation data, it is estimated that soil removal would occur at a total of 853 residential properties within VB/I-70 OU1 (508 properties for arsenic only, 108 properties for both lead and arsenic, and 237 for lead only).

All excavated soils will be transported to a local solid waste landfill where they may be used as daily cover material. Alternatively, soils could be placed at the ASARCO Globe Plant Site to be used as cover and

The Final Cleanup Decision for Residential Soils in theVB/I-70 Superfund Site Denver, Colorado October 2003

Introduction

The United States Environmental Protection Agency (EPA) is proud to announce the final cleanup decision for the residential soils portion of the Vasquez Boulevard/Interstate 70 (VB/I-70) Superfund Site in northeast Denver. EPA has been working for more than four years with community representatives and local, state, and federal governmental agencies to investigate elevated levels of lead and arsenic in the soils of yards in the area. On September 25, 2003, EPA and the Colorado Department of Public Health and Environment (CDPHE) signed a Record of Decision(ROD). The Record of Decision is the formal document that describes the cleanup plan. The fact sheet your received discusses the details of the Record of Decision and answers many frequently asked questions about the cleanup.

The Community

VB/I-70 includes the Denver neighborhoods of Cole, Clayton, Swansea, Elyria, southwest Globeville, and a northern section of Curtis Park. According to the 2000 Census, includes approximately 2,400 children six years old or younger. EPA considers the VB/I-70 Superfund Site an Environmental Justice Site. This is because the neighborhood residents are predominately low-income and minority. It is also because the area has more sources of environmental pollution than are found together in most other parts of the city. These pollution sources include industry, other Superfund sites, and major transportation corridors. Community representatives like myself represent the affected neighborhoods. We representatives have worked together as part of CEASE and other groups to get this area declared a Superfund site and for it to be placed on the National Priorities List. This has led to a cleanup decision supported by the community as well as EPA and the other agencies involved.

The History of the VB-I70 Superfund Site

1990s --the state health department led found that some yards in the VB/I-70 neighborhoods had higher than normal levels of some toxic metals.
1998-- the EPA began investigating the nature and extent of metals contamination in VB/I-70 yards.

1998-2002 in collaboration with CDPHE, other governmental agencies, and community representatives, EPA tests showed that lead and arsenic could be found in some of the yards in the VB/I-70 area. EPA learned that some yards had such high levels of either lead or arsenic that removing and replacing the soil in those yards was important in protecting the owners or tenants health.

2003 EPA has already replaced soils at nearly 140 homes. These yards had some of the highest levels of lead and/or arsenic measured, and posed a health risk to residents there.

The Final Decision

The VB/I-70 Record of Decision (ROD) is a document that describes EPA's final cleanup decision for those yards with elevated levels of lead and/or arsenic in the VB/I-70 neighborhoods. The cleanup will consist of three parts: soil removal and replacement, a community health program, and on-going soil testing.

- ***Soil Removal:*** If soil tests show that the soil in your yard will be removed if there is more than **400 parts per million (ppm) of lead.** EPA will also remove and replace soil at yards where the highest arsenic concentration is above **70 ppm.** These soil removals are voluntary and will be completed at no cost to the homeowner. The EPA thinks that about 850 yards will need a soil removal and replacement. The work is expected to take three to five years to complete.
- ***Community Health Program:*** Some children in the VB/I-70 Superfund Site have levels of lead in their blood high enough to be a health concern. However, children may be exposed to many different sources of lead such as lead paint in their homes.. In addition, some children have a nutrition or medical problem called Soil Pica. Children who have Soil Pica eat dirt and then they end up with higher than normal arsenic and lead in their blood as well as bacteria and other harmful items.

  The Community Health Program is an outreach program that will provide residents with health information about lead exposure in general, Soil Pica behavior, and other environmental health topics. The Community Health Program will also provide testing for any child in the VB/I-70 area for exposure to lead and arsenic. If any child tests high for lead or arsenic, the Community Health Program will provide for environmental and health care professionals to respond to and help that child. The Community Health Program will be tailored individually to each neighborhood's particular needs. The Program will continue through the duration of the soil cleanup work.
- ***Soil Sampling:*** Since beginning the VB/I-70investigation, EPA tested yard soils at more than 3,000 of the 4,000 affected homes in the area. However, nearly 1,000 yards in the VB/I-70 area still have not been tested. Soil testing is free, but the EPA must have written permission from the owner in order to do the tests. EPA will keep trying to get permission to test and test the yards that haven't been tested yet.

Next Steps

The children in the VB-I70 area need to be tested for lead and arsenic and the families with young children need to be educated about the lead and arsenic in the area that could affect the children's and possibly adult health. We, the people who live in this area need to help develop a plan to do this. Sunny Walker is here to help us express and organize our ideas and the City and EPA are here to listen and help develop a plan that works for all concerned.

APPENDIX A-4

Community Meetings at Large

CORRESPONDENCE

December 15, 2003
December 15, 2003
January 12, 2004
June 7, 2004

Correspondence
VB I-70 Community Health Plan
Community Groups December 2003 – June 2004

Perez, Rocio - Environmental Health

From: Tafoya-Dominguez, Beverly - Environmental Health
Sent: Monday, May 10, 2004 2:19 PM
To: Perez, Rocio - Environmental Health
Subject: FW: Community Health Plan/EPA

From: DouglasKay@aol.com [mailto:DouglasKay@aol.com]
Sent: Monday, December 15, 2003 8:38 AM
To: beverly.tafoya-dominguez@ci.denver.co.us
Cc: lumumbaphd@yahoo.com; halbergweaver@qwest.net; Patricia_Lawless@dpsk12.org; stmartinplaza@qwest.net; sandera2@hotmail.com; stephlynnsanders@hotmail.com; whawthorne@nedenverhousing.org; DouglasKay@aol.com
Subject: Community Health Plan/EPA

Hi Beverly. I received your message on Friday. Our phone tag will definitely stop today. This responds to your question, "will the Cole Neighborhood Association work with CEASE in implementation of the Community Health Plan." Yes, we will and are currently working with CEASE, and, we support their efforts. We have two representatives at the CEASE table, Jim Weaver and Gloria Shearer.

Also CNA has a health plan, implemented through the Healthy Children Partnership. It is in partnership with Northeast Denver Housing through a Conoco grant. This summer, the Healthy Children Partnership was very successful in that it trained around 16 children, provided summer stipends for 16 children, taught the children about neighborhood issues, specifically those issues related to lead, arsenic and asthma triggers. Similar numbers are for Clayton. The children were also taught how to organize around neighborhood issues.

In your work with the Community Health Plan (EPA and the City of Denver), now in its early planning stage, please consider that both Cole and Clayton neighborhood associations are ready to partner, utilizing our existing Healthy Children Partnership.

I will call you later this afternoon.

Sandy Douglas

(Note: Steve, please make a copy for Gloria Shearer. Thanks)

Perez, Rocio - Environmental Health

From: Tafoya-Dominguez, Beverly - Environmental Health
Sent: Monday, May 10, 2004 2:22 PM
To: Perez, Rocio - Environmental Health
Subject: FW: Clayton Neighborhood Association's Healthy Children Partnership

-----Original Message-----
From: lumumbaphd@yahoo.com [mailto:lumumbaphd@yahoo.com]
Sent: Monday, December 15, 2003 11:32 AM
To: BEVERLY.TAFOYA-DOMINGUEZ@CI.DENVER.CO.US
Subject: Clayton Neighborhood Association's Healthy Children Partnership

December 15, 2003

Beverly Tafoya-Dominguez
Dear Beverly,

I hope this message finds you well. Thank you for your call. The community health plan topic is exciting, indeed! Specifically, how to increase resident participation in this very important health process.

Regarding your question about whether the neighborhood association would like to work with CEASE, we held our monthly meeting, on Saturday and this is our position regarding how to connect and engage our neighborhood in the work specific to the community health plan.

We propose that the Healthy Children Partnership is the vehicle that connects Clayton's residents to the Community Health Plan. We support a resident-driven, neighborhood-based approach to the health plan--an approach that recognizes the neighborhood association's role in the decision-making process.

Because the Clayton Neighborhood Association has actively supported CEASE, we will seek CEASE's active support of the Clayton Neighborhood Association's Healthy Children Partnership regarding how to increase resident participation in the Community Health Plan.

If you would like more information on our Healthy Children Partnership, I will provide it.
Have a great holiday season,

Beverly Lumumba
Clayton Neighborhood Association, President
3202 Madison Street
Denver, CO 80205
303-377-6629

cc-Clayton Neighborhood Association Membership

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Perez, Rocio - Environmental Health

From: Tafoya-Dominguez, Beverly - Environmental Health
Sent: Monday, May 10, 2004 2:20 PM
To: Perez, Rocio - Environmental Health
Subject: FW: FW: VB-I70 meeting on 1/12/2004

-----Original Message-----
From: lumumbaphd@yahoo.com [mailto:lumumbaphd@yahoo.com]
Sent: Monday, January 12, 2004 11:09 AM
To: Tafoya-Dominguez, Beverly - Environmental Health
Subject: RE: FW: VB-I70 meeting on 1/12/2004

Hi Beverly,
Thanks for your response. Regarding the Community Health Meeting, a combined Cole/Clayton meeting sounds great. Do you have an idea when this meeting will be scheduled?
Have a great Monday,
Beverly
--- "Tafoya-Dominguez, Beverly - Environmental Health"
<beverly.tafoya-dominguez@ci.denver.co.us> wrote:
> We would be very happy to have a meeting in Clayton.
> You were on my "to do"
> list for this morning to ask if you wanted us to come to your regulary
> scheduled meeting or the alliance meeting or a combined Cole/Clayton
> meeting. We are happy to come out in the evenings and should be able
> to manage a weekend date. Thanks, Beverly
>
> -----Original Message-----
> From: lumumbaphd@yahoo.com
> [mailto:lumumbaphd@yahoo.com]
> Sent: Friday, January 09, 2004 6:58 PM
> To: Tafoya-Dominguez, Beverly - Enviromental Health
> Subject: Re: FW: VB-I70 meeting on 1/12/2004
>
>
> Thank you, Beverly, for the information. For the next Community Health
> Meeting, please consider Clayton as the host site on a Saturday
> morning/afternoon or possibly a week day-- after 5 or 6 pm to increase
> resident participation.
>
> Wishing you well,
>
> Beverly
>
> Beverly Lumumba
> President
> Clayton Neighborhood Association
> 303-377-6629
> --- "Tafoya-Dominguez, Beverly - Enviromental Health"
> <beverly.tafoya-dominguez@ci.denver.co.us> wrote:
> > <<CHP planning - Meeting Minutes - 12-15
> BJTD.doc>>
> >
> >
> > > -----Original Message-----
> > > From: Tafoya-Dominguez, Beverly - Enviromental
> > Health
> > > Sent: Friday, January 09, 2004 2:42 PM
> > > To: Vanderloop, Celia - Environmental Health
> > > Subject: FW: VB-I70 meeting on 1/12/2004
> > >
> > >

Perez, Rocio - Environmental Health

From: Tafoya-Dominguez, Beverly - Environmental Health
Sent: Monday, June 07, 2004 3:16 PM
To: Vanderloop, Celia - Environmental Health; Hook, Gene C. - Environmental Health; Perez, Rocio - Environmental Health
Subject: FW: Beverly Lumumba and CHP

-----Original Message-----
From: lumumbaphd@yahoo.com [mailto:lumumbaphd@yahoo.com]
Sent: Monday, June 07, 2004 9:40 AM
To: Tafoya-Dominguez, Beverly - Environmental Health
Cc: douglaskay@aol.com
Subject: Re: CHP

Hi Beverly,

Thank you for sending me the draft Community Health Plan.
Throughout this process, Cole & Clayton youth have demonstrated their willingness and their ability to contribute to this very important process. We are quite pleased that the "voices" of neighborhood children will be heard and included in CHP.

The acknowledgement of HCP administrative responsibilities is appreciated as well. Regarding administrative costs, without the benefit of funds for the past year, HCP work has presented considerable challenges and sacrifices for both Sandy and me, as one can expect. However, HCP work was done and Cole & Clayton neighborhoods-- children & adults-- benefited and will continue to benefit.

Thank you for your support. I appreciate your hard work and your concern for my community.

HCP meets this week, and we will be in touch with you ASAP!

Have a great Monday!

Beverly Lumumba
303-377-6629

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APPENDIX B

CEASE & VB/I-70 CHP WORKING GROUP MEETINGS

TITLE **TAB**

CEASE & VB/I-70 CHP Working Group Meetings
AGENDAS, MINUTES, LIST OF ATTENDEES B-1
December 17, 2003 - Cross Community Coalition
January 12, 2004 - Cross Community Coalition
January 22, 2004 - Cross Community Coalition
February 12, 2004 - Cross Community Coalition
February 25, 2004 - St. Martin's Plaza
March 8, 2004 - Cross Community Coalition
March 25, 2004 - Cross Community Coalition
April 8, 2004 - Cross Community Coalition
April 22, 2004 - Cross Community Coalition
May 3, 2004 - Cross Community Coalition
May 6, 2004 - Cross Community Coalition
May 20, 2004 - Cross Community Coalition
June 3, 2004 - Cross Community Coalition

CEASE & VB/I-70 CHP Working Group Meetings
CONTACT LISTS B-2
VB I-70 Working Group and Cease Community Meeting Health Planning Meeting Contacts
VB I-70 Working Group and Cease Community Meeting Health Planning Meeting Quarterly Contacts

CEASE & VB/I-70 CHP Working Group Meetings
DRAFT CHEOP B-3
Community Health Education and Outreach Plan – Draft of May 19, 2004
Supportive Evaluation Guidelines – Evaluation Tool

CEASE & VB/I-70 CHP Working Group Meetings
MEETING HANDOUTS B-4
Arsenic in Soil
Lead in Soil
EPA Anuncia la Decisión Final de Limpieza para Suelos Residenciales en el Sitio de Superfondo VB/I-70
EPA Announcements the Final Cleanup Decision for Residential Soils in the VB/I-70 Superfund Site
Record of Decision

APPENDIX B-1

CEASE & VB/I-70 CHP Working Group Meetings
AGENDAS, MINUTES, LIST OF ATTENDEES

December 17, 2003 - Cross Community Coalition
January 12, 2004 - Cross Community Coalition
January 22, 2004 - Cross Community Coalition
February 12, 2004 - Cross Community Coalition
February 25, 2004 - St. Martin's Plaza
March 8, 2004 - Cross Community Coalition
March 25, 2004 - Cross Community Coalition
April 8, 2004 - Cross Community Coalition
April 22, 2004 - Cross Community Coalition
May 3, 2004 - Cross Community Coalition
May 6, 2004 - Cross Community Coalition
May 20, 2004 - Cross Community Coalition
June 3, 2004 - Cross Community Coalition

Corrected Meeting Minutes for the December 17, 2003
VB-I70 Community Health Planning Session
Cross Coalition Building-- Globeville Location

Present: Pat Courtney, Lorraine Granado, Joan Hooker, Victor Ketellaper, Michael Kosnett, Rocio Perez, Ellen Salvador, Gloria A. Shearer, Jennifer Slavick, Marilyn Starnes (Akwe), Beverly Tafoya-Dominguez, Anthony Thomas, and Celia VanDerLoop

The meeting convened and the meeting purpose was presented and discussed. Ground rules were discussed. The relevant portions of the Record of Decision (R.O.D.) describing the requirements for the Community Health Program were distributed.

Group members noted that the following objective elements were written in the R.O.D.

- The CHP would be in effect until soil removal is finished.
- The CHP would provide bio-monitoring.
- The CHP is intended to protect children from all lead hazards, not just hazards from lead in soil.
- One purpose of the program is to educate community members about the soil removal program.
- Another purpose is to educate community members, especially families with **young children**, about lead and arsenic hazards.
- Another purpose is to educating community members about pica behavior in children.

The following elements reflected the aspects the group members felt were most important about the CHP portion of the R.O.D.

- The program will address health risks for residents.
- The program will make resources available to conduct the community health program.
- It is important that there is a response to exposures.
- After many years of work, the community and agencies came up with something they can live with.
- There will be bio-monitoring to look for exposures.
- Environmental clean-up will be provided.
- There will be community involvement in developing and providing the community health plan.
- Participation in the program is voluntary and free of charge.
- Education will be provided for all families.

A discussion of the resources, programs, and actions that have been or can be utilized in the VB-I70 area to address lead and arsenic issues and community involvement took place. Elements discussed included:

- On-going soil removal
- Kids At Play Study and bio-monitoring conducted through that program
- Expertise and relationships of the working group
- Cross Community/CEASE involvement
- Assistance currently provided in contacting individuals for soil removal
- Healthy Children Partnership taking place in Clayton
- Activities and programs available through Northeast Denver Housing Center
- Neighborhood Newsletters
- Fact sheet mailed about CHP
- Environment group available to coordinate needs and implement work in Cole
- Healthy Children Partnership in Cole
- Elyria Swansea newsletter
- Elyria-Swansea block captains
- Community Involvement/participation

From the discussion the following themes were brought to the table

- Bio-monitoring should begin this Spring, in order to do that the agencies involved in conducting bio-monitoring will need to develop administrative protocols and fiscal arrangements as soon as possible and the community could have representation on this committee. The communities must be involved in deciding the where, when and how to do bio-monitoring in each community.
- There is a need for a Steering Committee to establish: administrative protocols such as: laboratory procedures; QA/QC measures; data and case management planning; and fiscal procedures for the bio-monitoring component. The steering committee will utilize agency staff expertise to develop the necessary administrative and fiscal protocols so that the bio-monitoring effort can take place in the Spring-Summer of 2004. Community involvement was addressed.
- There is a need to develop long term plans for results from bio-monitoring conducted through the CHP, and ensure that the bio-monitoring is conducted in such a fashion that data generated can be used to address these plans.
- There is a need for an evaluation plan, to evaluate the effectiveness of the CHP.
- The communities are to be involved in decision-making.
- CEASE has role in insuring that all communities are receiving accurate information regarding the remedy and lead/arsenic poisoning prevention
- Individual communities can develop/continue own information dissemination and education as long as information provided is accurate.
- It is important to get results of local studies, including the Globe Bio-monitoring Program and Kids At Play Study, for use in designing this bio-monitoring program.
- It would be useful to investigate how other communities developed successful CHPs.

Dr. Kosnett expressed concern regarding the statement that the CHP will last as long as the cleanup is in effect. The R.O.D. states that the CHP will be in effect for the duration of the soil cleanup, but he recalled Bonnie Lavelle indicating the CHP would extend longer, at least until ROAs were demonstrated to be met. Victor Ketallapper said that due to changes in the cleanup levels in the communities' favor he believed that the duration of the CHP was limited to the cleanup phase and that there would need to be a ROD change to extend the CHP beyond the duration of the soil removal. Dr. Kosnett and Lorraine Granado expressed concern that continued bio-monitoring and education is needed after soil remedy is complete, and that surveillance is important to demonstrate that the ROA is met by the remedy. It was suggested that the long-term evaluation of the RAO may be conducted through the efforts of other projects or agencies and that the CHP should include as a goal the establishment of an infrastructure that will allow continued bio-monitoring and education in the VB-I70 area. Dr. Kosnett also suggested that there is a need for statistical analysis to demonstrate if the combined soil cleanup and CHP did or didn't meet RAO. He suggested having a statistician or epidemiologist do a power analysis to establish how many children need to be screened to establish whether or not the RAO has been met and as apart of the evaluation planning.

The following action steps were agreed upon:

- DEH would establish the steering committee to address administrative issues and lay groundwork for bio-monitoring to commence in Spring of 2004. Communities will choose two residents to participate in the Steering Committee.
- Individual communities will decide on the where, when and how of bio-monitoring in their community.
- Individual communities will decide on the where, when, and how of health education in their community.
- EPA would get results from the Kids at Play Study in conjunction with ATSDR and present them to group.
- DEH would review literature about successful Community Health Plans and present information to group.
- Dr. Kosnett would consult on development of the evaluation plan and a method to bring Dr Lamphear to speak to work group members. Funding would be needed for this effort but where that funding would come from was not adequately addressed.
- DEH to plan a meeting with CEASE and other agencies who have participated in the Work Group previously or who may be able to assist in developing a framework for the CHP. The meeting is to be held on January 12, 2004 at 9:30 am at the Globeville Cross Community Coalition Office at 4400 Lincoln.

Attendees: Anthony Thomas, Beverly Tafoya-Dominguez, Celia Vanderloop, Ellen Salvador, Gloria A. Shearer, Jennifer Slavick, Joan Hooker, Lorraine Granado, Marilyn Starnes (Akwe), Michael Kosnett, Pat Courtney, Rocio Perez, and Victor Ketellapper

December 17, 2003
VB I-70 Community Health Plan
Working Group Meeting – Cross Community Coalition
4400 Lincoln St, Denver, CO 80216

CONTACT LISTS
for meeting of

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1. Arsenic in Soil

2. EPA Anuncia la Decisión Final de Limpieza para Suelos Residenciales en el Sitio de Superfondo VB/I-70

3. EPA Announcements the Final Cleanup Decision for Residential Soils in the VB/I-70 Superfund Site

4. Record of Decision

VB-I70 COMMUNITY HEALTH PLAN MEETING
Cross Community Coalition
January 12, 2004 at 9:30a.m.

AGENDA

I. **Approval of the minutes**

II. **Limitations and constraints to be followed in developing the CHP**

IV. **Presentation of research findings**
   a. Health education both local and other communities
   b. Bio-monitoring plans

III. **Development of a framework for the CHP utilizing Technology of Participation Consensus Workshop and Action Planning Methods***

V. **Next steps**

VII. **Other Business**

*These methods have been used world-wide in developing community action plans. They provide an excellent way to focus the wisdom and ideas of group members in developing and implementing meaningful programs. We respectfully invite attendees to participate in this session. If you have any questions about this process please call Beverly Tafoya-Dominguez at 720-865-5471.

Minutes of the VB/I70 Work Group and CEASE Meeting of 1/12/04

Attendees: Pat Courtney, Lorraine Granado, Victor Ketellaper, Michael Kosnett, Rocio Perez, Ellen Salvador, Gloria A. Shearer, Jennifer Slavick, Marilyn Stranes (Akwe), Beverly Tafoya-Dominguez, Anthony Thomas, Celia VanDerLoop, and Sunny Walker

Corrections/additions to previous minutes: Corrections were made to previous minutes

Action:

- EPA offered to check with their evaluation experts at Syracuse about the power analysis and evaluation planning. DEH will set up meeting with CDPHE, Dr. Kosnett, EPA, Dr. Ruttenber to discuss the evaluation plan and to help decide where/how the bio-monitoring should take place and if sufficient participation can be gained by community clinics to evaluate whether RAOs are met.

Limitations and constraints of the CHP were discussed by Celia VanDerLoop.

The goal of bio-monitoring will consist of a lead screening being made available to area children under the age of six and an arsenic screening being made available to children under the age of 18. The education component of the CHP will consist of education regarding lead and arsenic poisoning prevention.

Lorraine and Celia suggested that a door to door campaign may not be the best method of conducting screenings and others agreed that it would be good to delay planning of the bio-monitoring until the results of the Kids at Play Study (KAPS) had been presented. The suggested goal of the group was that each child under age 18 would be offered bio-monitoring at least once during the cleanup phase.
Dr. Kosnett suggested that, if applicable, the results of the KAPS be used as the basis for the evaluation plan. He also suggested that areas/populations identified as being at high risk through the KAPS be targeted for special intervention and/or to determine if there is measurable improvement as part of the evaluation plan.
Actions: Victor Ketallapper will continue to work with ATSDR to obtain the results of the KAPS. Dr. Kosnett to participate in the bio-monitoring planning committee.

Goals for educational component:

- Every area resident will be educated about living as part of the entire eco-system.
- Residences identified as being contaminated under the ROD guidelines will be remediated.
- Provide information about lead and arsenic to every home at least once during the duration of the project
- Every resident will have the opportunity to participate in at least one informational community meeting per year during the duration of the project.

Meetings would be evaluated - when they came, was the info good, were the meetings good.

- Identify resources available to address indoor LBP and provide that information to all the residences participating in the soil cleanup.
- Risk behaviors will be identified, addressed and evaluated as part of CHP or other agency efforts.
- Residences will be sent a letter yearly or when occupancy changes informing occupants about their home being located in a superfund site and the need for bio-monitoring of children. In other words, we're monitoring turnover in homes, we're providing additional outreach, education, testing for homes that turn over.
- There will be community members trained to be permanent educational resource
- Every household will have received a survey asking what's effective, what's not.
- We need to review what exists before we develop something new. Some community health education methods were briefly discussed. The promotora or community health worker method of community health education was seen as a potential method that would be beneficial to the community.

Action: - DEH will collect and distribute an informational packet including information about health education methods used locally and in other areas in order to help communities decide how they would like to educate their members. CEASE wants to be very involved in developing materials. Materials that were developed through ATSDR were very good - Simple, direct, clear.

Attendees: Anthony Thomas, Beverly Tafoya-Dominguez, Celia Vanderloop, Chris Poulet, Ellen Salvador, Gloria A. Shearer, Lorraine Granado, Marilyn Starnes (Akwe), Michael Kosnett, Pat Courtney, Rocio Perez, Sunny Walker, and Victor Ketellapper

Janurary 12, 2004
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Working Group Meeting – Cross Community Coalition
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Compilation of Results of CEASE Meeting on December 17, 2003

Objective	Reflective	Interpretive	Decisional	Action Steps
CHP in effect until soil removal is finished. Bio-monitoring Protect children from all lead hazards Educating community members about the soil removal program Educate community members, especially families with **young children**, about lead and arsenic Educating community members about Pica	Address health risks Resources available for community health program Includes a community health program Respond to exposures After many years of work came up with something they can live with Bio-monitoring piece Environmental Clean-up Community Involvement Participation is voluntary and free of charge Remediation Education Piece Education for all families	**All communities/agencies** Soil Removal Kids At Play Study Bio-monitoring Working group **Cross Community/CEASE** Soil removal contacting individuals Community Involvement/participation **Clayton** Healthy Children Partnership (NDHC) Newsletter Fact sheet mailed about CHP **Cole:** Environment group available to coordinate needs and implement work Healthy Children Partnership **Elyria-Swansea:** Elyria Swansea newsletter Elyria-Swansea block captains	**Decision Points:** Approval for a Bio-monitoring Steering Committee to establish: laboratory procedures; QA/QC measures; data and case management planning; fiscal procedures. Long term plans for results from bio-monitoring CHP Evaluation Plan Communities to be involved in decision making CEASE has role in coordinating information to insure that all communities are receiving accurate information regarding the remedy and lead/arsenic poisoning prevention Individual communities can develop/continue own information dissemination and education as long as information provided is accurate. (See above.) Get results of local studies: Globe Bio-monitoring Program and Kids At Play Study How have other communities developed successful CHPs	Bio-monitoring steering committee to address administrative issues and lay groundwork for bio-monitoring to commence in Spr. 2004. Communities will choose two residents to participate in the Steering Committee Individual communities will decide on the where, when and how of bio-monitoring in their community. EPA to get results from the Kids at Play Study in conjunction with ATSDR and present them to group. DEH to review literature about successful Community Health Plans and present information to group. Dr. Kosnet to consult on development of the evaluation plan and find a way to bring Dr Lamphear on a volunteer basis or find funders to speak to work group members DEH to plan a meeting with CEASE and other agencies who have participated in the Work Group previously or who may be able to assist in developing a framework for the CHP on January 12, 2004 at 9:30 am at the Globeville Cross Community Coalition Office 4400 Lincoln .

Additional Non-DEH Materials

This document was distributed at this meeting by a non DEH member of the VB I-70 Working Group/CEASE CHP Planning Group.

YEAR 2000 COMMUNITY SUMMARY

YEAR 2000 PROGRAM TEST RESULTS

The Globeville Medical Monitoring Program activities in the year 2000 were targeted to medical testing in the area south of I-70. Testing included blood, urine, and hair testing for lead, cadmium, and arsenic. A total of 239 individuals participated. This total was composed of the following:

- Baseline 146
- Voluntary Population 54
- Elective Population 39

In addition to those participants, 10 individuals returned for remediation testing to determine their metals levels after their property was cleaned up.

The 239 participants consisted of 105 males and 134 females, 165 adults, 73 children, and one (1) person who did not provide an age or date of birth.

In addition to the medical monitoring tests performed, there were 34 individuals who had a consultation with the program physician during 2000.

2000 Baseline Population Test Results

This target population is defined as those individuals residing in the geographic area (also known as the south Globeville "footprint" area) with boundaries as follows: I-70 to the north; Washington and 38th Avenue to the east; 43rd Avenue to the south; and 1-25 to the west.

- The 2000 baseline population consisted of 146 persons.

- Blood testing was performed for 123 individuals. No elevations of blood lead were noted, while three persons were identified with blood cadmium elevations above the action level of 2 µg/l. Two of these individuals were adults who smoked. One of these three individuals was 10 years old at the time of the baseline testing and the sample was clotted at the time of testing. A repeat sample did not detect any cadmium in the child's blood.

- Urine testing for arsenic, cadmium, and beta-2 microglobulin was completed for 110 individuals. No elevations of urine arsenic were detected. Eight persons had a urine cadmium elevation (above 2 µg/l) and nine persons had an elevation of urine beta-2 (above 300 µg/g).

- 144 persons had hair arsenic levels measured, with 19 persons having levels above the program action level of 0.1 µg/g.

2000 Voluntary Population Test Results

This population group is defined as individuals who are current or former workers in the Globeville area, former Globeville residents, or frequent visitors to the footprint area who have specific health concerns related to exposure from the Globe Plant.

- The 2000 voluntary population consisted of 54 persons.
- Forty-seven voluntary participants had blood tests, with no blood lead elevations and 2 blood cadmium elevations. One individual was a smoker and one was not.
- *Forty people had urine tests for cadmium, arsenic, and beta-2 microglobulin. One person had* an elevated urine arsenic level on initial sampling, which was not confirmed on subsequent testing two months later. No one in the voluntary populations experienced an elevation in urine cadmium.
- Eight of the 52 persons from the voluntary population with hair testing performed had an elevation of hair arsenic.

2000 Elective Population Test Results

Those persons living in the footprint area who initially enrolled in the program after soil remediation began in May 2000 are referred to as Elective participants.

- The 2000 elective population consisted of 39 persons.
- Thirty-six of these had blood tests for lead and cadmium. Of these, none had elevations of blood lead and one person who smoked had an elevation of blood cadmium.
- Twenty-seven persons from the elective population had urine testing for arsenic, cadmium, and beta-2 microglobulin. Only one urine test elevation was noted, which was for urine cadmium.
- All participants from the elective population had arsenic hair testing performed and 10 persons had at least one elevation.

2000 Remediation Test Results

This population group is a subset of the South of I-70 Baseline Population and includes those individuals in the footprint area who were initially tested prior to the start-up of soil remediation activities and who returned for a retest during soil remediation activates at their residence.

- The remediation population consisted of 10 persons.

- Ten out of the 62 persons eligible have had both a baseline and a remediation test. Of those, three persons had an elevation of hair arsenic and one person had an elevation of blood cadmium on remediation testing.

CONCLUSIONS

The following are the conclusions for the year 2000 program test results:

- Baseline testing was completed for 146 residents living in the South Globe target area. For most of those tested, results were within expected levels.

- None of the residents tested from South Globe had an elevation of **blood lead**.

- The number of **blood cadmium** elevations was small and elevations were all detected in current smokers with one exception.

- None of the individuals tested who currently reside in the target area had a **urine arsenic** test above the program action level of 20 µg/g, indicating that no recent exposure to arsenic was occurring at a level of concern. Recent dietary exposure to fish or other seafood was the most important source identified for the presence of higher levels (13 µg/g or higher) of arsenic in urine for adults. Arsenic levels above 13 µg/g were not associated with smoking status, having recently worked in the yard, or living in a home with high soil arsenic levels. For children, higher levels of arsenic in their urine were not associated with recent consumption of fish or seafood. For some children, higher urine arsenic concentrations (above 13 µg/l) may be associated with hand to mouth activities in yards where arsenic soil concentrations were higher than typical background levels in soil. Further investigation was recommended to determine whether exposure was occurring.

- 11 children under the age of 15 years old had a **hair arsenic** test above the program action level of 0.1 µg/g. Seven of these children lived in a home with elevated soil arsenic concentrations. Further investigation of arsenic exposure in the home was recommended for several individuals with repeated elevated test results. One adult had a hair arsenic result above a level that has been associated with increased risk of adverse health effects due to arsenic toxicity (i.e., above a level of 1.0 µg/g). Further study was recommended to try to determine the source of this person's exposure.

- 10 of the 62 individuals who were eligible returned for a second round of testing after their property was cleaned up. One individual had a slightly elevated blood cadmium level, most likely due to being a smoker. Three individuals had an elevated hair arsenic level, one of which was not confirmed with a later retest. Further investigation was recommended for two individuals with elevated hair arsenic tests from the same household.

VB-I70 COMMUNITY HEALTH PLAN
MEETING
January 22, 2004

AGENDA

I. Approval of the minutes

II. Presentation of research findings

- Health education in both local and other communities

III. Brainstorming about what has been effective in the VB-I70 area

IV. Next steps

- The results of the Kids at Play Study will be presented at the February 12, 2004 meeting.

Minutes of the VB/I70 Work Group and CEASE
Meeting 1/22/04

Attendees: Pat Courtney, Lorraine Granado, Victor Ketellaper, Rocio Perez, Ellen Salvador, Gloria A. Shearer, Marilyn Starnes (Akwe), Beverly Tafoya-Dominguez, Anthony Thomas, Celia VanDerLoop, Jim Weaver and Sunny Walker Dr. Michael Kosnett sent his regrets.

Corrections/additions to previous minutes: Minutes were approved

Beverly Tafoya-Dominguez presented information about outreach and educational approaches used by local and distant community. Packets were distributed to the participants. A brief discussion about the objectives for outreach programs and for educational programs was held. Many elements are the same for both outreach and education projects. Outreach and education settings include institutional, medical or street settings. Outreach and education methods include one to one discussion, group discussions, community level meetings, and the use of mass media. Some of the techniques used in the past in the VB-I70 area have been door-to-door campaigning, letters, flyers, speakers, ads, newsletters, press conferences, health fairs, radio and television programs and community meetings. Other approaches have included plays, dramas, schools presentations, and poster contests. Educational objectives discussed included changing attitudes, knowledge and behavior.

One of the education initiatives proposed was to educate the community about the area being a superfund site and the remediation work being done. The objective is that every household will be contacted about the current status of the superfund site and the site remediation. Techniques discussed included mailings (seen as least effective), door-to-door) education, a promotora (community health education worker) program, presentations at schools to studn4ets and parents. Paying promotoras to do door to door contacts and community and group presentations was discussed as a viable option. Anthony Thomas brought up the point that the initial work done to get the VB-I70 area declared a superfund site was very successful and many of the techniques used then should be included in the CHP.

The group also felt that presenting a unified message was important so that all communities were given the same information. The materials from the Kids at Play study were discussed as being clear, concise and simple enough to get across the needed information.

Action: Beverly Tafoya-Dominguez to get copies of the materials for review by the group.

In terms of getting an outreach/education campaign going by the summer of 2004, the group felt that members of the community should be trained to conduct outreach and

education and the communities could determine which methods and settings to use. The community workers would have to be working by this summer and on-going communication between the workers would need to be included in the job descriptions so as to evaluate the progress of their efforts and make changes as needed to become more effective. Some of the settings discussed included going to every home in the area, schools, recreation centers and churches. Plays, health fairs and written materials could be developed so that a unified message would be presented, but communities could have a choice of methods. Ideas for outreach and education included having a slogan or specific message, having contests like a poster contest, recruiting some families to be the innovators in the community and help the rest of the community to gain the desired attitude, knowledge and/or behaviors decided upon. The model families would exhibit a "We did it so can you" attitude and serve as resources to the community. Still others suggested that Head Start Centers and family childcare centers would be good settings for outreach and education. Incentives for children could be stickers, decorative soaps etc. A catch me doing something right campaign was discussed.

Jim Weaver emphasized that need for evaluation of the program in terms of measuring awareness, attitude, knowledge and behaviors.

Celia VanDerLoop presented information from the bio-monitoring steering committee. Community testing seems more preferable that door-to-door testing. She stated that the bio-monitoring committee would make recommendations regarding what methods will be used to obtain samples i.e. finger-stick versus veni-puncture for lead and using hair or urine to determine arsenic levels. After the committee comes to a consensus, they would make recommendations for community acceptance. The group members accepted this approach. Anthony Thomas told the group that the black people would have a problem giving hair samples for analysis.

Meetings will be scheduled for the 2nd and 4th Thursday of each month. The full group may not be required to participate in both meetings, but the time can be used for sub-committee meetings and other activities required.

Attendees: Anthony Thomas, Beverly Tafoya-Dominguez, Celia Vanderloop, Ellen Salvador, Gloria A. Shearer, Jim Weaver, Lorraine Granado, Marilyn Starnes (Akwe), Michael Maes, Pat Courtney, Rocio Perez, Sunny Walker, and Victor Ketellapper

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VB-I70 COMMUNITY HEALTH PLAN MEETING
February 12, 2004

AGENDA

I. Approval of the minutes

II. Kids At Play Study presentation

III. Old Business

IV. Next steps

Minutes Vasquez Boulevard/I-70 and CEASE Workgroup
Community Health Outreach Planning
February 12, 2004

The meeting focused on a presentation by Margaret Schonbeck, CDPHE, regarding the preliminary results of the Kids At Play Health Study (KAPH), conducted in the summer and fall of 2002.

Celia Vanderloop emphasized that the results summarized in these minutes are not an official summary and that the results presented are preliminary in nature. She suggested that the preliminary Kids At Play Study results suggested that the RAQs have already been met, so the bio-monitoring portion of the CHP being discussed currently will be a surveillance program and the CEASE-VB/I-7 work group provide oversight of the CHP planning and outreach.

Prior to this presentation, there was a brief discussion of the purpose of the biomonitoring to be conducted as a part of the Community Health Plan. Celia VanDerLoop stated that the current understanding from the steering committee was that the purpose of the biomonitoring is to provide a community service during the remedy implementation. She stated that the steering committee understood that further discussion was needed of the issue, and invited attendees to attend the next steering committee meeting. Dr. Kosnett stated that he understood the ultimate purpose of the data are to see whether RAOs are met. There also was a brief discussion regarding use of the data: can the data be shared. In general, it was stated that if the biomonitoring was done as a private medical service, there are limits on data. If the biomonitoring is a surveillance program, there will be a need to address special requests and confidentiality issues, but still can share data. We agreed to work to decide the purpose of the study as soon as possible.

The remainder of the meeting was taken up by Margaret Schonbeck's presentation, summarized briefly below. Please note that these minutes are a brief summary from notes taken at the meeting. As Ms. Schonbeck was providing preliminary results, any facts or conclusions below are preliminary in nature. They are not intended to represent all of the information Ms. Schonbeck presented. They may not be completely accurate. The study report should be relied upon for accurate information.

The field work for the KAPH study was conducted in 2002. The study currently is in peer review. Peer review should be done in 2 months or so. The final document may not be available for 3months or so.

During the study, KAPH had 16-20 field staff going throughout the neighborhoods. The field staff contacted approximately 4900 homes, and received responses from over 4000. The difference is made up of homes where families weren't eligible because no children or older children.

Ms. Schonbeck gave a brief overview of the purpose of study:

- Recommendation of ATSDR's PHA was to conduct soil exposure investigation

- Provide further information on what is pica behavior
- Why is pica behavior a concern at VB/I70
- Provide information on exposure to arsenic and lead contamination
- Provide a mechanism for quantifying ingestion pathway

The study design consisted of:

- GIS mapping of study area
- Door to door census - June - October
- Census identified homes with pre-school aged children
- Used block teams with bilingual interviewers

The study also evaluated a little over 400 children that people were concerned about that didn't really fit into study. Most of these children were older than the targeted population.

The health investigation consisted of a soil exposure questionnaire. The questionnaire asked questions regarding: soil contact and soil ingestion; frequency of hand and face washing; play areas with exposed dirt; eating or drinking while playing outdoors; have you ever observed your child eating dirt?

Through this questionnaire, the study was able to identify all play areas - not just at residence. The investigators feel they have a strong analytic data set - felt that captured all the sources for about 1000 kids. They also have another data set that captured data for just residences.

Other study components were the arsenic symptoms survey, urine arsenic testing, blood lead testing, and delivery of educational materials. For arsenic, the initial test was used to screen if the subject was included in the elevated on arsenic group. Initially, the study didn't determine whether the arsenic was organic or inorganic – this manner accounted for every possible exposure. If the sample was over30, went back and looked at inorganic/organic.

Health education was conducted in Spanish & English, and addressed play habits and dust exposure.

Home visits were conducted for children with elevated urinary arsenics or blood leads. The in-home investigations were conducted by UCHSC, EPA, and Denver Environmental Health.

Mishelle trained field staff on lead testing. The field staff brought a blood-lead kit into the home. Showed the parents using a demo-doll how to take a urine sampling. All testing was done in home, except for confirmatory. Confirmatory test - used local clinics

Numerous contacts were made in order to gain participation. Initial contacts were door-to-door visits to put a flyer on the door. Field staff also called and asked for participation; if possible, the call was used to set up an appointment. When the calls didn't make contact, went to doors. Field office was used to have a presence in the community. The field office had staff, everyone had cell phones. Sometimes had to make 3-4 attempts to get confirmatory sampling done. Piloted small group - trained staff, started in June. Always had female accompanying men so didn't send men alone to homes. Field staff had backpack - biohazard container, place to keep samples cool; notebook with organized information, hand out information.

Questions, responses, and preliminary conclusions:

- Residency was about 2 years on average.
- Did not ask if child had lived in Mexico, yet did ask if had been in Mexico recently.
- Dirt eating behavior - any kind of dirt - did you ever see your child eating dirt - yes - 21%, no 79%.
- The days since last eating dirt- the majority were in the last 3 week period prior to questionnaire administration
- Less than 5% of blood test results are greater than 10
- Report recommends that we do on-going blood lead monitoring
- No difference in % of children between 5-10 ug/dl
- Had no elevated arsenic levels, except 1, preliminarily that 1 is dietary
- Urine arsenic and blood lead are not coming from the same source.
- Had subgroup of arsenic testing where did 60 hair and urine - included all of the children that had somewhat elevated results on originals, controls, did 20,20,20.
- Didn't have anyone refuse hair sampling - these were a subset of people that already had given samples.
- Blood lead concentrations similar to those reported in other urban areas with houses painted with lead-based paint.
- Blood lead levels did not correlate with the subgroup that had eaten dirt
- Soil contact has not resulted in unusually high arsenic exposures.
- Preliminarily, nothing correlated with lead levels
- 85% participation - toys as incentives, community involvement, many repeated calls
- Hygiene/face-washing is most important in terms of behavior change.

Attendees: Anthony Thomas, Barbara O'Grady, Beverly Tafoya-Dominguez, Celia Vanderloop, Chris Poulet, Derek Boer, Ellen Salvador, Gene Hook, Gloria A. Shearer, Kenneth Cotton, Lloyda Martinez, Lorraine Granado, Marilyn Starnes (Akwe), Michael Kosnett, Michelle Macias, Pat Courtney, Rocio Perez, Stephanie Foster, and Sunny Walker

February 12, 2004
VB I-70 Community Health Plan
Working Group Meeting – Cross Community Coalition
4400 Lincoln St, Denver, CO 80216

CONTACT LISTS
for meeting of

February 12, 2004
VB I-70 Community Health Plan
Working Group Meeting – Cross Community Coalition
4400 Lincoln St, Denver, CO 80216

See Appendix B-2 for Copies of Contact Lists

1. VB I-70 Working Group and Cease Community Meeting Health Planning Meeting Contacts

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for meeting of

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4400 Lincoln St, Denver, CO 80216

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1. Arsenic in Soil

2. EPA Anuncia la Decisión Final de Limpieza para Suelos Residenciales en el Sitio de Superfondo VB/I-70

3. EPA Announcements the Final Cleanup Decision for Residential Soils in the VB/I-70 Superfund Site

4. Record of Decision

VB-170 CEASE Meeting

2/25/2004
9:00 AM

Agenda

Approval of Minutes

Steering Committee Report

What has worked in VB-I70 in the past?

Next Steps

Additional Information

Minutes of the VB/I70 Work Group and CEASE meeting 2/25/04

Attendees: Pat Courtney, Victor Ketellaper, Rocio Perez, Ellen Salvador, Gloria A. Shearer, Beverly Tafoya-Dominguez, Anthony Thomas, Celia VanDerLoop, Jim Weaver and Sunny Walker

Corrections/additions to previous minutes: Correction were made to previous minutes

The bio-monitoring steering committee will address quality control issues, technical details of sample collection like using the finger-stick method of blood letting for blood lead tests. They will also address medical management for cases of elevated blood or arsenic levels.

Ellen Salvador and Anthony Thomas reminded the group of the previous discussion about the duration of the project. Victor Ketallaper discussed how the objectives for a long-term CHP were changed secondary to stricter standards for the soil clean up. Victor reiterated that part of the current community health plan's function is to develop an infrastructure to address the lead and arsenic issues in the area in the future after the EPA funding for the CHP is no longer available.

One person commented about the need for an environmental investigation for every child found to be elevated. A discussion took place about the need for further outreach to the Latino community. Gloria Shearer and Jim Weaver commented on the importance of having Spanish speaking, culturally sensitive medical providers and the need for more participation by the Hispanic community at the community meetings being planned to discuss the CHP. Jim suggested that daytime meetings might be easier for Latina women to attend. He also suggested holding meetings in a place where children are welcome and that on-site childcare might be a factor in increasing attendance. Local schools, churches and the St Charles and Swansea Recreation Centers were suggested as local venues. Harrington and Bruce Randolph schools were suggested as a possible meeting spot. Pat Courtney commented that one must rent the rooms at the schools and arrange for meetings about one month in advance. Annunciation Church, New Hope Baptist Church were suggested by Anthony Thomas.

Since parents of young children will be one of the primary target audiences for the CHP it was suggested that Head Start parents be recruited to community planning meetings. The Swansea and Globe Head Start programs had volunteered to host a meeting, but asked that it be held the second Monday in March. The group approved of this effort.

Action: Beverly to contact local Head Start centers with home visitation programs to see if a daytime meeting with the Latina community could be arranged. Anthony Thomas suggested Clayton Head Start because they have a home visitation program.

Community Meetings will be held on March 8th at the Swansea and Globe Head Start on 51st and Lincoln at 5:30 pm; on March 11th at the Hope Center on 3400 Elizabeth at 6:00. Beverly Tafoya-Dominguez relayed a request for a VB/I-70 briefing to be held for the Clayton Neighborhood Association members on March 6, 2004 at St Luke's CME church at 10:30Jim Weaver suggested that a briefing be held for Cole residents during their Cole Neighborhood Organizing Alliance meeting and requested that the CHP planning group take into consideration how the CHP fits into the on-going change process in Cole. . He said that a half hour would be available at the next meeting to provide a briefing and get some participatory feedback. The community members could decide if they would like to have another meeting devoted to the CHP.

It was decided that promotoras (lay community health educators) and school presentations would be suggested as possible educational avenues to the community. If the community wishes to utilize these methods there will be a need for volunteers to recruit coordinate and train community members to conduct education and outreach and to select and modify materials. It was suggested that to publicize the upcoming community meetings that notices be sent that have all the currently planned meetings listed on them. The meetings are to take place on March 6th in Clayton, March 8th for and education methods include one to one discussions, group discussions, community level meetings, and the use of mass media.

Celia VanDerLoop provided a very rough outline of the VB-CHP program planning phase for comments. She stated that she used EPA information, wording from the Record of Decision and community input to develop the outline. The CHP is to provide community service and protection of the remedy during the clean up phase in lieu of a research study. Jim Weaver suggested changing the goal to reflect the previous conclusions of developing an infrastructure that will support an ongoing CHP. Victor Ketallaper responded that since the contaminant (lead) has multiple sources he sees the initial three year CHP as a means to increase capacity in the area so that educational efforts can be continued. Although Anthony Thomas research into the VB/I-70 notes kept by CEASE members show that at one time a 10 year CHP was discussed, Victor clarified that the initial CHP would be funded for the duration of the soil clean up. Jim Weaver suggested that the Cole community briefing should include dialogue about how a CHP can limit the effects of lead.

The suggestion of the VB/I-70 residents was to develop the infrastructure that will allow the CHP efforts to continue even when the initial EPA funding is no longer available. The objectives provided in the outline need to be defined more clearly. She described each bullet as being a placeholder for further input. The community involvement process was touched upon as well as a need to discuss the strengths and weaknesses of the existing communities and efforts provided thus far. Environmental justice is an area that needs further refinement.

There needs to be a discussion of what has worked or not worked in other communities outside of Denver. Each component of the plan must address who, what, where, when and how of outreach and education. Materials must be evaluated for strengths and weaknesses and chosen/modified. Reporting mechanisms must be developed and process evaluations must occur to provide for problem solving during the intervention phase. An annual report summarizing the data and evaluation conducted to date must be provided.

Celia noted that the Kids At Play Study's strengths included a large number of contacts and a large degree of community saturation. She would like to determine if the CHP can build on the KAP strategies. One idea in particular she mentioned was developing a training manual for the community workers.

Attendees: Anthony Thomas, Beverly Tafoya-Dominguez, Celia Vanderloop, Derek Boer, Ellen Salvador, Gloria A. Shearer, Jim Weaver, Kenneth Cotton, Pat Courtney, Rocio Perez, Sunny Walker, and Victor Ketellapper

February 25, 2004
VB I-70 Community Health Plan
Working Group Meeting – Cross Community Coalition
1300 Bruce Randolph St, Denver, CO 80205

CONTACT LISTS
for meeting of

February 25, 2004
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Working Group Meeting – Cross Community Coalition
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for meeting of

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4. Record of Decision

Vasquez Boulevard/I-70 Superfund Site
Community Health Education and Outreach Plan
Rough Draft - February 24, 2004

Outline:

A. *Executive Summary*

B. *Background on Site*

C. *Overall Program Goal*

1. Statements and expectation of ROD
2. Goal of CHP
3. Benefits of CHP

D. *Need for Community Health Education and Outreach Program (CHEOP)*

1. Goal for CHEOP
2. Benefits of CHEOP
3. Expected Outcomes for CHEOP

E. *Process for Development of CHEOP*

1. Community Involvement
2. Existing Community Strengths and Weaknesses
3. Environmental Justice Concerns
4. What's worked in other communities
5. Timeframe

F. *Components of CHEOP*

1. Outreach methods
2. Materials for use during education and outreach
3. Distribution plans for education and outreach
4. Evaluation mechanisms
5. Reporting mechanisms
6. Schedule
7. On-going communication, feedback, and revision of above

Executive Summary

Summary of Plan, written after rest is complete

Background on Site

Insert from EPA fact sheets

Overall Program Goals

Statements and expectation of ROD

Insert narrative and statements from ROD

During meetings held in the community, community members found the following requirements stood out in describing the community health program. These factors were the most important components of the CHP, to the participating community. **Need to add to this from results of subsequent community meetings.**

- CHP would be in effect until soil removal is finished.
- The CHP would provide bio-monitoring.
- The CHP is intended to protect children from all lead hazards, not just hazards from lead in soil.
- One purpose of the program is to educate community members about the soil removal program.
- Another purpose is to educate community members, especially families with young children, about lead and arsenic hazards.
- Another purpose is to educating community members about pica behavior in children.

The group believed these facts address and will provide important benefits to the community. .:

- The program will address health risks for residents.
- The program will make resources available to conduct the community health program.
- It is important that there is a response to exposures.
- After many years of work, the community and agencies came up with something they can live with.
- There will be bio-monitoring to look for exposures.
- Environmental clean-up will be provided.
- There will be community involvement in developing and providing the community health plan.
- Participation in the program is voluntary and free of charge.
- Education will be provided for all families.

In order to provide a useful CHP that provides benefit to the community, it is important that the above facts and benefits be honored in the planning and implementation of the CHP.

Goal of CHP

The overall Program Goal of the VB/I-70 Community Health Plan is to develop, implement, and manage a community health program with residents in the VB/I-70 (VB) site to reduce resident's exposure to arsenic and lead in soil during the period of soil remediation, to reduce children's

exposure to contaminants in soil from soil pica behavior, and to reduce children's exposure to lead from sources other than soil. The CHP will include the following components at a minimum:

- Community outreach and education
- Bio-monitoring
- case management for children identified with elevated levels of arsenic or lead, including environmental investigations
- medical management of elevated cases
- interagency coordination of response activities;
- program management and administration;
- data management and reporting.

Benefits of CHP

The community health program can provide numerous benefits to this community that include the following.

- Help prevent exposures before they occur, through education and outreach activities.
- Involve the community in prevention, education, and outreach to utilize community strengths and partnerships and reach community members not normally reached through standard methods.
- Minimize potential exposures to site chemicals of concern (COCs) during the timeframe in which the site remedy is being implemented, but is not yet complete.
- Reduce children's exposure to sources other than soil. Especially for lead, it is well documented that there are multiple potential sources of exposure, including deteriorated lead-based paint, the predominant source of exposure for most children.
- Ensure that community members are appropriately tested (biomonitored) for exposure to the contaminants of concern.
- Ensure that community members with elevated levels of exposure are provided with appropriate follow-up investigation, referral, and mitigation.
- Ensure that the community becomes an integral component of ensuring that a protective remedy is implemented.
- Identify and provide interventions for children exhibiting pica behavior. Typically, pica children require additional interventions than provided by a simple soil removal program. This is because they are at risk for health effects from contaminants such as lead in soil, even at urban background levels.
- Verification of remedy effectiveness. It is important to collect data on remedy effectiveness to ensure that a protective remedy has been selected. Data can be evaluated periodically to address community concerns regarding the protectiveness of the remedy.

Expected Outcomes for CHEOP

Need to flesh out based on continuing meetings, need to add narrative describing each one.

- Establish infrastructure that allows continued efforts in the community.
- Contacts/information delivered to every door.
- Every household contacted at least once per year over 3 year period.
- Every child will have had at least one opportunity to participate in biomonitoring.
- Every household will have received materials at least once per year.
- Every household will have received a survey asking what's effective, what's not.

- Every community person would have had the opportunity to attend at least 1 community meeting per year.
- Meetings would be evaluated - when they came, was the info good, were the meetings good.
- We have identified what behaviors are causing exposure.
- We have changed those behaviors to reduce exposures.
- We're monitoring turnover in homes, we're providing additional outreach, education, testing for homes that turn over.

Process for Development of CHEOP

Community Involvement

Insert discussion of values of participation, meetings held, dates, times, formats, methods used to seek participation, community and groups participating and providing input.

- DEH would establish the steering committee to address administrative issues and lay groundwork for bio-monitoring to commence in Spring of 2004.
- Communities will choose two residents to participate in the Steering Committee.
- Individual communities will decide on the where, when and how of bio-monitoring in their community.
- Individual communities will decide on the where, when, and how of health education in their community.

Existing Community Strengths and Weaknesses

Community members described many strengths in their communities that could enhance and improve the CHP. These include: *Need to include items from subsequent meetings, expand and include discussion and description of each item so better describe why it is a strength/resource.*

- On-going soil removal
- Kids At Play Study and bio-monitoring conducted through that program
- Expertise and relationships of the working group
- Cross Community/CEASE involvement
- Assistance currently provided in contacting individuals for soil removal
- Healthy Children Partnership taking place in Clayton
- Activities and programs available through Northeast Denver Housing Center
- Neighborhood Newsletters
- Fact sheet mailed about CHP
- Environment group available to coordinate needs and implement work in Cole
- Healthy Children Partnership in Cole
- Elyria Swansea newsletter
- Elyria-Swansea block captains
- Community Involvement/participation

Environmental Justice Concerns
Include narrative describing EJ concerns facing neighborhood, cumulative sources of pollutants of concern, borrow from ATSDR PHA, why important to address EJ issues, make sure reviewed by community and acceptable.

What has worked in other communities
Description and discussion of outreach options, what worked, what didn't, did they work in similar EJ communities, how was success evaluated,

- Lay health advisors
- Outreach through schools
- Health Fairs
- Low-literacy materials

Development of Components
Describe development, source materials

Timeframe
Insert schedule of previous and planned activities

Components of CHEOP

Outreach methods preferred by the community

- Who - Promotora/ Community Health Worker is preferred method – don't limit to one method. *include description of how this would work, curricula, training provided, expectations of promotoras, evaluation mechanisms, tracking, coordination needed –*
- How – use written materials, neighbor-to-neighbor discussions,
- Where - Health Fairs, School Presentations, door to door contacts, engage kids at schools, science fairs, glow germ demonstrations, science class presentations Household contacts through direct contact
- When – starting in June/July
- Provide incentives for kids
- Need on-going training, evaluation, feedback
- Other

Materials for use during education and outreach

- Existing materials, evaluate and revise as needed. *include education on the site, remediation, who is eligible for biomonitoring and for remediation, what has happened in the past, what will happen.*

Distribution plans for education and outreach

-

Evaluation mechanisms
Summarize evaluation mechanisms for each outreach method

Reporting mechanisms

- monthly report on activities conducted, contacts made, plans for next month, problems, resolution
- quarterly report (or semi-annual?) with preliminary evaluation data
- annual report, evaluation results
- meetings with community (or community oversight) – frequency, content, schedule

On-going communication, feedback, and revision of above

- meetings with community (or community oversight) – frequency, content, schedule

Promotora Curricula – Training Manual

This is just a strawman – we need to compare and add/subtract, utilize existing information that's been developed for VB, and make appropriate for these communities

Purpose of Manual
Project Description
What is a Promotora/ Lay Health Advisor
    Characteristics
    Who can be a promotora/ lay health advisor
Expectations
    Role of promotora
    Listening
    Duties (attend training, share knowledge, document activities, attend meetings, communicate)
    Promotora agreements
    Record-keeping
    Stipend/Payment
    Reporting
Understanding Lead
    What is lead?
    What is lead poisoning
    What are the main sources of lead poisoning
    How lead gets in the body
    What are the symptoms?
    Importance of testing
Understanding Arsenic
    Same Qs as lead
Prevention
    Screening – importance and where offered
    Handwashing
    Housekeeping
    Where children play
    Toys and shoes
    Nutrition

- Site Cleanup and other cleanup activities
  - Home inspections
  - Soil Cleanup
  - Coordination
  - Lead Paint Resources
- Frequently Asked Questions
- Educational Materials
- Other Resources

VB-I70 COMMUNITY HEALTH PLAN MEETING
March 8, 2004

AGENDA

I. **Approval of the minutes**

II. **Comments on the draft outline - topics to be added or deleted**

III. **Brainstorming about what has been effective in the VB-I70 area**

IV. **Next steps**

- Community meetings
- Presentation of information from the communities
- Preliminary action plan developed
- Subcommittees meet

Minutes of the Vasquez Boulevard/I-70 Work Group and CEASE Community Health Outreach Planning March 8, 2004

Attendees: Kenneth Cotton, Pat Courtney, Lorraine Granado, Victor Ketellapper, Michael Kosnett, Rocio Perez, Ellen Salvador, Gloria Shearer, Jennifer Slavick, Beverly Tafoya-Dominguez, Anthony Thomas, Celia VanDerLoop, Sunny Walker

Beverly Tafoya-Dominguez presented an outline of the items that needed to be covered:

- Review of Minutes,
- Review of Outline,
- What has worked to educate the VB I-70 community in order to conduct future outreach, and
- the next steps the group should take.

Previous meeting minutes were reviewed and revisions accepted. A draft outline of a Health Education and Outreach Program Plan was distributed and briefly reviewed. Group members were requested to get any suggested changes to Celia VanDerLoop.

Sunny Walker (DEH Facilitator) led the group to a brainstorm session. The following outlines the group's ideas of what has worked in the past and needs to be part of the community health plan:

- Increase awareness on the hazards of disturbing lead paint during home renovation and remodeling;
- Increase awareness of lead-safe home renovation practices;
- Outreach to those who do remodeling & have information available in paint/supply places. There are existing good quality materials available from California.
- Identify those in the neighborhood who have been trained to do lead paint testing.
- Need people who know what they are doing. All outreach workers need to be well-trained. Make sure those doing the work are appropriately trained and monitored.
- Involve the community in design of materials.
- Kids at Play Health Study – build on its successes. It had good participation, door-to-door outreach worked, field office in community helped, community involvement helped gain participation.
- A poster session held in the community helped people to understand. People liked the materials and liked being able to go to tables to talk to a person.
- Door-to-door contacts and distribution of materials need to be provided more than once.
- Quarterly updates on progress should be provided that would include health education refresher/updates.
- Use flyers, inserts in existing newsletters.

- Go to organized neighborhood groups already meeting w/ presentations – allow time for Q&A.
- Provide a common place where the community can go to talk to a person in the event that they had specific questions regarding the testing and or process,
- Provide presentations at fairs, schools, and neighborhood meetings. These presentations will reinforce the importance of the educational outreach messages and give the community an opportunity to interact and ask questions to make them more knowledgeable and empower them to share information.
- The outreach program should develop relationships w/schools
- Distribute flyers that go home w/kids in the Thursday/Friday folder
- Get kids involved in project doing outreach – it involves their parents
- Activity page for younger kids as flyer
- Bi-lingual materials
- Have kids read materials for clarity
- Visit classrooms to explain materials – preferably community person
- Middle & High schools – presentations in science class conducted by students
- Middle school – environmental clubs "Earthkeepers"
- Students participating in setting up tables at fairs.
- If lead testing is being conducted in the exterior of a home, we need to set a system in place that will test the interior of the home for lead-based paint.
- Consult with Wendy Hawthorne regarding the screening of homes and how to identify problem areas as well as the cost-share to do interior work at the same time.
- In addition we need to develop a way to test paint and find a way to get people certified on lead testing.
- Provide fact sheets from contractors doing soil removal
- Use grassroots vs. top-down approach
- EPA input to newsletter
- Testing & education at homes during soil removal process
- Talk w/ Wendy Hawthorn (NDHC) on funding & coordination
- Certify more people re: interior testing
- Focus in neighborhoods where some properties are undergoing cleanup to gain interest.
- Look into grants focused solely on health issues such as Colorado Cares and ways it could raise funds to contract with Northeast Denver Housing to certify more community people to do lead testing.
- Focus on quick results
- During clean-up – be sure whole block is aware & tested (soil and paint)
- Verify all DPS schools interiors have been tested
- Supplement federal pamphlets w/ information regarding these neighborhoods
- Get realtors on board – so it becomes part of their culture –
- Include lead testing with inspections – involve realtors, and health department and look into ordinance

- Involve house inspectors or list of those who test for less
- Their should be an ordinance requiring lead testing to be part of home inspection upon the sale of the residence and realtors should be involved in the process.
- Have a follow-up program w/ new homebuyers
- Brainstorm w/ sympathetic realtors
- Check local ordinances re: painter certification

Next meeting:
Scheduled for March 25, 2004 at Globeville
The group will discuss:

- educational materials to be included as part of the educational outreach program in terms of training curriculum, lead in home with realtors, evaluations and findings
- begin the framework for distribution of those materials.

Action Items:

- The group is asked to review the educational material packets prepared by DEH prior to our next meeting and to be prepared to provide input to the group.
- Rocio Perez will create a list of the following items including contact information and dates:
    - Local list of Fairs to present at
    - Lists – newsletters, schools w/ "go home" folders dates, fairs
    - Neighborhood picnics, other events

Attendees: Anthony Thomas, Beverly Tafoya-Dominguez, Celia Vanderloop, Ellen Salvador, Gloria A. Shearer, Jennifer Slavick, Kenneth Cotton, Lorraine Granado, Michael Kosnett, Pat Courtney, Rocio Perez, Sunny Walker, and Victor Ketellapper

March 8, 2004
VB I-70 Community Health Plan
Working Group Meeting – Cross Community Coalition
4400 Lincoln St, Denver, CO 80216

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Vasquez Boulevard/I-70
Community Health Outreach Planning

AGENDA

March 25, 2004

Welcome & Updates

Agenda Review

Consensus Workshop: What are the elements of our message?

Materials Review

- Do any immediately appear to be useful as is (or nearly)?
- Matrix of materials: Overview
  - Checking each for general usability, message, style, etc.
  - Weeding out of materials – Selecting the Best

Next Steps with Materials & Who's Responsible by When

Action Planning re Overall Health Education Plan
- Beginning with last meeting's list of "what has worked"
- Adding in Community Input

Health Education Plan Next Steps

NEXT MEETING: April 8, 2004 9:00 – 11:00 AM

Minutes of VB/I-70 Workgroup and CEASE meeting of March 25, 2004

Present Attendees: Derek Boer, Pat Courtney, Kenneth Cotton, Pat Ennis, Lorraine Granado, Wendy Hawthorne, Victor Ketellaper, Rocio Perez, Dorothy Reed RN, Ellen Salvador, Gloria A. Shearer, Jennifer Slavick, Akwe Starnes, Beverly Tafoya-Dominguez, Anthony Thomas, Celia VanDerLoop, Sunny Walker and Jim Weaver

Corrections/additions to previous minutes: Correction were made to previous minutes. Meeting minutes were approved as written.

Jim Weaver expressed his support for the methods (Technology of Participation methods) being used to organize and compile community input at the meetings.

The group spent some time reviewing previous suggestions in order to identify common message themes needed. After discussion, the group decided that the main categories of messages needed include: renovation, steps to take, resources available, sources of poisons, kids and testing, home testing, lead and arsenic are bad, you have the power, and other. See the attached table for the specific components of each message. These general messages will form the basis of materials development and/or modification. The CHP will distribute materials that contain and clearly communicate these messages in a culturally appropriate way, at an appropriate literacy level.

We had initially planned to discuss the educational materials mailed utilizing priority mail service on 3/13/2004 and identify which of these materials worked well in addressing the message needs identified. However, not all group members had been able to review the materials. We agreed to postpone the materials discussion until our April 8, 2004 meeting. We did have some discussion of a few of the materials. Gloria Shearer was interested in the coloring book, and whether the coloring book was available in Spanish. DEH was to check on whether we could find existing lead awareness coloring books in Spanish as well as English.

The group discussed the outreach methods used to gather community input. The action planning results include input from the VB/I70 workgroup and CEASE members as well as from community members who requested special meetings so as to ensure the highest level of community participation possible. During the consensus workshop participants reviewed the materials from previous community meetings and brainstormed about what should be the educational messages provided to VB/I-70 residents. They included: Renovation, Prevention Steps, Resources, Sources of Lead and Arsenic, Kid Testing (Biomonitoring), Home Testing (Home Investigations), Lead and Arsenic are bad. (Lead/Arsenic Awareness) and You have the power. The "other" category had cultural sensitivity as an item.

When it came to discussing community ideas for message delivery, the group divided the distribution methods into personal approaches and outreach via materials. The community determined that Lay Health Workers (Promotoras), and Adolescent Community Educators (ACEs??) would be one method with which to educate the community and disseminate materials through personal contacts.

Anthony Thomas stated his dissatisfaction with the process for the community meetings and his wish that the program would follow the EPA's methods used four years ago when the area was being considered for Superfund Site designation. Lorraine Granado also expressed that she did not know about the other community meetings and would have helped publicize them more if she had been aware. Celia VanDerLoop clarified that the meetings were held at the request of community members and agencies who wished to ensure that no person/group who wished to be involved in the planning

process was left out. Since errors in the USPS mailing system ended up in a failed delivery of postcard invitations for the first meeting, DEH had decided to try a different meeting notification method. Over 4000 bi-lingual flyers, with all of the remaining meetings listed, were distributed through the elementary schools in the VB-I70 area. Anthony Thomas approved efforts by the St Cajetan's Church Youth Group to place flyers door-to-door in the Clayton Neighborhood, but said that some homes did not receive flyers. Attendance at some of the meetings, despite flyers, phone calls and in person invitations, was minimal. Other community meetings had better attendance.

Jim Weaver commented that flyers with information about the VB/I-70 briefing at the Cole Neighborhood Organizing Alliance Meeting and inviting Cole residents to attend the meeting were distributed door to door in Cole with little success. Per the previous suggestions of Jim Weaver, Lorraine Granado, Anthony Thomas and Ellen Salvador and other work group members, informal small group interviews were held with Latino community members to solicit their input. Clayton Head Start's Parent Night, The Hope Center's Parent Night, Cole Neighborhood Organizing Alliance and the Cross-Community Coalition ESL class participants were asked for input.

Dorothy Reed, a DPS school nurse shared with the group that the school personnel and children need to be involved in a cause before the message really gets to the parents. She has found that sending information without involving the school personnel and children is not a good method of distribution. She is willing to work as part of the CHP group.

The group members once again expressed the idea that home investigation/indoor paint remediation should somehow be linked to CHP efforts and decided that the group should here from Wendy Hawthorne of the Northeast Denver Housing Center (NDHC) to determine how we should work together to accomplish as much testing and remediation as possible. The group expressed the desire to have a presentation about the services available through NDHC as soon as possible and to postpone the materials evaluation until after that presentation.

Jim Weaver (and others) expressed frustration felt by the community as regards to time taken up by planning efforts and the wish that actions be commenced as soon as possible. After some discussion regarding ways to move forward, the group agreed that DEH would organize the previously collected input from the community in order to lay out a plan of action to move forward. DEH would present that organizational effort as a "straw man" at a later meeting for input by the community. Community members should feel free to identify areas that were missed, areas where the organization scheme laid out by DEH does not make sense, or additional thoughts to be included. Please see the attached tables that describe the result of DEH's efforts to organize the methods, messages, audiences, and mechanisms for delivery, to be used to conduct outreach.

Attendees: Anthony Thomas, Beverly Tafoya-Dominguez, Celia Vanderloop, Derek Boer, Ellen Salvador, Gloria A. Shearer, Dorothy Reed, Jennifer Slavick, Jim Weaver, Kenneth Cotton, Lorraine Granado, Marilyn Starnes (Akwe), Pat Courtney, Pat Ennis, Rocio Perez, Sunny Walker, Victor Ketellapper, and Wendy Hawthorne

March 25, 2004
VB I-70 Community Health Plan
Working Group Meeting – Cross Community Coalition
4400 Lincoln St, Denver, CO 80216

CONTACT LISTS
for meeting of

March 25, 2004
VB I-70 Community Health Plan
Working Group Meeting – Cross Community Coalition
4400 Lincoln St, Denver, CO 80216

See Appendix B-2 for Copies of Contact Lists

1. VB I-70 Working Group and Cease Community Meeting Health Planning Meeting Contacts

2. VB I-70 Working Group and Cease Community Meeting Health Planning Meeting Quarterly Contacts

For the community meetings, the people identified in the VB I-70 Working Group and CEASE Community Health Planning Meeting Contacts were called and reminded of meetings scheduled for each meeting. Individuals on VB I-70 Working Group and CEASE Community Health Planning Meeting Quarterly Contacts were called on a quarterly basis, invited and updated on the status of the meetings.

MEETING HANDOUTS
for meeting of

March 25, 2004
VB I-70 Community Health Plan
Working Group Meeting – Cross Community Coalition
4400 Lincoln St, Denver, CO 80216

See Appendix B-3 for Copies of Listed Handout Materials

1. Arsenic in Soil

2. EPA Anuncia la Decisión Final de Limpieza para Suelos Residenciales en el Sitio de Superfondo VB/I-70

3. EPA Announcements the Final Cleanup Decision for Residential Soils in the VB/I-70 Superfund Site

4. Record of Decision

EDUCATIONAL MATERIALS

U.S. POSTAL SERVICE **CERTIFICATE OF MAILING**

MAY BE USED FOR DOMESTIC AND INTERNATIONAL MAIL, DOES NOT PROVIDE FOR INSURANCE–POSTMASTER

Received From:

Beverly Tafoya-Domingo
201 W Colfax Denver
CO 80221

One piece of ordinary mail addressed to:

CEASE/VBI-70
Work Group Member
(11 packages)
2134 Gaylord Denver CO
80205

PS Form 3817, January 2001

DENVER DOWNTOWN STATION 80202 USPS MAR 13 2004

UNITED STATES POSTAL SERVICE

U.S. POSTAGE
PAID
DENVER, CO
80202
MAR 13, 04
AMOUNT
$0.90
00058233-15

VB/I-70 COMMUNITY HEALTH PLAN MEETING

April 8, 2004 at 9:00a.m.

AGENDA

I. **Introductions**

II. **Approval of the minutes**

III. **Wendy Hawthorne** (Northeast Denver Housing)
   a. Past, current and future efforts in the VB-I70 area
   b. Resources available

IV. **Educational materials review**
   a. Review English materials
   b. Review Spanish materials

V. **Next steps**

VII. **Other Business**

Minutes of the CEASE/VB-I70 Working Group Meeting 4/8/04

Attendees: Derek Boer, Patsy Bruce, Pat Courtney, Kenneth Cotton, Pat Ennis, Lorraine Granado, Wendy Hawthorne, Nita Kennedy, Rosa María Leon, Rocio Perez, Chris Poulet, Gloria A. Shearer, Jennifer Slavick, Akwe Starnes, Beverly Tafoya-Dominguez, Anthony Thomas, Celia VanDerLoop, Sunny Walker and Jim Weaver

The previous meeting minutes were approved as written.

The meeting began with a presentation by Wendy Hawthorne of Northeast Denver Housing (NDHC):

Wendy Hawthorne of NDHC talked about services offered through their Lead Hazard Control and Healthy Homes Programs. Currently they can only conduct lead abatement if there is an EBL child on the premises or who spends a significant amount of time on the premises and if families meet the income guidelines or as part of a federally funded housing rehabilitation project. Families must make less than 50% of the current median income of Denver residents to qualify for services. NDHC does a full risk assessment including paint, dust, soil testing, but limited on paint to areas where the paint is in poor condition. For soil, they do a minimal test and will remove 1" of topsoil if it has paint chips. They try to create a barrier with grass or road base and will fence off more serious problem areas.

Las Actas de la Reunión del CEASE/VB/I70 Grupo de Trabajo en el día 8 de Abril de 2004

Participantes Derek Boer, Patsy Bruce, Pat Courtney, Kenneth Cotton, Pat Ennis, Lorraine Granado, Wendy Hawthorne, Nita Kennedy, Rosa María Leon, Rocio Perez, Chris Poulet, Gloria A. Shearer, Jennifer Slavick, Akwe Starnes, Beverly Tafoya-Dominguez, Anthony Thomas, Celia VanDerLoop, Sunny Walker y Jim Weaver

Las actas de la ultima reunión fueron aceptadas como fueron escritos.

La Srta. Wendy Hawthorne del Centro de Vivienda del Noreste de Denver (NDHC) hablo tocante su programa.

La Srta. Wendy Hawthorne nos hablo tocante los servicios que ofrece por medio de las donas del gobierno federal intitularon Control de los Peligros del Plomo y el Programa de Hogares Saludables. Ahora, ellos solo pueden remediar casas que tienen exceso de plomo solo si hay un niño o una niña que tiene altos niveles de plomo en la sangre viviendo o quedándose allí por bastante tiempo y si la familia están bajos del limite de ingresos propuestos en la dona. También se puede usar fondos como parte de un programa federal que remodela casas. Las familias tienen que hacer menos que 50% del ingreso mediano de los residentes de Denver para calificar. El NDHC hace una evaluación completa que incluye una evaluación de la pintura, el polvo, y la tierra, pero solo evalúa las áreas donde la condición de la pintura es mala. Para la tierra, ellos hacen una evaluación mínima y si hallan pedazos de pintura ellos remuevan una pulgada de la tierra. Traten de formar una barrera con césped o asfalto y también ponen un cerco alrededor de áreas con problemas.

NDHC follows HUD's protocols of testing only play area and consider removal necessary in play areas if it exceeds 400 ppm of lead. They will also test the houses "drip line" (area near house where water might wash outside contaminated paint into the soil) and remove it if it exceeds 1200 ppm of lead.

El NDHC sigue los protocolos de HUD en evaluar la tierra en las áreas donde juegan los niños. Si los niveles son más altos que 400 partes por millón (ppm) de plomo. También evalúan la tierra alrededor del la casa cerca del techo donde se gota el agua (el área cerca de la casa donde agua puede cargar la pintura contaminada al suelo y remueven la tierra si los niveles son más altos que 1200ppm de plomo.

NDHC spends an average of $4500 per home if they are working with another program which can fund parts of the testing and/or clean-up, but may spend $6500-$7000 per home if not. They are using a forgivable loan program whereby they will forgive the amount spent at 20% per year until it is all gone or until the house sells and the balance is due upon sale. Such loans carry no interest and require no payments. The loan is usually carried in-house by NDHC, unless the homeowner requires something different (i.e., the owner does not have paperwork to indicate the loan, seen as a lien against the property, is going down unless the owner requests paperwork to have showing an adjusted balance (20% less each year). This will be done annually if requested. If the owner is trying to refinance, NDHC will provide consumer credit counseling to prevent the owners from scams and will usually agree to have the loan seconded to the mortgage.

El NDHC gasta un promedio de $4,500 por casa si están trabajando con otros programas que ayudan pagar para las evaluaciones y la limpieza, pero podrían gastar $6,500-$7,000 si son el único programa remediando la casa. Ellos usan un préstamo y perdonan 20% por año hasta que se perdona totalmente o hasta que venden la casa y pagan el saldo como parte de la venta. Estos préstamos no cargan interés y no requieren pagos. El NDHC mantiene los archivos del préstamo, a menos que el dueño de la casa necesita arreglo diferente (por ejemplo: si el dueño necesita el archivo para indicar que el préstamo no es préstamo regular que usa la casa como seguridad y se está bajando 20% cada año, entonces el NDHC provee los archivos mostrando que el saldo cada año se baja por 20%. Si el dueño esta tratando de refinanciar su hipoteca, el NDHC provee consejería para prevenir que los dueños sean victimas de prácticas criminales y normalmente se ponen en acuerdo que pueden mantener el préstamo perdonable como préstamo perdonable.

The loans are applicable whether the home is owner occupied or a rental. However, it stipulates that the owner must keep rentals affordable to those whose income is only up to 50% of the median income in Denver.

Estos préstamos se aplican a ambos los que viven en su propia casa o a los dueños que alquilan viviendas. Si un dueño que alquila (renta) viviendas y aprovecha de uno o más prestamos tiene que mantener los costos de alquilar sus viviendas a un nivel que es asequible para los que ganen hasta 50% del nivel de ingresos medianos en Denver.

NDHC also offers free blood testing in the summer, mostly in NE Denver, some in NW and other areas, usually coordinated with Mile High Childcare Centers and through community fairs, the Kaiser Health Fair and others. NDHC does the logistics (set up, providing toys and holding children's hands...) and CDPHE does the actual testing.

El NDHC también ofrece exámenes de sangre gratis, principalmente en el noreste de Denver y algunos en el noroeste y otros áreas, normalmente coordinados con las Guarderías de Mile High y con las ferias comunales como el Kaiser Health Fair y otras. El NDHC está en cargo de las cosas logísticas (montar, proveer juguetes y teniendo las manos de los niños etc.) y el Departamento de Salud Pública y El Medio Ambiente de Colorado hace los exámenes.

Cole and Clayton have SEP funds to carry out a program called the Healthy Children Partnership to train young people to be lead investigators and a fully trained (certified) person always goes with them. Only people 18 years of age and older are allowed to participate in the investigations. They do a mini-educational visit and only take 5 or so samples vs. the more standard (or rigorous) 30 samples. They are also limited to homes where a child under six is there sometimes (does not have to live there if they spend a significant amount of time in the home). Trainees can decide to go further with their training and NDHC supports them in their efforts. This grant will end in about 18 months.

Los barrios de Cole y Clayton tienen dineros por el programa SEP que usan para montar el programa Healthy Children Partnership (HCP), que es la Colaboración para Niños Saludables, para entrenar a jóvenes para hacer investigaciones de plomo y siempre están en la compañía de una persona completamente entrenado y certificado cuando van a las casas. Solamente jóvenes con 18 años o más pueden participar en las investigaciones. Ellos ofrecen un breve taller y toman más o menos 5 muestras en comparación con una investigación completa que cumple con el nivel exigido de 30 o más muestras. También tienen están limitados a hacer los talleres solo en las casas donde viven o visiten por largo tiempos niños que tienen menor de seis años. Los jóvenes tienen la oportunidad de obtener más entrenamiento con el apoyo de NDHC. Los fondos para el programa terminarán en 18 meses.

The Healthy Homes grant funds are used to check for and repair other hazards if they are in the house being investigated for lead hazards. These include such dangers as radon, roaches, and sparking electrical wires.

Los fondos para el programa de Healthy Homes (Hogares Saludables) se usan para investigar y reparar casas con otros peligros notados durante los investigaciones por el plomo. Incluyen peligros como el radón, cucarachas, y alambres eléctricos que chispan.

Note that this Healthy Homes grant is up in the summer and will have to be re-invented in order to be funded again. It may be possible to request funds for testing homes in the VB/I-70 area where no known lead hazards exist as part of the next grant.

Note que el programa de Hogares Saludables necesita aplicar para más fondos este verano y tendrán que re-inventar el programa para recibir más dineros. Sería posible pedir fondos para examinar a las casas in el área VB/I-70 donde no hay prueba que existe plomo en la casa como parte del próximo programa.

Wendy is working with Victor Ketellaper (EPA) to test exterior paint where yards are being remediated. There are some funding issues that need to be resolved between the agencies, but the initial plans call for NDHC to test exterior paint, write and, if needed, carry out an abatement plan to protect the yard from being recontaminated. EPA is paying for this testing and exterior lead paint abatement. NDHC, through another program, is currently training neighborhood residents to do visual inspections. They are paid a stipend during training and then when fully trained are paid per inspection completed. The current level of training is not sufficient to meet the standards required for complete independent home investigations, however.

Wendy esta trabajando con el Sr. Victor Ketellaper de la Agencia para Protección del Medio Ambiente (Environmental Protection Agency o EPA en inglés) para examinar a la pintura exterior en las casas donde han removido la tierra. Hay algunos temas que se tiene que resolver tocante los fondos, pero los planes iniciales indican que el NDHC va a examinar a la pintura exterior, escribir un plan, y si es necesario, cumplir con el plan para remediar a la pintura exterior para prevenir que la tierra nueva no sea contaminada otra vez. La EPA va a pagar por la investigación y remediación. El NDHC, usando fondos proveídos por otro programa, esta entrenando a miembros de los barrios locales a hacer inspecciones visuales. Le pagan un poco de dinero durante el entrenamiento y cuando ya están entrenados los pagan por cada casa investigada. Sin embargo, el nivel de entrenamiento no es suficiente para cumplir con los niveles de entrenamiento exigidos por el estado para hacer investigaciones completas.

Wendy clarified that if and when NDHC starts the planned abatement process they will always be behind schedule and that the exterior abatement will take place after the soil remediation has occurred. Jim Weaver and other community members saw this approach as being counterintuitive. The ideal situation they agreed is to remove the contaminated paint before replacing the soil. Jim Weaver and others suggested that NDHC jump ahead and begin testing exterior paint on homes scheduled for soil removal; and continue to catch-up on homes already remediated. Wendy agreed that this approach makes sense as it takes a fairly long period of time for soil to become significantly recontaminated. CEASE is formally recommending this "jump ahead" approach, with continued catch-up of homes already remediated.

Wendy aclaró que si y cuando el NDHC empiece con el proceso de remediación planeado, ellos siempre estarán por detrás del horario y que el remediación exterior se llevara a cabo después que han removido la tierra. El Sr. Jim Weaver y otros miembros de la comunidad pensaron que esta propuesta no es lógica. La situación ideal es: remueve (remedie) la pintura exterior contaminada antes que reemplacen la tierra. El Sr. Weaver y otros recomendaron que el NDHC debe empezar con las investigaciones de la pintura exterior en las casas que están en el horario para remover la tierra y continúen a remediar la pintura exterior en las casas que ya fueron remediadas cuando puedan. La Wendy estaba de acuerdo con esta propuesta porque toma bastante tiempo para que la tierra empiece ser considerablemente recontaminada. El grupo CEASE formalmente recomendó que la propuesta nueva de investigar a la exterior de las casas que se van a remediar antes de que empiecen remover la tierra y que continúe el NDHC remediar las casas que han tenidos su patios remediadas cuando puedan.

While all agreed that interior testing is needed and should be conducted when the exterior paint is being tested, it is important to understand that funding is not in place for doing interior testing at this time. There was some question as to whether or not EPA could fund this testing. It is certain that EPA or Denver Environmental Health Department CANNOT fund abatement on the inside of a home using Superfund monies.

Mientras que todos están de acuerdo que se necesita también investigar a las interiores de la casa y estas investigaciones deben ser conducidas mientras que hacen las investigaciones exteriores, es importante comprender que por ahora no hay dinero para hacerlas. Había preocupaciones tocantes a la capacidad de la EPA a pagar por estos investigaciones interiores. Es cierto que la EPA ni el Departamento de Salud Ambiental de Denver (la DEH) NO PODRAN pagar por remedios de casa interiores usando los dineros del Super Fondo.

One idea from NDHC was to see if, at the same time as soil removal and/or other exterior abatement, windows contaminated with exterior lead based paint could be replaced using Superfund dollars. This would handle the largest expense of interior abatement should interior abatement be needed.

Una idea del NDHC fue a ver si, al mismo vez que están removiendo la tierra y/o haciendo los reovaciones exteriores el EPA podría pagar por remover las ventanas contaminadas con polvo. Este les beneficiarán a los dueños de la casa si deciden ellos a hacer su propio remediación interior porque esto es lo que cuesta más y es donde viene la mayoría del plomo en el interior de la casa.

At this point, Rosa María Leon, a Hispanic resident of Cole, arrived with Nita Kennedy, the parish nurse. Rosemary had received a letter from EPA and had some questions to bring up to the group. First, the letter in English said the resident (owner or tenant) would be notified before EPA came to do soil removal. However, in the Spanish version, it said they would *not* be notified. Pat Courtney clarified that the correct version was the English one. Residents will be notified. An additional question was around the contents of the letter regarding soil lead levels. It gave the levels of lead and arsenic on the property, but no normal levels. In trying to find out something for Rosemary, a monolingual Spanish speaker, Nita was transferred to a lot of places before finding out the information needed. She was invited to attend the CEASE/VB/I-70 Working Group meetings and encouraged to bring interested Spanish speaking residents. Rosa María has agreed to continue participating in this group.

En este punto llegó la Sra. Rosa María Leon, una residente de Cole, acompañada por la Sra. Nita Kennedy, la enfermera de la parroquia de la iglesia de la Anunciación. La Sra. Leon recibió una tarjeta de la EPA y tuvo algunas preguntas sobre lo que estaba escrita en la tarjeta. Primero, en la parte escrita en inglés la tarjeta indica que el residente (dueño o inquilino o rentante o arrendatario) iba ser notificado por la EPA antes de remover la tierra. Sin embargo, la versión en español indico que solamente iban a remover a la tierra sin notificar a los ocupantes. La Sra. Pat Courtney de la EPA aclaro que la propuesta correcta fue la que estaba escrito en inglés y que los ocupantes serán notificados antes que empiezan remover la tierra. Una pregunta adicional relativa al contenido de la tarjeta, tocante a los niveles de plomo en la tierra. La tarjeta tuvo los niveles de plomo y arsénico escrito en ella pero no tuvo información tocante a los niveles normales. En tratar de ayudar a la Sra. Rosa María, La Sra. Nita fue transferida a muchos lugares antes que pudo hallar a la información correcta. Ella fue invitada a asistir a las juntas del CEASE/ VB/I-70 Working Group (El grupo de vecindarios de Cole, Clayton, Elyria, Swansea, e otros como Globeville) y los participantes de agencias trabajando con temas de el área VB/I-70) y la animamos a traer a los Hispano hablantes interesados en este grupo. La Sra. Rosa María nos dijo que quiere participar en este grupo.

CEASE then recommended that the mistranslated items be corrected and that all letters include a contact list with Spanish language resources included. Pat Courtney said that there is or (will be?) a Spanish Language Hotline for monolingual Spanish speakers to call and get information. Lorraine volunteered to have someone look at current/new EPA materials to insure they are "community friendly."

El CEASE recomendó que se corrijan los errores en traducción y que todos las tarjetas contienen una lista de recursos en español que se puede contactar. La Sra. Pat Courtney dijo que hay (o hará?) una línea telefónica especial para que los hispano hablantes podrían llamar para ayuda con cualquier pregunta o problema. La Sra. Lorraine Granado ofreció los servicios de alguien en su grupo para repasar a las materiales nuevas de la EPA para asegurar que sean correctas y respetuosas.

The group then returned to the balance of Wendy's presentation.

Entonces revolvimos al saldo de la presentación de la Srta. Wendy

Jim Weaver raised a question about the extent to which NDHC and DEH were working together. He also raised the question of whether or not CHP funds could be used for indoor testing and abatement since the funding is being passed through to DEH. Beverly Tafoya-Dominguez clarified that DEH is not allowed to conduct activities that are contrary to EPA constraints. Beverly and Wendy clarified that DEH is working with NDHC and EPA on the bio-monitoring efforts and coordinate activities regarding home investigations and abatement on a routine basis. Jim feels that it would be too confusing for residents to be visited by members of so many different groups and the rest of the participants concurred. Jim and Lorraine Granado added that more coordination is needed with regards to VB/I-70 matters and that the community members also have a role in insuring this takes place. Lorraine requested that agency coordination be included on the agenda for the next meeting.

El Sr. Jim Weaver pidió una pregunta tocante al punto de que están trabajando juntos el NDHC y el DEH. También se dirigió al tema de que si puede o no se puede usar los fondos designados por el Plan de Salud Comunal (en inglés Community Health Plan, CHP) para hacer las investigaciones y remediaciones interiores ya que los fondos se pasan de la EPA a el DEH. La Sra. Beverly Tafoya-Dominguez aclaró que el DEH no puede hacer actividades prohibidos por la EPA. Las Sras. Beverly y Wendy aclararon que el DEH si esta trabajando con el NDHC y la EPA en los esfuerzos de examinar a la sangre y por rutina coordinan las actividades tocante a las investigaciones y remediación de casas. El Sr. Jim se siente que se van a poner muy confundidos los residentes si muchas personas de diferentes grupos vienen a hablar con ellos. El grupo se puso de acuerdo con esta idea. El Sr. Jim y la Sra. Lorraine añadieron que necesitan tener más coordinación tocante las temas de la área VB/I-70 y que también los miembros de la comunidad tienen un papel en asegurar que esto pasa. La Sra. Lorraine pidió que la tema de coordinación de agencias sería incluido en la agenda de la siguiente reunión.

Questions continued, in relation to the CHP, with how to get houses tested that aren't having their soil redone. Wendy mentioned that action is also needed for houses with yards that are contaminated in spots, but the overall soil investigation did not identify levels high enough to warrant soil removal.

Otras preguntas relativas al CHP (Plan de Salud Comunal) se formaron, por ejemplo: ¿Cómo se puede investigar a las casas donde no se van a remediar los patios (remover la tierra)? La Srta. Wendy mencionó que también necesitan remediar las casa con patios que solo están contaminadas en ciertas lugares, pero que no había suficiente contaminación para remediar el patio completo.

Wendy further reported that about 10-12 homes in Cole and 15 in Clayton have been tested by trained community workers. Their goal is to complete 50 homes before the end of the grant. Several neighborhood residents have been trained to provide visual inspections. The inspectors-in-training accompany a fully certified NDHC staff member. During training they receive a stipend and after being trained are paid for each home inspected. More extensive training will be needed for these and other residents hired to conduct complete, independent investigations should these be funded.

La Srta. Wendy también reportó que hay 10-12 casas en el Cole y 15 en el Clayton que han sido investigados por trabajadores locales entrenados. La meta es a investigar a 50 casas antes que termine los fondos para el programa. Varios residentes han sido entrenados a proveer inspecciones visuales. Estos inspectores aprendices acompañan a uno de los miembros del personal de NDHC que están certificados. Ellos reciben un sueldo chico durante su entrenamiento y después de ser entrenados le pagan por cada casa inspeccionada. Entrenamiento más extensivo es necesario para que ellos y otros residentes de la comunidad podrán hacer investigaciones completos e independientes.

A key question for clarification from EPA is whether or not interiors of homes can be tested under the CHP regardless of the soil abatement status if the community wants it and puts it into the plan. EPA will check on this, but did re-emphasize that EPA funds CANNOT be used for interior abatement.

Una pregunta clave que necesita aclarar la EPA es si se puede o no se puede investigar los interiores de las casas como parte de la CHP, a pesar de que necesitan su patio remediado o no, si la comunidad quiere hacer esto y lo pone en el plan. El personal de la EPA va a investigar esto pero, tuvieron que aventurar que los fondos de la EPA NO SE PUEDEN usar para remediar los interiores de las casas.

A final issue raised was the fact that EPA letters are only going to home owners and if the landlord doesn't give permission for the yard to be tested, then the tenant, who often has small children, doesn't know about the risk. Anthony Thomas asked if this information (which yards have high levels of lead and/or arsenic) was available under the public information act. EPA is checking into sending letters about test results to all residents, whether they are owners or tenants. Jennifer Slavick said she would address this issue with project staff.

Finalmente, la tema del hecho que las tarjetas que mandaron la EPA fueron mandados solamente a los dueños de las propiedades y si el dueño no dio permiso para que investigar a su propiedad, entonces los ocupantes, la mayoría que tienen niño(a)s jóvenes, no conocen los riesgos que podría tener la propiedad. El Sr. Antonio Thomas pidió se esta información (de cuales patios tienen altos niveles de plomo y/o arsénico) cae bajo la ley o acta tocante a la información pública. La EPA va determinar si se puede mandar los resultados de los investigaciones a todos los residentes, ambos los que sean dueños y los que sean ocupantes (inquilinos o rentantes o arrendatarios). La Srta. Jennifer Slavick dijo que va hablar con los otros miembros del personal de la EPA involucrados en el proyecto de VB/I-70.

At the request of the group members, DEH and Sunny Walker worked together to organize the ideas brainstormed in the previous session. The results of the organizing effort were presented in two documents, the CHP All Communities' Brainstorm and the VB-I70 Health Education Plan Delivery Mechanisms. Lorraine noted that youth were considered to be trainers in the plan. She suggested that youth from each community be involved and that they be paid stipends. One participant suggested that bilingual youth be utilized if at all possible. Anthony Thomas suggested that youth workers be trained in the same manner as the adult promotoras, so that the messages are consistent throughout the area. The group emphasized the need for well-trained educators/promotoras of all ages to present a consistent message and that contacts be coordinated so as not to confuse residents. Though the DEH's effort was generally accepted, however as Lorraine Granado pointed out this is still a draft plan so discussing the choosing/hiring of promotoras is premature.

En la ultima reunión los miembros del grupo pidieron que el DEH y la Sra. Sunny Walker trabajarán juntas para organizar las ideas de la lluvia de ideas que ocurrió. Los resultados de ese esfuerzo fueron compartidos con el grupo por medio de dos documentos, La Lluvia de Ideas de Todas las Comunidades y Los Mecanismos de Llevar al Cabo el Plan de Educación Tocante a la Salud en la Área del VB/I-70. La Sra. Lorraine notó que los jóvenes fueron considerados como entrenadores en el plan. Ella recomendó que deben trabajar jóvenes de cada comunidad y que deben ser voluntarios pagados. Uno de los participantes dijo que se debe utilizar jóvenes bilingües si es posible. El Sr. Anthony Thomas recomendó que los jóvenes trabajando en este esfuerzo deben ser entrenados en la misma manera que los adultos para que los mensajes sean constantes en todo el área. El grupo acentuó la necesidad de tener educadores/promotores de todas edades que son bien entrenados para presentar mensajes constantes y no confundir a los residentes. El esfuerzo del personal del DEH fue generalmente aceptado, sin embargo tenemos que recordarnos dijó la Sra. Lorraine Granado que estos documentos son un plan y que los pasos siguientes no se deben tratar todavía.

Wendy suggested that trusted groups such as NDHC, COPEEN and the Cross Community Coalition be included as educators in the CHP and that perhaps funding could be arranged to cover these education efforts. An example of an existing community training is the NDHC new homeowners workshops.

La Srta. Wendy recomendó que algunos grupos en que confían las comunidades como el NDHC, la Coalición Cruce Comunidades y el COPEEN (La Red de Educación Tocante el Medio Ambiente de la Gente de Colorado) sean incluidos como educadores en el CHP y que quizás pudieron ellos recibir fondos para sus esfuerzos educativos. Un ejemplo de estos esfuerzos de entrenamiento que ya ocurre en la comunidad son los talleres para nuevos compradores de casa que ofrece el NDHC.

The group then moved into assessing materials. While a bit of a slow process, participants decided they want to continue this detailed look at the next meeting April 22nd. They also asked that a column be added to the materials evaluation chart for "how this piece is/could be used".

El grupo entonces empezó con investgar las materias. Aunque el proceso es un poco despacio, decidieron los participantes a continuar con este método detallado en la siguiente reunión el día 22 de Abril. También pidieron que añadirá la Sra. Sunny una columna al gráfico de evaluación de materiales un columna intitulado "como se usa este folleto, noticiero, librito etc o como se puede usarla.

Attendees: Anthony Thomas, Beverly Tafoya-Dominguez, Chris Poulet, Gloria A. Shearer, Jennifer Slavick, Jim Weaver, Kenneth Cotton, Lorraine Granado, Marilyn Starnes (Akwe), Nita Kennedy, Pat Courtney, Patsy Bruce, Rosa Maria Leon, Rocio Perez, Sunny Walker, and Wendy Hawthorne

April 8, 2004
VB I-70 Community Health Plan
Working Group Meeting – Cross Community Coalition
4400 Lincoln St, Denver, CO 80216

CONTACT LISTS
for meeting of

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MEETING HANDOUTS

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See Appendix C for Educational Materials

1. Educational Materials

CHP All Communities' Brainstorm
Organized by DEH
3/29/2004

Materials	Where Materials	Media	Remodeling	Evaluations	Blood testing	Youth
Activity page as flyer (in school folders) Develop relationships w/ school – flyers that go home w/kids (Thur/Fri) EPA input to newsletter Utilize local newsletters in outreach and education Flyer newsletter Updated – flyers newsletter (as insert) Bi-lingual materials Fact sheets from contractors doing soil removal Develop own materials Have kids read materials for clarity Supplement federal pamphlets w/ information regarding these neighborhood **Planning focus: Meeting on Apr. 8th to pull from existing materials.**	Materials at Recreation centers Utilize churches, schools, and head starts Materials in paint stores Hispanics use local "Botánica" health and remedy stores List – newsletters, school w/ "go home" folder dates, and fairs Utilize websites making connections, DPS, and Youthbiz ESL classes **Planning focus: See matrix about outlets**	Need to have a "poster child" to build awareness Media campaign **Planning focus: Designed by community and youth after initial activities are underway. Need to discuss timing and who should be involved.**	Increase awareness of hazards of disturbing lead based paint during renovations Teach about safe home remodeling Outreach on remodeling Check local ordinances regarding painter certification Outreach to those who do remodeling and information in paint/supply places-materials available **Planning focus: See matrix**	Utilize existing neighborhood groups for guidance **Planning focus: Youth and/or Promotoras status communities on a regular basis.**	Utilize the Inner-City health clinic and school based clinics for testing Have doctor suggest lead testing Conduct testing at school Doctors should stress importance of exams Utilize recreation centers for testing and outreach Utilize the church to spread the word for testing Utilize existing events for testing **Planning focus: Biomonitoring subcommittee to carry out testing**	Use youth to identify target homes with many kids for outreach Involve youth Use healthy children partnership model Use children partnership Getting kids involved in project doing outreach – it involves their parents **Planning focus: Training with Promotoras. Work with the health educator and perhaps promotoras at events and in schools**

Blood testing	Presentations – personal contacts	Presentations – personal contacts	Audiences – Who's receiving the message?	How	Organizations and resources	Provider education - ATSDR
Utilize the Inner-City health clinic and school based clinics for testing Have doctor suggest lead testing Conduct testing at school Doctors should stress importance of exams Utilize recreation centers for testing and outreach Utilize the church to spread the word for testing Utilize existing events for testing	Spanish speakers love to play soccer team/league ESL classes Visit classroom to explain materials – preferably community person Middle and High school – Science classes Middle school – environmental clubs "Earth keepers" Door-to door more than once – on a quarterly basis Door-to-door outreach and education Poster session, excellent materials – tables – to talk to a person Go to organized neighborhood groups already meeting w/ presentations – allow Q&A	Setting up tables at fairs Story circles or home visits Boticas Churches Local clinics Schools Daycares and Head starts Neighborhood picnics and other events	Educate landlords and realtors Grandparents should be targeted – they do a lot of childcare Get realtors on board – so it becomes part of their culture – involve house inspectors or list of those who test for less Brainstorm with sympathetic realtor Who are the community people	Promotora(s) lay health workers Need people who know what they are doing and are well trained Dramatic presentations Use "model" homes and families Neighborhood representatives to encourage participation in testing Encourage community building activities Local list of fairs to present at Grassroots vs. Top-down approach Soil testing and education at homes during soil removal process – target, cost share.... need planning During clean-up – be sure whole block is aware and soil is tested Have a follow-up program with new homebuyers	Local "drop in office" Quick results Have a list of homes already tested and levels available How work with North East Denver Housing Talk with Wendy Hawthorn (NEDH) on funding and coordination Certify more people regarding interior testing Verify all school's interior have been tested House inspectors and who test for less Involve house inspectors in the testing of lead based paint Find out who has been trained already – insure proper training and be monitored	Special training for health care providers on Latino culture Hispanic families need culturally competent healthcare
Planning focus: Biomonitoring subcommittee	**Planning focus: Promotoras to conduct presentations**	**Planning focus: Promotoras to conduct presentations**	**Planning focus: Identify and locate message recipients**			

VB-I70 Health Education Plan
Delivery Mechanisms

Who Delivers	Messages	How Delivered	Audiences	Frequency
Promotoras	Lead is Bad	Door to door	Families	Door to door 3/yr
	Get your kids, home, yard tested	Locations for presentations	Grandparents	others as scheduled by
	What you can do	Churches	New home buyers	
	Resources	Boticas		
	Sources of Poison	Clinics		
	You have the power	Out side schools		
	Simple info on home renovation	ESL classes		
		Events, fairs, picnics		
		Preschools		
		Story Circles		
		Neighborhood Groups		
Youth	Same as promotoras	Science Classes	Children/Youth	As scheduled by DEH
		Env.Clubs	Children/Youth	School classes 1/yr each class
		Churches	Grandparents and Families	Events - as occur
		Events		comm. mtgs as they occur and
		Fairs		
		Picnics		
		Neighborhhod groups		
		backup for door-to-door later on, depending on skills, safety, assistance needed		

VB-170 Health Education Plan
Delivery Mechanisms

Who Delivers	Messages	How Delivered	Audiences	Frequency
DEH	same as promotoras but as backup QA	Same venues as above, but as oversight	same	
	safe renovation - more complex info	contractor mtgs	contractors/inspectors	groups annually
	importance that info gets out	training sessions	real estates	Trng every two weeks
	process - tracking and evaluation	schools	principals/teachers	
	How to train	training sessions	promotoras & training	
	Inspection, Regs and Notification	realtor mtgs	landlords	
		Landlord		
Trainers				

VB/I-70 COMMUNITY HEALTH PLAN MEETING
April 22, 2004 at 9:00a.m.

AGENDA

I. **Introductions**

II. **Approval of the minutes**

III. **Agenda review**

IV. **Old Business**
   a. EPA expectations
   b. Role of youth
   c. Community organizations
   d. Agency coordination
      1. Biomonitoring Steering Committee Report
   e. Lead testing in home

V. **Continue materials review**
   a. Review English materials
   b. Review Spanish materials

VII. **Next steps**

REUNIÓN TOCANTE EL PLAN DE SALUD COMUNAL DEL ÁREA VB/I-70
22 de Abril, 2004 a las 9:00a.m.

AGENDA

I. **Introducciones**

II. **Aprobación de las Actas**

III. **Repaso de la Agenda**

IV. **Negocio Viejo**
   a. Las expectativas de la EPA
   b. El papel de los jóvenes
   c. Las organizaciones comunales
   d. La coordination de las agencias
      1. Reporte del Comité Directiva de los Esfuerzos de Exámenes Biológicos
   e. Los investigaciones para plomo caseras

V. **Continuar con la revista de materiales**
   a. **Revista de materiales en inglés**
   b. **Revista de materiales en español**

VII. **Los Pasos Siguientes**

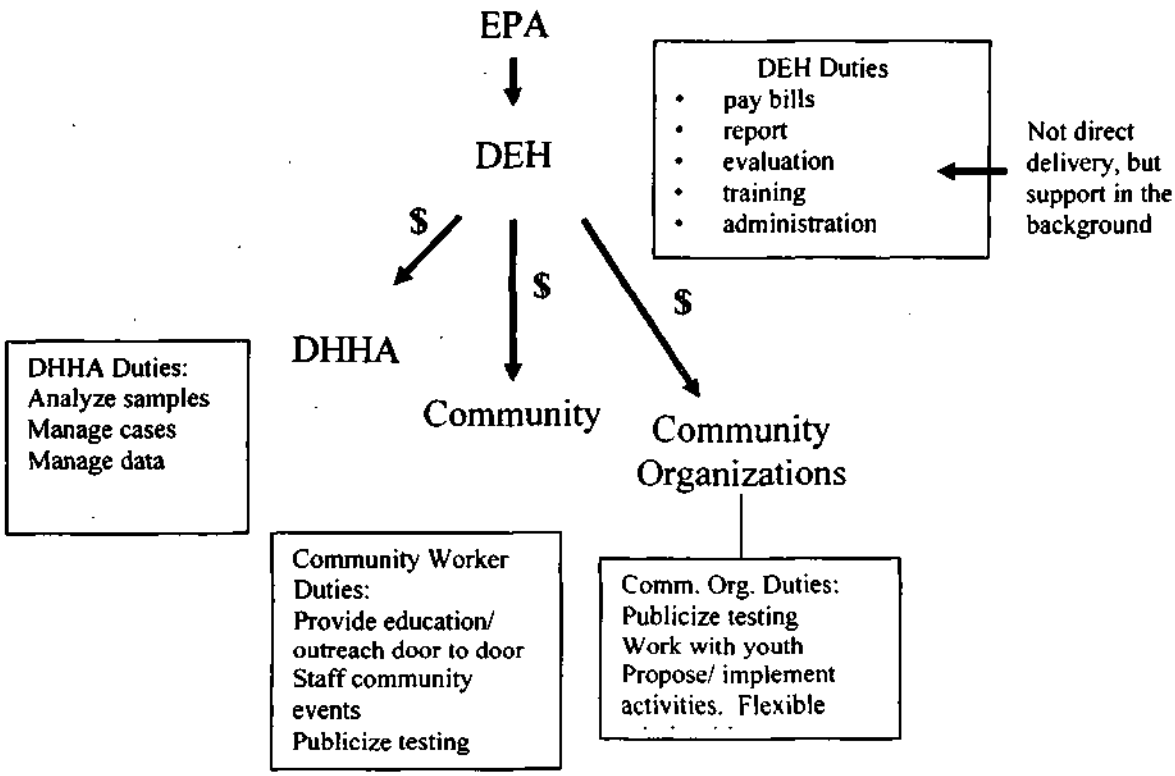
Minutes of VB/I-70 Workgroup and CEASE meeting
April 22, 2004

Attendees: Derek Boer, Kenneth Cotton, Lorraine Granado, Wendy Hawthorne, Victor Ketellaper, Rocio Perez, Ellen Salvador, Gloria A. Shearer, Jennifer Slavick, Akwe Starnes, Beverly Tafoya-Dominguez, Anthony Thomas, Celia VanDerLoop, Sunny Walker and Jim Weaver

After introductions and approval of the minutes, Celia VanDerLoop began with a discussion of EPA expectations. EPA is contracting with DEH to provide a community health program that is consistent with the Record of Decision and incorporates the community goals and intentions. The intention is to use community workers to deliver health education and outreach regarding lead and arsenic.

We discussed how existing community organizations could be incorporated into the plan. DEH anticipates its role to be related to administering the program, providing training, reporting, evaluation, and planning and organization. While DEH would do some community contacts such as arranging school visits or setting up a realtor meeting, DEH anticipates doing very little of the direct community interaction. Instead, this direct community interaction would be done through community health workers, hired, trained, and supervised by DEH.

Community organizations are recognized as bringing a number of strengths, in that they know the community, they are trusted by the community members, they will know of events, locations, and organizations where outreach may be appropriate, they have greater ability to utilize existing capacity within the community such as youth groups, and they bring community energy into the project. At the same time, Celia expressed concern regarding adding another layer of oversight between DEH and community workers, due to increasing overhead costs and increased complexity of organization, oversight, quality assurance, and evaluation. The group agreed that the promotoras that would be tasked with door-to-door outreach would be under the direction of DEH. The group also agreed that community organizations would be well suited to provide certain outreach activities, for example: flyering neighborhoods for particular events, conducting a school event, or planning and conducting outreach presentations at neighborhood events. We agreed that community organizations would be appropriate for these activities. Conceptually, the organizational relationship would involve DEH contracting with a community organization to implement agreed-upon work-plans. Community organizations would be encouraged to develop brief workplan proposals (1/2 to 1 page) which could be funded. See chart below:



Celia indicated that DEH intends to work with any neighborhood group who wants to be involved, but as with all participants in the program, quality work will still be required. Anthony Thomas stressed that if one neighborhood group is working on a small project (such as flyer distribution), it is best to give them the job for the whole neighborhood, vs. splitting it between groups which could lead to confusion.

On the role of youth, it was strongly noted that the youth must be well supervised in terms of the quality of their work and for their protection while working within the community. If youth were to be involved in door-to-door work the supervision would include being sure the message was consistent throughout each and every neighborhood. Given this is a multi-year project, it was also noted that one of the complications with youth is that they are often only able to be involved for one year. If they are paid stipends and the stipends stop, then they tend to drop out. Not paying stipends is the policy of one neighborhood who involves youth as a way of teaching them about community service.

Celia then shared meeting notes from the Steering Committee (see handout), indicating they have now sorted out which agency will be playing which roles in the biomonitoring process. As regards confidentiality and the signing of consent forms, it was noted that residents are not required to sign both forms at once (the first for blood testing and the

second for allowing the results to go to an agency who can provide services should the levels be elevated). There will be a second opportunity to sign the second form, at the time elevated results are reported (if there are any).

There was considerable discussion around the report's section on arsenic biomonitoring. Celia commented that this needs more thinking through in terms of effective arsenic screening questions that would reveal exposure potential. Several gave good suggestions on how to go about getting good information by being more informal in the questioning process and indicating that the behaviors that might be dangerous are things all children do (play in the dirt, occasionally eat some, etc.). Also, because younger children will be the ones brought in for lead testing, some thinking needs to be done on how to find out about and get older children tested if indicated. Beverly suggested that pregnant teens be a priority for the arsenic testing, then clarified that lead testing is important for this group as well. Jennifer clarified that for all elevated lead levels, arsenic testing will be offered.

It was decided to invite the biomonitoring committee to report at the next meeting of this group on May 6th.

It was discussed that the concern regarding in-home testing raised at an earlier meeting had been brought to EPA and discussed at a steering committee meeting. EPA has agreed to provide some in-home lead testing as a part of the CHP. The group thanked EPA for being willing to consider and incorporate this into the program. Relative to in-home lead testing, Wendy clarified that NDHC's intent in abatement would be to hire qualified people from the community. Victor indicated that there may be a way to get in-homes testing for lead where yards are not being replaced, if certain criteria are set (such as children or grandchildren are at risk) and this option is part of the Community Health Plan.

A question was raised about the importance of citywide education. Celia mentioned that has been considered and that this project can be used as a pilot project, which could then be transferred into a citywide education effort.

The group then returned to the careful consideration of materials to use in the education effort. Since this process is so time-consuming, Lorraine Granado and other group members suggested a separate meeting be scheduled to finish it:

Ellen Salvador announced that she has been reassigned to the Whittier community and will no longer be participating in the bi-weekly meetings. The group expressed their gratitude for her assistance and wishes her well in her new role.

Sunny requested that the building be opened ¼ to ½ hour early to allow for set up. Akwe who opens the building is not available on Mondays, so Lorraine graciously agreed to open the building at 8:45. We give a special thanks to both Ellen and Lorraine for hosting the meetings.

Attendees: Anthony Thomas, Beverly Tafoya-Dominguez, Celia Vanderloop, Derek Boer, Ellen Salvador, Gloria A. Shearer, Jennifer Slavick, Jim Weaver, Kenneth Cotton, Lorraine Granado, Marilyn Starnes (Akwe), Rocio Perez, Sunny Walker, Victor Ketellapper, and Wendy Hawthorne

April 22, 2004
VB I-70 Community Health Plan
Working Group Meeting – Cross Community Coalition
4400 Lincoln St, Denver, CO 80216

CONTACT LISTS
for meeting of

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See Appendix C for Educational Materials

1. Educational Materials

Meeting Notes
Subject: vb chp steering committee 4-19-04
Date:4-19-04
Attendees: Paul Melinkovich - DHHA, Jane Mitchell - CDPHE,
Gene Hook - DEH, Wendy Hawthorne - NDHC, Jennifer Slavick - EPA, Mishelle Macias - CDPHE, Victor Ketelapper – EPA, Chris Poulet – ATSDR

Confidentiality, consent forms, and access to data: Consent form –Mishelle Macias has routed a draft to her IRB person, and will distribute the current electronic to the steering committee. DEH will review and revise so it is more accessible to a low literacy audience. CDPHE will try to get the low literacy version translated - if unsuccessful, DEH can do. We agreed to use a two part form – the first part will give consent to be tested, the second part will give consent to provide confidential information on those with higher levels so follow-up services can be provided (information to conduct environmental investigations provided to DEH; information on those with higher levels to NDHC so that they can provide additional in-home lead paint testing, and cleaning kits.) Mishelle will e-mail consent form for everyone to look at. CDPHE's IRB person thought the form needs HIPPAA language added from DHHA. DHHA thought it didn't and would review to make sure.

Arsenic biomonitoring committee is recommending targeted testing for arsenic. The current plan is to ask screening questions when a family comes in for biomonitoring testing. Depending on the answers, the biomonitoring can be just lead, or both. We may need one consent form that addresses lead only, different form that gives consent for lead and arsenic testing.
DEH will do arsenic investigations for those identified as elevated. Jane will do the medical management. Difficulty is getting the retests physically done and getting that paid for. This issue was not resolved.
For arsenic, the Arsenic Biomonitoring committee is likely to recommend that all those volunteering to have biomonitoring be asked arsenic screening questions. Depending on results of screening Qs, arsenic testing of hair and urine would be recommended. Arsenic would be speciated for organic/inorganic. The arsenic screening levels are likely to be lower than those used in KAPHS in order to evaluate exposure rather than health effects. For the VB CHP, the arsenic biomonitoring committee will establish a different higher level that triggers medical management. DEH will brief community members at the next community meeting and offer a fuller presentation.

MOA/Contracts - COMIRB language in the existing draft needs to come out, as does the language regarding assurance of medical management. DHHA can provide services to own patients, can offer to provide services to others, but cannot assure that services are provided. DHHA can provide services to those who want to enroll in DHHA services at the level at which the family is willing to participate.

Leave reporting requirements the way they are in the MOA - reporting details will be worked out in steering committee over the summer. It could take several months to gain signatures to the MOA - we need to proceed.

In-home lead paint testing - community members had requested that some in-home lead paint testing and screening be provided. NDHC can provide limited amounts now and could likely provide more with funding. Victor thinks EPA could fund, depending on eligibility criteria (maybe certain homes with children.) This will be more likely as a part of the community health plan – it is not fundable as a part of the cleanup. NDHC will put together a proposal and DEH will see if funding could be passed through HANDS.

Involvement of community organizations - Discussion of roles of community workers, youth, DEH in outreach/ education. Existing community organizations know the community, are trusted, and already work w/youth. How can they be incorporated in the plan? DEH concern is to avoid another layer of reporting, overhead, and is concerned about being responsible for the quality and effectiveness of tasks not within their oversight. Suggested that community organizations act as another information delivery route. Examples - need flyers distributed announcing blood testing – could hire CO to have youth distribute; if we need info to neighborhood organizations + newsletter - go through CO. This will be discussed at the next community meeting.

Action Items:

Who Delivers	Messages	How Delivered	Audiences	Frequency
Promotoras	Lead is Bad	Door to door	families	Door to door 3/yr
	Get your kids, home, yard tested	Locations for presentations	Grandparents	others as scheduled by promotoas or DEH
	What you can do	Churches	New Homebuyers	
	Resources	Boticas		
	Sources of Poison	Clinics		
	You have the power	Outside schools		
	Simple info on home renovation	ESL classes		
		Events, fairs picnics		
		Preschools		
		Story Circles		
		Neighborhood Groups		
Youth	Same as promotoras	Science Classes	Children	As scheduled by DEH
		Env.Clubs	Families	School classes 1/yr each class
		Churches	Grandparents	Events - as occurrred
		Events	Youth	comm. mtgs as they occur and scheduled
		Fairs		
		Picnics		
		Neighborhhod groups		
		backup for door to door later on, depending on skills, safety, assistance needed		
DEH	same as promotoras but as backup QA	Same venues as above, but as oversight	same	
	safe renovation - more complex info	contractor mtgs	contractors/inspectors	groups annually
	importance that info gets out	training sessions	real estates	Trng every two weeks
	process - tracking and evaluation	schools	principals/teachers	
	How to train	training sessions	promotoras & training	
	Inspection/Regs/Notification	realtor mtgs	landlords	
		Landlord		
Community Organizations				
Trainers				

Attendees: Anthony Thomas, Beverly Tafoya-Dominguez, Gloria A. Shearer, Jennifer Slavick, Kenneth Cotton, Lorraine Granado, Pat Courtney, Rocio Perez, and Sunny Walker

May 3, 2004
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4400 Lincoln St, Denver, CO 80216

CONTACT LISTS

for meeting of

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for meeting of

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4400 Lincoln St, Denver, CO 80216

See Appendix C for Educational Materials

1. Educational Materials

VB/I-70 COMMUNITY HEALTH PLAN MEETING

May 6, 2004 at 9:00a.m.

AGENDA

I. **Introductions**

II. **Approval of the minutes***

III. **Agenda review**

IV. **Summary of what we know so far**
   a. Role of community and community workers
   b. Delivery mechanisms
   c. Messages
   d. Materials to use
   e. 1st visit model

V. **Reporting**

VI. **Feedback to community**

VII. **Evaluation**

***Note: The bio-monitoring committee representative(s) were not able to present today. Their report will be rescheduled for the following meeting.**

Minutes for the CEASE-VB/I-70 Work Group CHP Planning Meeting 5/6/2004

Present: Anthony Thomas, Beverly Tafoya-Dominguez, Celia Vanderloop, Glenn Tucker, Gloria A. Shearer, Jennifer Slavick, Jim Weaver, Kenneth Cotton, Marilyn Starnes (Akwe), Michael Kosnett, Pat Courtney, Rocio Perez, Jim Weaver

DEH will make initial contact with organizations; Promotoras will contact community regarding community events. DEH expects organizations to assist in staffing table & providing materials for events. Community organizations will be required to write-up ½ page report/proposal regarding community event and cost involved.

Anthony Thomas – would like for DEH to go to community groups and explain to community what the findings of the CHP plan are. Next meeting of Clayton Civic Association is June 10, 2004 at 6:00.

Possible events that we can staff a booth at are:

1. City Park - Akwe Starnes
2. Juneteenth Event – Kenneth Cotton

Things we need to do when informing community of dangers

1. when remodeling you need to
2. place emphasis on child only… not family – Anthony Thomas
3. Home repairs …regarding paint – Dr. Kosnett

Make materials available to community & contact information at

1. Valdez Perry-Swansea
2. Fort Warren Library
3. Provide a listing of numbers were DEH can be contacted

Community outreach

Promotoras to ask if soil has been tested, if not then given them Pat Courtney's at EPA to schedule and or get information regarding soil testing. And create a website that addresses community health issues.

Celia – Timeline of Project

Yr. 1

Promotoras

1. trained
2. making visits
3. school events

Child testing--approximately 4, 000 homes

1. basic information re: yard clean-up
2. lead based-paint
3. remodeling

Yr. 2

More detailed information and more in depth visit

1. same as yr. 1
2. what needs to be retired/focuses
3. what works/doesn't work
4. find new residents & address them
5. *evaluate*
6. refine
7. innovate

Yr. 3

More detailed information and more in depth visit

1. community organizing events
2. *promoting biological testing*
3. towards end of yr. 1 school events
4. end of program final evaluation
5. city to implement CHP program across city
6. what's good and what's bad

Childhood lead poison testing

1. 5-10 levels for 1st yr.
2. publicize though clinics/doctor visits
3. if child is at high risk (lead) test for arsenic

Testing process

1. *goal is to maintain services after EPA's funding runs out and transition to a new program*
2. Use EPA funds to generate forms and educational materials
3. trace homes – who have and have not been contacted
4. DHHA will track which child has been tested

Reporting

Monthly reports will go out to EPA with primarily numerical information. For example: July 2004 report will say DEH:

1. hired 3 promotoras
2. distributed 17 notebooks
3. distributed 398 fact sheets
4. visited x number of people
5. visited 2 community clinics
6. 292 children were tested
7. next months plan
    a. what got done
    b. what need to get done

Quarterly reports to summarize monthly reports and provide details of activities and evaluation results.

DEH staff will be available to the respective neighborhood organizations to discuss CHP implementation on a quarterly basis or upon request. Community and staff can discuss what's happened, works, doesn't work, or needs to change. Community Health Workers (Promotoras) will be expected to attend all regularly scheduled meetings of their respective neighborhood organization meetings.

Summaries

1. 1 page narrative with phone numbers to be handed out with visits and placed in libraries describing what will be happening for the next 3 months
2. mailing list from EPA

Akwe: The CHP evaluation should not be the final evaluation. The EPA's final evaluation should demonstrate the effectiveness of the remedy and true environmental changes that have occurred to make the area safe.

Other organizations that can be involved

1. HUD
2. Brothers Development
3. Sun Power

See lead based-paint – need to report
Victor to report on status of testing for exterior lead based-paint

Attendees: Anthony Thomas, Beverly Tafoya-Dominguez, Celia Vanderloop, Glenn Tucker, Gloria A. Shearer, Jennifer Slavick, Jim Weaver, Kenneth Cotton, Marilyn Starnes (Akwe), Michael Kosnett, Pat Courtney, and Rocio Perez

May 6, 2004
VB I-70 Community Health Plan
Working Group Meeting – Cross Community Coalition
4400 Lincoln St, Denver, CO 80216

CONTACT LISTS
for meeting of

May 6, 2004
VB I-70 Community Health Plan
Working Group Meeting – Cross Community Coalition
4400 Lincoln St, Denver, CO 80216

See Appendix B-2 for Copies of Contact Lists

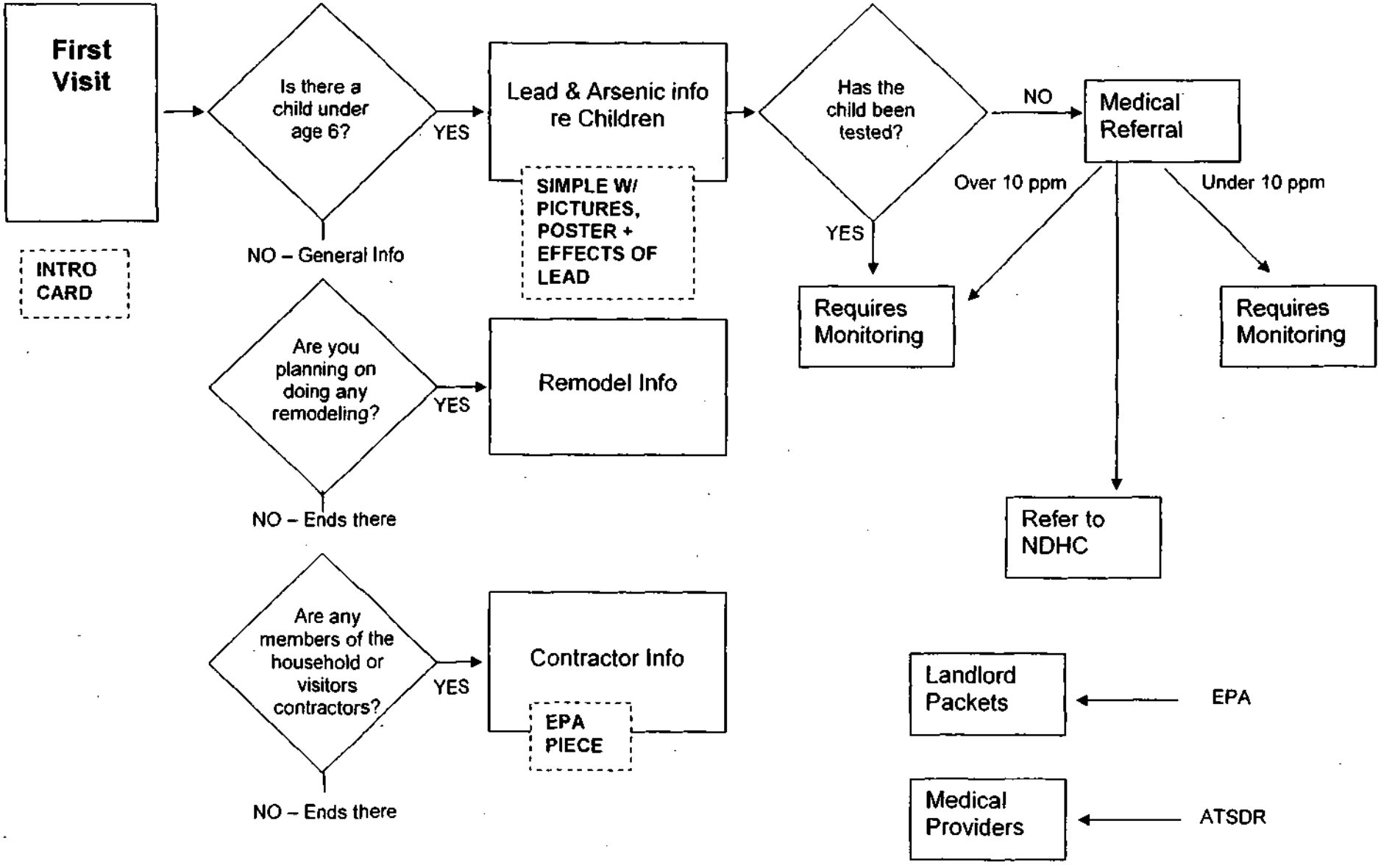
1. VB I-70 Working Group and Cease Community Meeting Health Planning Meeting Contacts

2. VB I-70 Working Group and Cease Community Meeting Health Planning Meeting Quarterly Contacts

For the community meetings, the people identified in the VB I-70 Working Group and CEASE Community Health Planning Meeting Contacts were called and reminded of meetings scheduled for each meeting. Individuals on VB I-70 Working Group and CEASE Community Health Planning Meeting Quarterly Contacts were called on a quarterly basis, invited and updated on the status of the meetings.

First Visit INFORMATION:

1. What are lead and arsenic poisoning?
   How do you get them?
   What are their effects on children?
2. How do you protect your household?



VB-I70 Health Education Plan
Delivery Mechanisms

Who Delivers	Messages	How Delivered	Audiences	Frequency
Promotoras	Lead is Bad	Door to door	Families	Door to door 3/yr
	Get your kids, home, yard tested	Locations for presentations	Grandparents	others as scheduled by promotoas or DEH
	What you can do	Churches	New home buyers	
	Resources	Boticas		
	Sources of Poison	Clinics		
	You have the power	Out side schools		
	Simple info on home renovation	ESL classes		
		Events, fairs, picnics		
		Preschools		
		Story Circles		
		Neighborhood Groups		
Youth	Same as promotoras	Science Classes	Children/Youth	As scheduled by DEH
		Env.Clubs	Children/Youth	School classes 1/yr each class
		Churches	Grandparents and Families	Events - as occur
		Events		comm. mtgs as they occur and scheduled
		Fairs		
		Picnics		
		Neighborhhod groups		

		backup for door-to-door later on, depending on skills, safety, assistance needed		
Who Delivers	**Messages**	**How Delivered**	**Audiences**	**Frequency**
DEH	same as promotoras but as backup QA	Same venues as above, but as oversight	same	
	safe renovation - more complex info	contractor mtgs	contractors/inspectors	groups annually
	importance that info gets out	training sessions	real estates	Trng every two weeks
	process - tracking and evaluation	schools	principals/teachers	
	How to train	training sessions	promotoras & training	
	Inspection, Regs and Notification	realtor mtgs	landlords	
		Landlord		
Community Organizations	Lead is Bad	Science Classes	Children/Youth	Agencies Decide on event and submit mini-proposals to DEH
	Get your kids, home, yard tested	Env.Clubs	Grandparents and Families	
	What you can do	Churches		
	Resources	Events		
	Sources of Poison	Fairs		
	You have the power	Picnics		
	Simple info on home renovation	Neighborhhod groups		

Who Delivers	Messages	How Delivered	Audiences	Frequency
Promotoras	Lead is Bad	Door to door	families	Door to door 3/yr
	Get your kids, home, yard tested	Locations for presentations	Grandparents	others as scheduled by promotoras or DEH
	What you can do	Churches	New Homebuyers	
	Resources	Boticas		
	Sources of Poison	Clinics		
	You have the power	Outside schools		
	Simple info on home renovation	ESL classes		
		Events, fairs picnics		
		Preschools		
		Story Circles		
		Neighborhood Groups		
Youth	Same as promotoras	Science Classes	Children	As scheduled by DEH
		Env.Clubs	Families	School classes 1/yr each class
		Churches	Grandparents	Events - as occurrred
		Events	Youth	comm. mtgs as they occur and scheduled
		Fairs		
		Picnics		
		Neighborhhod groups		
		backup for door to door later on, depending on skills, safety, assistance needed		
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	safe renovation - more complex info	contractor mtgs	contractors/inspectors	groups annually
	importance that info gets out	training sessions	real estates	Trng every two weeks
	process - tracking and evaluation	schools	principals/teachers	
	How to train	training sessions	promotoras & training	
	Inspection/Regs/Notification	realtor mtgs	landlords	
		Landlord		
Community Organizations	same as promotoras, but as agreed to as a part of work agreements	venues as agreed to in work agreements	audiences as agreed to in work agreements	as defined in work agreements
		flyers where appropriate		
Trainers				

Working Group Meeting
Brainstorm
3/25/2004

Renovation

Renovate homes safely

Keep kids away from loose or chipping paint

Wash hands and face after playing outside (kids and adults)

Safe home remodeling

Replace or paint over chipped paint on all surface

Steps to take

Home cleaning (windowsills and floors)
If adults/kids work in yards wash their clothing when they come in

Don't let small children play on the porch (old homes)

Don't let your kids play in dirt

Spray surfaces to be cleaned with water (to reduce dust)

Good hygiene prevents lead poisoning

Good nutrition helps prevent lead poisoning

Hygiene

How to protect yourself/kids
Good nutrition

Wash hands and face and wipe feet when kids come in

Don't let kid eat dirt or paint

Don't let your children eat dirt - and why

Wash window sills weekly

Resources

Real specific information on the help available

Soil removal is available

Attend community meetings to learn more about lead and arsenic

These are the resources available to reduce exposure to lead

Sources of poisons

Keys contain lead.
Don't lead kids play with keys

Don't use cookware or pottery with lead based glaze

Multiple forms: lead paint, soil, pottery, etc

Ararcon and Greta are poison
Lead is in our neighborhood

Unexpected lead sources

Kid and testing

Have children under 6 yrs. tested for Pb based paint

Get your children tested

Follow up for elevated blood lead levels

Test children for exposure

Your health and your family's health may be at risk. Come in for a screening.

Test child

Get your kids tested

Home testing

Have you tested your family and house for lead lately? Now you can.

Test home and soil

If you have an older house, test it for lead paint

Lead and arsenic are bad

Lead poisoning...Still a problem

Lead-free is the way to be

Lead paint hurts kids for life!

Pb education for kids, parents

Effects of Pb on kids

Lead hurts kids

Lead and Arsenic are dangerous

You have the power

You can take actions to protect your kids

These are the steps I can take to reduce my exposure

Other

Culturally sensitive delivery

In the process of protecting my children from lead hazards by...

1. Reminding them to wash their hands before they eat
I know nothing about this (Un-informed)

I have not done it yet (Thinking)

I've done it once or twice (Starting)

I'm doing it more often (Really Trying)

I'm doing it often (Action)

I'm doing it 3+ times a day (Succeeding)

2. Reminding them to wash their hands before they sleep
I know nothing about this (Un-informed)

I have not done it yet (Thinking)

I've done it once or twice (Starting)

I'm doing it more often (Really Trying)

I'm doing it often (Action)

I'm doing it 2+ times a day (Succeeding)

3. Washing the window sills and the children's toys once a week

the window sill

I know nothing about this (Un-informed)

I have not done it yet (Thinking)

I've done it once or twice (Starting)

I'm doing it more often (Really Trying)

I'm doing it often (Action)

I'm doing it 1+ times a week (Succeeding)

In the process of protecting my children from lead hazards by...

4. Taking them to the doctor for a blood lead test

I know nothing about this (Uninformed)

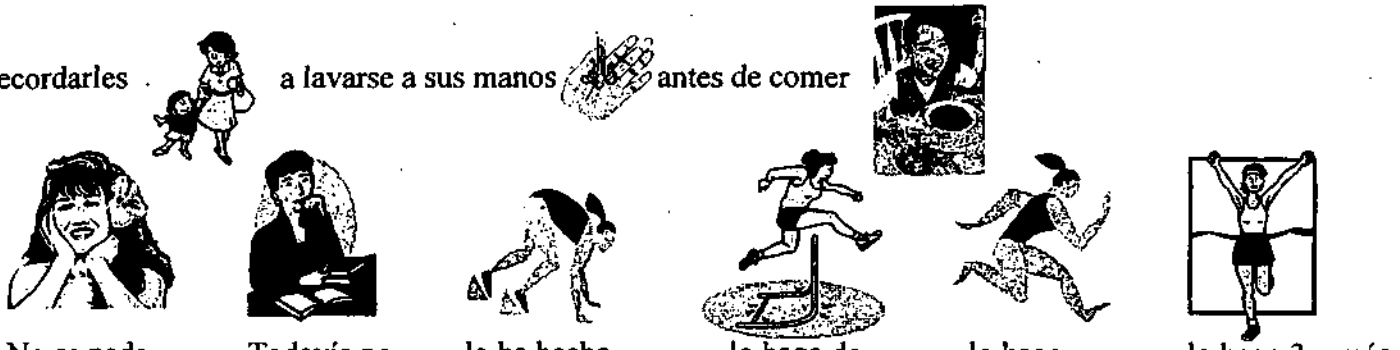
I have not done it yet (Thinking)

I've done it with my young children (Action)

I'll do it with all my babies (Succeeding)

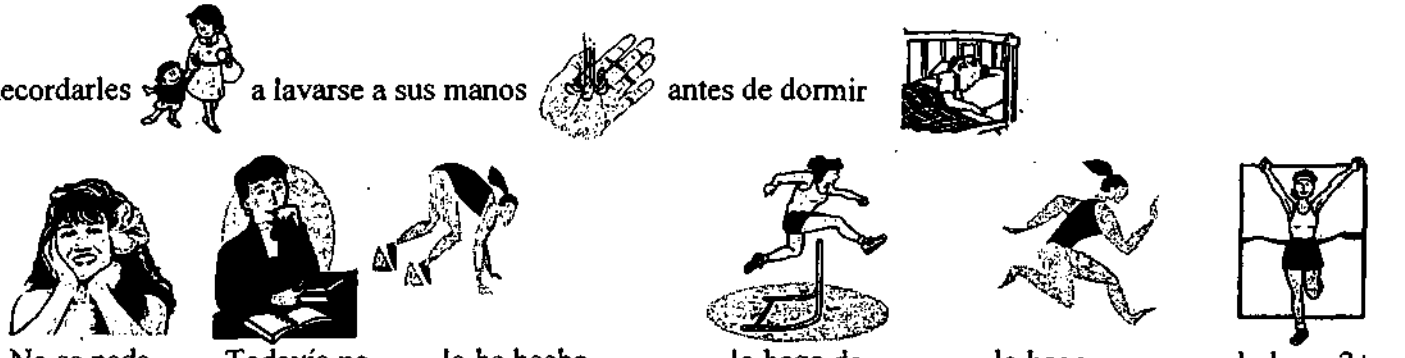
En el proceso de proteger a mis niño(a)s contra el plomo por medio de

1. Recordarles a lavarse a sus manos antes de comer



No se nada de esto (Desinformada)	Todavía no hago nada (Pensándolo)	lo he hecho uno o dos veces (Empezando)	lo hago de vez en cuando (Tratando)	lo hago a menudo (Avanzando)	lo hago 3 o más veces al día (Logrando)

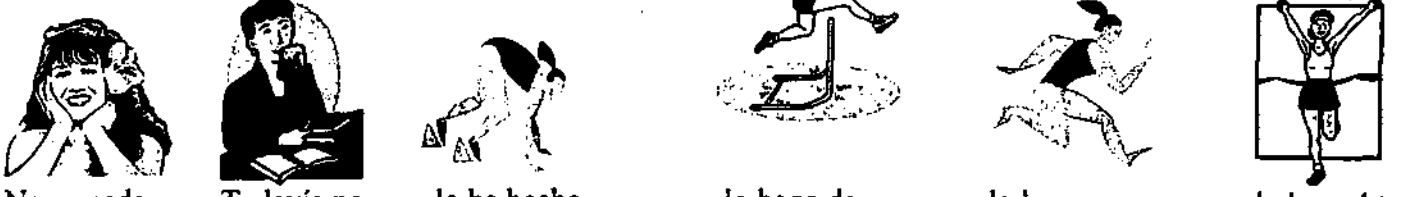
2. Recordarles a lavarse a sus manos antes de dormir



No se nada de esto (Desinformada)	Todavía no hago nada (Pensándolo)	lo he hecho uno o dos veces (Empezando)	lo hago de vez en cuando (Tratando)	lo hago a menudo (Avanzando)	lo hago 2+ veces al día (Logrando)

3. Lavar a los marcos de las ventanas y a los juguetes de los niños cada semana

el marco



No se nada de esto (Desinformada)	Todavía no hago nada (Pensándolo)	lo he hecho uno o dos veces (Empezando)	lo hago de vez en cuando (Tratando)	lo hago regularmente (Avanzando)	lo hago 1+ veces por semana (Logrando)

En el proceso de proteger a mis niño(a)s contra el plomo por medio de

4. Llevarles para una prueba de plomo

No se nada de esto (Des-informada)

Todavía no hago nada (Pensándolo)

lo he hecho con uno o más de mis niño(a)s (Empezando)

lo haré con todos mis infantes (Logrando)

MATERIALS REVIEW

Title of Item	In General Liked It	Readability Level	Clarity of Message	Good Layout	Good Graphics	Contains Some of Our Message	Culturally Appropriate	Value/How Use
1. General information brochures, flyers, packets,								
a. You Can! Prevent Lead Poisoning! Here's How	**Use as a checklist. Very good for this.**							
b. El Programa de la Prevención de Envenenamiento por Plomo de Colorado	X	EASY	NOTE: the details on these first four (a-d) became irrelevant as group became more clear about what they liked and what they wanted. However, the info appears at the end of the chart. **Useable pieces are highlighted in LIGHT BLUE.**					
c. Cómo proteger su salud/How to Protect your Health	**X**	**VERY EASY**	**Change to legal size sheet, adding a column with contact info. Add window sills illustration. To handwashing, at end add "and before eating.:**					
d. Fact Sheet: Some Facts About Soil Sampling in the Neighborhood		9TH GRADE?	**ONLY THE PICTURE PAGES SEE SPECIFIC RECOMMENDATIONS**			YES		Weekly folders & posters for schools
e. LA INTOXICACIÓN CON PLOMO EN LOS NIÑOS	X	type font too small	good content + check list; needs good context & better stats	X	X	X	different vocabulary	Pediatrician's office - has all info, ecxplain, use as needed
f. what every parent should know about LEAD LEVELS IN CHILDREN	mixed review	needs work!	?		X	P. 7, 13	NOT	
g. Too bad the early warning signs of lead poisoning aren't this obvious/Lástima que las primeras señales del envenenamiento por plomo no sean tan claras	**X**	**X**	**X**	**X**	**X had discussion re tape, now ok with it**	**X**	**X**	**FOR ALL HOUSEHOLDS - primary piece - value is simple and readable**
h. (EPA) Lead Poisoning And Your Children	**Use as a poster only. Really like it for that purpose. Needs correct contact info (local) -- Spanish is available.**							
i. Is your home haunted by lead paint?	**Use info, but redo without Halloween theme & make a bookmark for mass distribution (schools, libraries...)**							
j. Protect your child from lead poisoning	© issue?	too high						
k. Protect Your Family From Lead In Your Home/Proteja a Su Familia en Contra del Plomo en su Casa					X	**Effects of lead -- doesn't appear anywhere else -- very important, also include infor from 3c, 3d, 3e**		**Create a special piece from this information - 1st visit use -- rest as aditional info and/or for training**

l. What everyone should know about LEAD POISONING	X	language issue				Check for consistent message	**Spanish available**	**Could be an additional info piece**
m. ASTDR additional pictures 1-page color			**Simple pages for additional visits - also for schools, school nurses**					
n. NEW PIECE: Introduction card	**Simple piece that has persons name and organization and why they are there – with full contact info**							
2. Home remodeling information								
a. Renovating your home safely								
b. Reducción de lost riesgos de contaminación por plomo cuando remodela su casa								
c. Lead in your home: a parent's reference guide								
3. Specific information about lead and arsenic								
a. Datos sobre el plomo y arsénico en el suelo residencial (E/S) plus more in English								
b. Eating Vegetables from Your Garden... (E/S)	**An important piece but simplify (remove first paragraph & put at bottom: If your soil has not been tested call now! xxx-xxx-xxx; also change contact info)**							
c. Lead in Home Remedies	**Very important for these neighborhoods. Use on first visit!**							
d. Otros Orígenes de Plomo	**Merge these two with English on one side, Spanish on the other, use for training & later visits**							
e. Possible Sources of Lead								
4. Blood lead testing								
a. Child Lead Poisoning Is Preventable/E. envenenamiento infantil con plomo se puede prevenir	**Need something for 1st visit as the under 6 handout – this can be the basis of something new or different, or simply be edited.**							
b. ¿Qué significan los valores de plomo en la sangre de su niño?/What does you child's blood lead level mean?	Training use, after corrected							

5. Nutrition								
a. Alimentos que Combaten El Envenenamiento con Plomo	**Rework and use -- no fighter. Change color scheme, use a different, more appropriate Spanish menu**							
b. Lead Poisoning Nutrition and Children: what you should know/El envenenamiento con plomo la nutritición y los niños: lo que usted debe saber								
c. Lead and a Healthy Diet								
d. Combata el Envenenamiento con Plomo con una dieta saludable	**Great recipes -- general handout SECOND visit; use as is, available in English & Spanish**							
e. Iron/Calcium/Vitamin C								
6. For Children								
a. Let's Learn About Lead Poisoning	**for homes with children, SECOND visit; and for preschool/day care sites**							
7. For Landlords								
a. The Lead-Based Paint Pre-Renovation Education Rule	**Combine these two pieces and send them to all landlords. Also use with contractors.**							
b. Lead Paint Can Poison: Are Your Tenants at Risk?								
8. Home Investigation								
a. Testing Your Home for Lead in Paint, Dust, and Soil	**For Northeast Denver Housing Center (NDHC)**							
9. Temporary Measures to Reduce Lead Hazards								
a. Lead Hazards & the Remova: of Lead-based Paint	**For remodel packet; homes with contractors, including guests; paint stores**							
b. Proteja a Sus Hijos del Plomo: Como Limpiar Las Ventanas Correctamente/Keep Your Children Safe From Lead! How to Clean Your Windows the Right Way	**Use only for homes with children under 6 and adapt to Denver**							
c. Temporarily Reducing Lead Paint Hasards by Cleaning	**Use if home or child is positive for lead**							

10. Provider Education								
a. Colorado's Lead Poisoning Prevention Program	**All the responsibility of ATSDR**							
b. Childhood Lead Poisoning in Colorado								
11. Lead Hazards from Work Sites								
a. New piece ATSDR may have this	**Due to the hazard of children picking up lead from clothing and hands of people who work with lead.**							
General items details from above:	**In General Liked It**	**Readability Level**	**Clarity of Message**	**Good Layout**	**Good Graphics**	**Contains Some of Our Message**	**Culturally Appropriate**	**Value/How Use**
a. You Can! Prevent Lead Poisoning! Here's How	X	OK	? Needs better title; good check list	Cluttered	X	X - some key things	X	
b. El Programa de la Prevención de Envenenamiento por Plomo de Colorado	X	EASY	1978, not 1940; --> lead glaze - U.S.	X	X	X	needs notice: English/ Spanish on other side	
c. Cómo proteger su salud/How to Protect your Health	X	VERY EASY	X - add window sills	X	X	X		
d. Fact Sheet: Some Facts About Soil Sampling in the Neighborhood	X in use now, box of info with #s	9TH GRADE?	X - check some numbers, old	X	NONE - map has unhelpful placement	YES	???	Weekly folders & posters for schools
OTHER COMMENTS:								
Important for ALL double sided two-language pieces – need notice: English/ Spanish on other side								
In Spanish: INTOXICACIÓN is better than envenenamiento to refer to poisoning OR use both words								

VB/I-70 Work Group and CEASE
COMMUNITY HEALTH PLAN
MEETING

May 20, 2004 at 9:00a.m.

AGENDA

I. **Introductions**

II. **Approval of the minutes**

III. **Bio-monitoring committee report**

IV. **Draft plan for community review**

V. **Promotora Tool Kit**

VI. **Next Steps**

Minutes of the VB I-70 Working Group Meeting and CEASE Meeting 5/20/2004

Attendees: Kenneth Cotton, Pat Courtney, Pat Ennis, Lorraine Granado, Gene Hook, Jane Mitchell, Rocio Perez, Chris Poulet, Gloria A. Shearer, Marilyn Starnes (Akwe), Beverly Tafoya-Dominguez, Glenn Tucker, Celia Vanderloop, Kiera Zapien

Minutes were approved as written.

Lorraine requested that EPA sponsor an edition of the neighborhood newsletter about the soil remediation process, with a special focus on why some yards are being remediated and some are not.

Jane Mitchell reported on behalf of the Bio-monitoring committee. The sub-committee concluded that the CHP staff should:

- target children ages 1-6 years of age
- offer lead test to all young children
- conduct a universal outreach
- screen children to determine if there is a high risk for arsenic poisoning at the time the blood lead test is being done
- children who have had elevated blood lead or elevated arsenic levels in the past will be retested if at all possible

The bio-monitoring committee proposes to create a short checklist that can be used to screen for high risk children and may include:

- has the child been seen eating dirt
- does the child play outside
- do the other children have elevated blood lead levels and/or arsenic

Lorraine Granado pointed out that the staff need to ask the questions in a sensitive manner. Most parents will say no, "my child doesn't eat dirt" but may say "Well I have seen him/her put dirt in his/her mouth when she's outside playing or yeah, she picks up her pacifier and puts it right back in her mouth when it falls in the dirt" if the question is phrased correctly.

- The bio-monitoring committee recommends testing children who are at high risk for lead and/or arsenic poisoning. In addition, there should be several neighborhood testing sites in each neighborhood. CDPHE will coordinate with NDHC to select testing sites and times with input from communities. DEH will collect information about recommended neighborhood testing sites.

EPA soil database should be available at the testing site to identify soil levels at childrens' homes when children come in for testing. In the event that the soil has not been sampled for lead and arsenic, a recommendation should be made to test the child for both lead and arsenic.

Testing procedures:

- Lead: finger stick, blood collected on filter paper is method currently used by CDPHE. Method accepted by CDC.
- Arsenic: both hair and urine will be tested if at all possible. Hair samples should be taken at the neighborhood testing site when the child is first screened and determined to be at high risk. If a urine sample cannot be collected on site this could cause problems. A discussion ensued about how best to collect urine samples.

Lorraine Granado stated that testing and follow-up will be affected because DHHA's Globeville and Clayton clinics are closed. Follow up testing for elevated blood lead levels and arsenic will be through DHHA. Lorraine recommended that the Cross Community Coalition to be used as a neighborhood testing site.

Outreach

Celia Vanderloop suggested changing the name from neighborhood clinic to neighborhood testing sites, and Beverly Tafoya-Dominguez suggested Neighborhood Testing Event. The main outreach for testing will be at the neighborhood level with ads in local newsletters, flyers, ads or PSA's in local newspapers (Eng/Span), television and radio stations, etc. CDPHE & NDHC will select the location, date, and time of the lead and arsenic testing. DEH will assist in conducting the outreach and publicizing the event through the Promotoras and the information that is already going out to the neighborhoods. Neighborhood organizations can contract with DEH to receive payment for outreach activities.

Testing Results

Blood samples will be sent via DHHA labs. Samples can be batched and sent to the Medtox labs and Kiera Zapien (DHHA) will track the results, assist with QA/QC, arrange for follow-up through DHHA or refer family to alternate facility if for some reason DHHA cannot continue care, and develop a data base so as to determine areas of high lead poisoning incidence. Kiera reported that most labs have been reporting all lead test results to CDPHE, but that the new mandatory reporting law will help to ensure that all lead test results are reported to CDPHE. Urine and hair samples will be sent by CDPHE to CTQ lab in Quebec. Results will be sent to CDPHE who will provide tracking, reporting, assist with QA/QC and evaluation.

Lorraine Granado suggested that hair and urine samples for high risk exposure would be most beneficial if they are targeted to a smaller subset of children. She suggested that hair testing might give a more accurate result if a child has been exposed to arsenic versus urine testing, which is not as detailed and might not give an accurate reading. Another suggestion was to do what the Kids at Play study did and use pediatric bags, which in turn may have its pros and cons. Requiring that children must be potty trained may eliminate most children ages 2-3 years old. Testing from community to community may vary depending on what the individual community chooses to do.

Celia Vanderloop suggested that parents can be sent home with the questionnaire and test kit and return it the next day to the clinic.

Gloria Shaffer suggested that we might want to send someone back to pick up the sample.

Jane Mitchell from the CDPHE said that they do not have enough staff to pick up individual samples and was concerned with the logistics and how time, storage and transportation work.

Gene Hook suggested that families with high risk children be given sample collection bags at the clinic during selected dates and expect people to show on the next day to return bags.

Jane would prefer that to testing be held at 10-20 neighborhood sites, level of risk be determined, families with children at high risk be given sample collection kits at that time and ask families to take the urine samples to any of the other neighborhood testing events occurring in the near future. Families would have to collect, refrigerate and deliver the samples.

Lorraine Granado – getting people to attend once maybe possible, but expecting them to attend twice may not be possible because most people are working. It is important to take into consideration what time of the day and what day is selected for testing; as this may prevent working people from being present at the testing site. Saturday would be the best day.

Celia Vanderloop—it may be difficult for a resident to remember to come to neighborhood site because it may not be one of their priorities.

Lorraine Granado suggested that staff should instruct parents to put sample collection bag on children and then have them drop it of at the designated location.

A group member suggested that Promotoras should already have been through a neighborhood and are familiar with where children 2-3 years old live; they could revisit those homes and drop off a test bag and teach them the procedure and let them know where to deliver the samples.

Lorraine suggested that the Promotoras inform the families about what is going to take place regarding the testing.

Gene Hook suggested that the Promotoras do the initial screening and follow the flow chart.

Kenneth Cotton – wanted to know what the washout rate of arsenic was, Jane responded that:

- Urinary arsenic measures exposures that have taken place shortly before the urine sample was taken. The half life of arsenic is 3 days; after 3 days concentration reduced by about half.
- Hair samples can determine long periods of exposure, but may not catch peak exposures or short term high level exposures of concern. Hair samples are also susceptible to outside contamination.
- Each method tests for a different type of exposure.

Jane – other concerns

- Hair maybe externally contaminated. The external contamination may not reflect the actual level of exposure to arsenic.

Jane – both hair and urine samples will be requested. The promotoras could deliver a kit to the families with high risk children and inform them about the next neighborhood testing site, date and time so the parents can deliver it.

Gloria – you might want to ask neighbors, grandparents and daycares about promoting testing.

Gene – we need a flyer that states the next three testing dates before you get started telling people about collecting samples.

Ken – discussed the possibility of finding arsenic and lead,

Jane referred to the Kids At Play study were the findings showed:

- it is uncommon to find elevated levels of arsenic in children in the area, no arsenic was found in conjunction with elevated blood lead levels
- there were some cases of arsenic exposure, one case of urinary arsenic levels above 30 was mentioned
- while hair samples measure exposure over time it may not capture short term exposures of concern.

Testing Concerns:

Ken – if the study and testing is conducted over the winter versus summer then it would not give and accurate reading.

Gene - this is why the most recent hair growth is collected, last month's hair closest to the scalp.

Celia — foods such as wine and shellfish have organic arsenic that could affect testing.

Lorraine – Hispanic families consume a lot of shellfish. Will it result in a more accurate arsenic test to ask the person being tested not to consume those items that may contain dietary arsenic until the test is completed? Also, Promotoras will need to leave information about the testing procedure and when the next clinic will be held.

Jane discussed using Non- dietary Arsenic Testing which uses a method that removes dietary arsenic from the sample. This may save money on initial arsenic testing. If positive, then a second fully speciated test can be conducted. She and her staff are not anticipating that there will be a lot of children that will have elevated arsenic levels.

Gene – the city will conduct an investigation on children with elevated arsenic levels. It is already conducting lead investigations in homes where children with elevated lead levels reside and city staff can also investigate homes for non-soil sources of arsenic. DEH has information on soil levels and can easily access that information.

Decision: Arsenic poisoning risk to be determined based on the risk questionnaire to be developed by the biomonitoring committee. If the child is determined to be at high risk and parent/guardian consents, a hair sample will be taken at the neighborhood testing site when the child is tested for lead. The promotoras will be alerted about the high risk status of the child in the neighborhood and will be asked to deliver the sample collection kit and review the instructions for collecting the samples with the parent/guardian a few days before the next neighborhood testing event. They will ask the family to collect the sample the day of the event, refrigerate it if needed and deliver it to the testing site during the event. Alternately, the promotoras will encourage the family to get the child tested, alert the staff and then continue with the above protocol.

Draft Community Health Plan Comments:
Lorraine Granado expressed her opposition to using the written evaluation tool included in the draft plan. She felt that residents would get angry being asked the same questions repeatedly. DEH staff acknowledged her concerns and clarified that this tool is only part of the evaluation process and the questions asked would be part of a supportive educational conversation and not a questionnaire. DEH staff will write and distribute a more comprehensive explanation of the evaluation mechanism.

VB/I-70 Soil Remediation Project Comments:
A complaint from a resident on 50th and Milwaukee has been received through Lorraine Granado. Apparently the soil remediation has started, but was not finished even though others in the neighborhood have had the whole process completed. Pat Courtney is to check on the status of the remediation effort. The community is asking why some people get their yards cleaned up and others don't.

Everyone needs to do their part in explaining why some yards are affected and others are not. Those who have additional questions can call Pat Courtney at (303) 312-6631. Spanish speakers can call the EPA VB/I-70 Spanish language hotline at (303) 312-6384.

Attendees: Beverly Tafoya-Dominguez, Celia Vanderloop, Chris Poulet, Gene Hook, Glenn Tucker, Gloria A. Shearer, Jane Mitchell, Kiera Zapien, Kenneth Cotton, Lorraine Granado, Marilyn Starnes (Akwe), Pat Courtney, Patricia Ennis, and Rocio Perez

May 20, 2004
VB I-70 Community Health Plan
Working Group Meeting – Cross Community Coalition
4400 Lincoln St, Denver, CO 80216

CONTACT LISTS
for meeting of

May 20, 2004
VB I-70 Community Health Plan
Working Group Meeting – Cross Community Coalition
4400 Lincoln St, Denver, CO 80216

See Appendix B-2 for Copies of Contact Lists

1. VB I-70 Working Group and Cease Community Meeting Health Planning Meeting Contacts

2. VB I-70 Working Group and Cease Community Meeting Health Planning Meeting Quarterly Contacts

For the community meetings, the people identified in the VB I-70 Working Group and CEASE Community Health Planning Meeting Contacts were called and reminded of meetings scheduled for each meeting. Individuals on VB I-70 Working Group and CEASE Community Health Planning Meeting Quarterly Contacts were called on a quarterly basis, invited and updated on the status of the meetings.

MEETING HANDOUTS

for meeting of

May 20, 2004
VB I-70 Community Health Plan
Working Group Meeting – Cross Community Coalition
4400 Lincoln St, Denver, CO 80216

See Appendix B-3 for Copies of Listed Handout Materials

1. Community Health Education and Outreach Plan

2. Supportive Evaluation Guidelines - Evaluation Tool

AGENDA
VB/I-70 Working Group and CEASE Meeting

June 3, 2004

I. **Introductions**

II. **Approval of the minutes**

III. **Mark Anderson, M.D. will discuss the Pediatric Environmental Health Specialty Unit (PESHU)**

IV. **Questions for Dr. Anderson**

V. **Input on draft CHEOP**

VI. **Next Steps**

Minutes of the VB I-70 Working Group Meeting and CEASE Meeting 6/3/2004

Attendees: Anthony Thomas, Beverly Tafoya-Dominguez, Celia Vanderloop, Chris Poulet, Glenn Tucker, Gloria A. Shearer, Dorothy Reed, Jim Weaver, Kenneth Cotton, Lorraine Granado, Marilyn Starnes (Akwe), Mark Anderson, Patricia Ennis, Rocio Perez, Victor Ketellaper, and Wendy Hawthorne

The meeting began with a presentation by Dr. Mark Anderson of Denver Health and Hospitals.

Dr. Anderson talked about services offered through the PEHSU (Pediatric Environmental Health Specialty Unit) and recent findings about the ill effects of lead on young children even in concentrations below the CDC action level of 10ug/dl. He offered the group the use of the power point presentation he developed to educate medical personnel to the group. He feels that with minor changes it could be used for other target groups.

The PEHSU has a hotline available with information on a variety of environmental concerns available in English and Spanish. Arrangements are being made to treat the children with EBLs who have no other source of medical care through PESHU which receives partial funding from ATSDR (Agency for Toxic Substance and Disease Registry). PEHSU Magnets and brochures were distributed for dissemination to the community members.

The previous meeting minutes were approved as written.

A group member summed up the bio-monitoring committee has agreed that:

1. Every child age 6 and under should have the opportunity to participate in free blood lead testing and there will be screening for pica behaviors in children age 0-18 leading to targeted biological testing of children with pica.
2. Every child identified as EBL should have the opportunity for free follow-up case management services.

Akwe Starnes and Wendy Hawthorne expressed concerns about educating residents who did not want to participate in individual education sessions with a Promotora. Beverly Tafoya-Dominguez noted that the plan called for distribution of written information to each residence, for community presentations and other outreach and education methods so that those who do not wish to participate in individual education sessions will still be made aware of the lead and arsenic issues facing the community and educated about bio-monitoring services and prevention of lead or arsenic poisoning. Celia VanDerLoop

reassured the group that information would be available at local libraries and health fairs as well as through the above venues.

Lorraine Granado was concerned about tracking homes that were completed and or missed in the outreach process. Beverly reassured the group that DEH will have a system in place that would allow proper tracking and assign a notebook for each block to document the contact efforts and contacts made for each residence on a routine basis.

Lorraine suggested that the Promotoras track any homes that may have been missed by keeping a log and making a second attempt. The group concurred that a minimum of three contact attempts be made per residence and that written materials be left should residents not answer the door.

Jim Weaver was concerned about lead in interior paint, Victor Ketellaper from EPA, stated that EPA only remediates contaminated exterior paint and soil, but that funding will be available to conduct interior and exterior lead hazard screenings. Beverly and Wendy noted that the DEH offers free full-scale home investigations to families whose children have EBLs and that the Northeast Denver Housing Center currently has funds available to conduct lead paint abatement, when necessary, in homes where children have been diagnosed with EBLs. A priority system for Lead Hazard Screenings would need to be developed in order to target the homes of families whose children show mildly elevated EBLs that normally do not qualify for full investigations by DEH.

The second draft of the CHEOP was further reviewed and accepted. The group felt that the plan was acceptable and that no further meetings would be needed to address the plan. Beverly thanked the group for their input and reminded the group that the members would be asked to continue to guide the project during the implementation phase.

Attendees: Anthony Thomas, Beverly Tafoya-Dominguez, Celia Vanderloop, Chris Poulet, Glenn Tucker, Gloria A. Shearer, Dorothy Reed, Jim Weaver, Kenneth Cotton, Lorraine Granado, Marilyn Starnes (Akwe), Mark Anderson, Patricia Ennis, Rocio Perez, Victor Ketellapper, and Wendy Hawthorne

June 3, 2004
VB I-70 Community Health Plan
Working Group Meeting – Cross Community Coalition
4400 Lincoln St, Denver, CO 80216

CONTACT LISTS
for meeting of

June 3, 2004
VB I-70 Community Health Plan
Working Group Meeting – Cross Community Coalition
4400 Lincoln St, Denver, CO 80216

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MEETING HANDOUTS

for meeting of

June3, 2004
VB I-70 Community Health Plan
Working Group Meeting – Cross Community Coalition
4400 Lincoln St, Denver, CO 80216

See Appendix B-3 for Copies of Listed Handout Materials

1. Community Health Education and Outreach Plan

2. Supportive Evaluation Guidelines - Evaluation Tool

Working Group Meeting
Brainstorm
3/25/2004

Renovation

Renovate homes safely

Keep kids away from loose or chipping paint

Wash hands and face after playing outside (kids and adults)

Safe home remodeling

Replace or paint over chipped paint on all surface

Steps to take

Home cleaning (windowsills and floors)
If adults/kids work in yards wash their clothing when they come in

Don't let small children play on the porch (old homes)

Don't let your kids play in dirt

Spray surfaces to be cleaned with water (to reduce dust)

Good hygiene prevents lead poisoning

Good nutrition helps prevent lead poisoning

Hygiene

How to protect yourself/kids
Good nutrition

Wash hands and face and wipe feet when kids come in

Don't let kid eat dirt or paint

Don't let your children eat dirt - and why

Wash window sills weekly

Resources

Real specific information on the help available

Soil removal is available

Attend community meetings to learn more about lead and arsenic

These are the resources available to reduce exposure to lead

Sources of poisons

Keys contain lead.
Don't lead kids play with keys

Don't use cookware or pottery with lead based glaze

Multiple forms: lead paint, soil, pottery, etc

Ararcon and Greta are poison
Lead is in our neighborhood

Unexpected lead sources

Kid and testing

Have children under 6 yrs. tested for Pb based paint

Get your children tested

Follow up for elevated blood lead levels

Test children for exposure

Your health and your family's health may be at risk. Come in for a screening.

Test child

Get your kids tested

Home testing

Have you tested your family and house for lead lately? Now you can.

Test home and soil

If you have an older house, test it for lead paint

Lead and arsenic are bad

Lead poisoning...Still a problem

Lead-free is the way to be

Lead paint hurts kids for life!

Pb education for kids, parents

Effects of Pb on kids

Lead hurts kids

Lead and Arsenic are dangerous

You have the power

You can take actions to protect your kids

These are the steps I can take to reduce my exposure

Other

Culturally sensitive delivery

VB-I70 Health Education Plan
Delivery Mechanisms

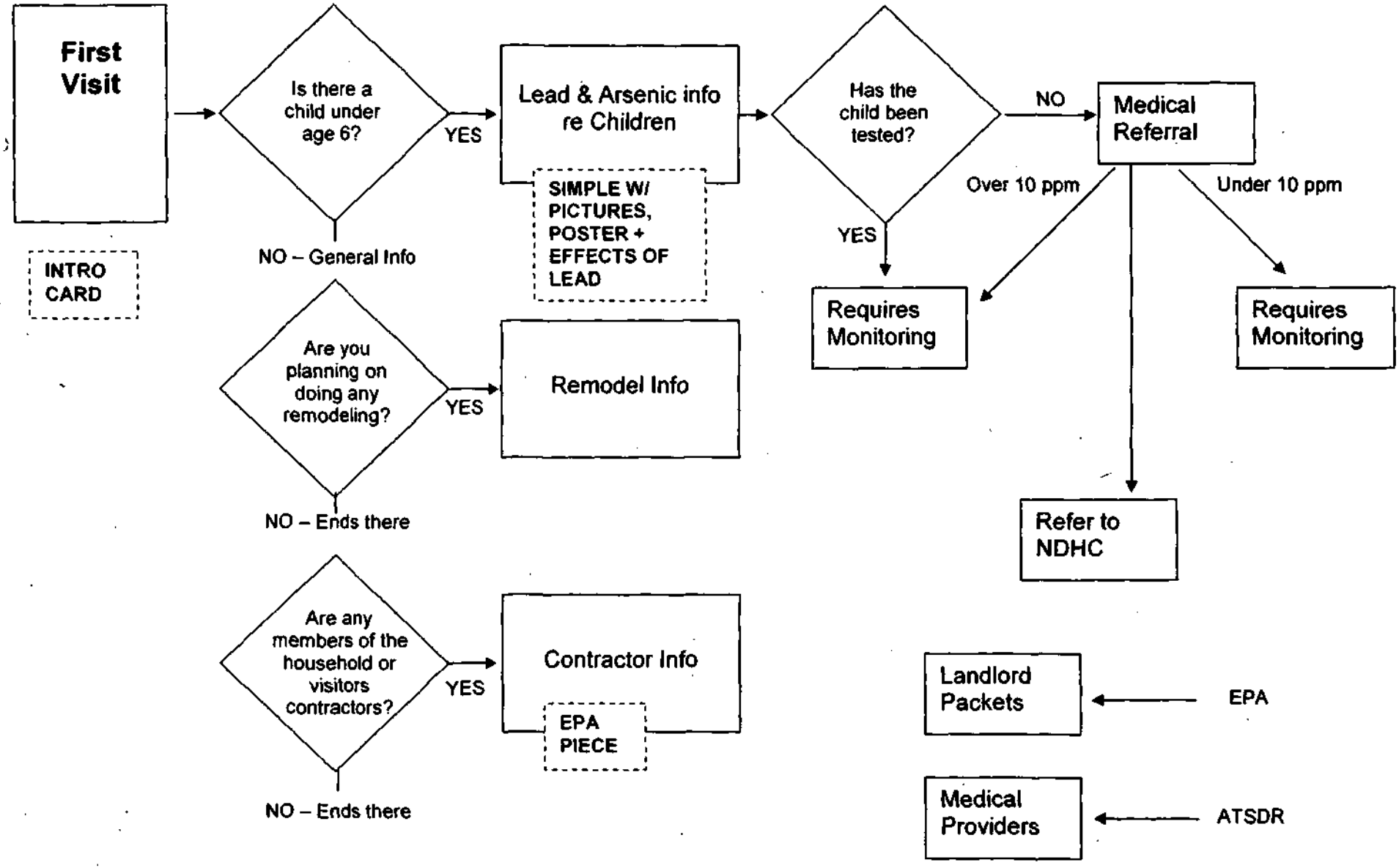
Who Delivers	Messages	How Delivered	Audiences	Frequency
Promotoras	Lead is Bad	Door to door	Families	Door to door 3/yr
	Get your kids, home, yard tested	Locations for presentations	Grandparents	others as scheduled by
	What you can do	Churches	New Home-buyers	
Children	Resources	Boticas		
	Sources ofPoison	Clinics		
	You have the power	Outsideschools		
Grandparents	Simple info on homerenovation	ESL classes		
		Events, fairs picnics		
		Preschools		
		Story Circles		
Material Outlets		Neighborhood Groups		
Youth	Same as promotoras	Science Classes	Children	As scheduled by DEH
		Env.Clubs	Families	School classes 1/yr each class
Educational		Churches	Grandparents	Events - as occurrred
		Events	Youth	comm. mtgs as they occur and
		Fairs		
		Picnics		
Real Estate Agents		Neighborhhod groups		

VB-I70 Health Education Plan
Delivery Mechanisms

Who Delivers	Messages	How Delivered	Audiences	Frequency
		backupfordoortodoor later on,depending on skills, safety,assistanceneeded		
DEH	same as promotoras but as backup QA	Same venues as above, but as	same	
Renovators	safe renovation - more complex info	contractor mtgs	contractors/inspectors	groups annually
	importance that info gets out	training sessions	real estate agents	Trng every two weeks
	process - tracking and evaluation	schools	principals/teachers	
	How to train	training sessions	promotoras & training	
Providers	Inspection/Regs/Notification	realtor mtgs	landlords	
		Landlord		
Trainers				

First Visit INFORMATION:

1. What are lead and arsenic poisoning?
   How do you get them?
   What are their effects on children?
2. How do you protect your household?



APPENDIX B-2

CEASE & VB/I-70 CHP Working Group Meetings

CONTACT LISTS

VB I-70 Working Group and Cease Community Meeting Health Planning Meeting Contacts

VB I-70 Working Group and Cease Community Meeting Health Planning Quarterly Contacts

VB I-70 Working Group and CEASE Community Health Planning Meetings Contacts

Resource Category	Neighborhood / Agency	Address	Contact	Phone
Annunciation Church	Cole	3621 Humboldt St., Denver, CO 80205	Nita Kennedy	303 296-1024 x 12
ATSDR	ATSDR	999 18th Street, Denver, CO 80202	Chris Poulet	303 312-7013
	CDC	999 18th Street, Denver, CO 80202	Glenn Tucker	303 312-7010
	ATSDR - DHS	1600 Clifton Rd., MS E31, Atlanta, GE 30333	Stephanie Foster	404 498-0568
CEASE	Clayton/CEASE	3966 Adams St, Denver, CO 80205	Anthony Thomas	303 399-1379
	Clayton	3202 Madison St., Denver, CO 80205	Beverly Lumumba	303 377-6629
	Globeville/Swansea-Elyria	4400 Lincoln St., Denver, CO 80216	Ellen Salvador	303 292-3508
	Cole	1300 Bruce Randolph Apt 603, Denver, CO 80205	Gloria A. Shearer	303 675-0328
	Cole	3554 Marion Street, Denver, CO 80205	Jim Weaver	303 296-9480
	Clayton / N/A	3228 Josephine, Denver, CO 80205	Joan Hooker	303 322-0920
	CCC	4400 Lincoln St., Denver, CO 80216	Lloyda Martinez	303 292-3508
	CCC	4400 Lincoln St., Denver, CO 80216	Lorraine Granado	303 292-3203
	Whittier	3134 Gaylord, Denver, CO 80205	Marilyn Starnes (Akwe)	303 294-9275
	CEASE	1630 Welton St.# 300, Denver, CO 80202	Michael Kosnett	303 571-5778
	Swansea	4928 Adams St, Denver, CO 80216	Michael Maes	303 296-4109

VB I-70 Working Group and CEASE Community Health Planning Meetings Contacts

Resource Category	Neighborhood / Agency	Address	Contact	Phone
Community Members	Clayton	Not Available	**Dimps Humphrey**	303 388-1718
		3426 Race St., Denver, CO 80205	**Rosa Maria Leon**	303 296-3946
CDPHE	CDPHE	4300 Cherry Creek Dr. South, Denver, CO 80246	**Barbara O'Grady**	303 692-3395
		4300 Cherry Creek Dr. South, Denver, CO 80246	**Derek Boer**	303 692-3329
		4300 Cherry Creek Dr. South, Denver, CO 80246	**Jane Mitchell**	303-692-2644
		4300 Cherry Creek Dr. South, Denver, CO 80246	**Michelle Macias**	303 692-2622
		4300 Cherry Creek Dr. South, Denver, CO 80246	**Patricia Ennis**	303 692-2789
Denver Environmental Health	DEH	201 W. Colfax Ave., Dept. 1009, Denver, CO 80202	**Beverly Tafoya-Dominguez**	720 865-5471
		201 W. Colfax Ave., Dept. 1009, Denver, CO 80202	**Celia Vanderloop**	720 865-5458
		201 W. Colfax Ave. Dept. 1009, Denver, CO 80202	**Gene Hook**	720 865-5469
		201 W. Colfax Ave. Dept. 1009, Denver, CO 80202	**Rocio Perez**	720 865-5456
		3825 Clay St., Denver, CO 80211	**Sunny Walker**	303 861-1627
DHHA	EPSDT	1001 Yosemite St., MC1701, Denver, CO 80230	**Keira Zapien**	303 436-3764
	Kids Care Clinic	777 Bannock St., Denver, CO 80204	**Mark Anderson**	303 436-4098

VB I-70 Working Group and CEASE Community Health Planning Meetings Contacts

Resource Category	Neighborhood / Agency	Address	Contact	Phone
DPS	DPS	2650 Elizabeth St., Denver, CO	**Dorothy Reed**	303 333-2748
EPA	EPA	999 18th St. Suite 300, Denver, CO 80202	**Kenneth Cotton**	303 312-6726
		999 18th St. Suite 300, Denver, CO 80202	**Jennifer Slavick**	303 312-6807
		999 18th St. Suite 300, Denver, CO 80202	**Pat Courtney**	303 312-6631
		999 18th St. Suite 300, Denver, CO 80202	**Peggy Linn**	303 312-6384
		999 18th St. Suite 300, Denver, CO 80202	**Victor Ketellapper**	303 312-6578
Mile High Montessori	Northeast Montessori	3503 Marion St., Denver, CO 80205	**Patsy Bruce**	303 295-2509
NEDHC	NEDH	1735 Gaylord, Denver, CO 80203	**Wendy Hawthorne**	303 377-3334

VB I-70 Working Group and CEASE Community Health Planning Meetings Quarterly Contacts

Resource Category	Name	Address	Contact	Phone
Churches	Annunciation Catholic Church	3621 Humboldt Street, Denver, CO 80205	Anita Kennedy	303 296-1024
	Apostolic Assembly	4985 St. Paul St., Denver, CO 80216	Pastor Daniel Salomon	303 294-0679
	Archdiocese Of Denver Metropolitan Tribunal	1300 S. Steele St., Denver, CO 80210	Rosemary Nelson, Risk Management	303 722-4687
	Bethsaida Temple	3930 W. 37th Ave., Denver, CO 80205	Pastor Earl Holloman	303 388-7317
	Bible Way Christian Training Center	3340 Bruce Randolph Ave., Denver, CO 80205	Not Available	303 399-3026
	Church of Christ	4368 Clayton St., Denver, CO 80216	Not Available	303 295-2579
	Community Seventh Day Adventist Church	2455 East 36th Ave., Denver, CO 80205	Not Available	303 329-0129
	Denver Gospel Hall	1631 Martin Luther King Blvd., Denver, CO 80205	Skip Crownhart	303 292-2710
	Epworth United Methodist Church	3401 High Street, Denver, CO 80205	King Harris	303 296-6287
	Globeville Community Church	5039 Lincoln Street, Denver, CO 80216	Pastor Salomon	303 296-8026
	Greater Harvest Church of God	4501 Lincoln Street, Denver, CO 80216	Not Available	303 292-9017
	Holy Rosary	4695 Pearl Street, Denver, CO 80216	Not Available	303 296-3283
	Holy Spirit Baptist Church	3563 Elizabeth Street, Denver, CO 80205	Not Available	303 388-9148
	Macedonia Baptist Church	3240 Adams Street, Denver, CO 80205	Pastor Morton	303 377-8821
	Mt. Calvary Lutheran Church	3560 York Street, Denver, CO 80205	Rev. Steve Bauer	303 297-3987
	Missionary Baptist	3456 Gilpin Street, Denver, CO 80205	Not Available	303 296-1177

VB I-70 Working Group and CEASE Community Health Planning Meetings Quarterly Contacts

Resource Category	Name	Address	Contact	Phone
Churches	Mt. Calvary Lutheran Church	3560 York Street, Denver, CO 80205	Rev. Steve Bauer	303 297-3987
	New Hope Baptist Church	3701 Colorado Blvd., Denver, CO 80205	Rev. Farley	303 322-5200
	Odom Memorial Church	3301 Williams Street, Denver, CO 80205	Pastor W. H. McDonald	303 292-5250
	Our Lady of Grace	2645 E. 48th Ave., Denver, CO 80216	Father Patrick Kennedy	303 297-3440
	Paradise Missionary Baptist Church	3715 Garfield Street, Denver, CO 80205	Not Available	303 355-8747
	People's Missionary Baptist Church	2501 Bruce Randolph Ave., Denver, CO 80205	Rev. Julius D. Grerce	303 377-0414
	Progressive Church of God	3205 Adams Street, Denver, CO 80205	Pastor B. C. Bryant	303 377-8983
	Salem Missionary Baptist Church	1720 Bruce Randolph Ave., Denver, CO 80205	Not Available	303 297-9221
	Shiloh Temple Free Church	4800 Cook Street, Denver, CO 80216	Not Available	303 377-5774
	Spottswood Ame Zion Church	3301 Milwaukee Street, Denver, CO 80205	Not Available	303 321-0354
	St. Cajaten's Church	299 S. Raleigh St. Denver, CO 80219	Linda Sosa	303 935-4483
	St. Joseph Polish	517 E. 46th Ave., Denver, CO 80216	Father Jan Mucha	303 296-3217
	Templo El Cordero	3799 Franklin Street, Denver, CO 80205	Not Available	303 298-1834
	Union Chapel	3622 Marion Street, Denver, CO 80205	Not Available	303 295-2144
	Wayside Church-God In Christ	3405 High street, Denver, CO 80205	Not Available	303 295-2484
Community Centers	Cole Family Resource Center	1812 East 33rd Ave., Denver, CO 80205	Not Available	303 295 4011 303 292-3341 f
	St. Luke Community Center	3444 Madison Street, Denver, CO 80205	Not Available	303 329-0079

VB I-70 Working Group and CEASE Commu[illegible] Health Planning Meetings Quarterly Contacts

Resource Category	Name	Address	Contact	Phone
Clinics / Hospitals	St. Anthony Central	4231 W. 16th Ave., Denver, CO 80204	Gloria Raigoza, RN,BSN MPA	303 629-2325 w 303 629 2121 f
Denver Public Schools	Denver Public Schools	900 Grant Street, 2nd Fl., Denver, CO 80203	Donna Shocks, Program Manager	303 764-3437 303 764-3599 f
Early Childhood Education	Clayton Head Start	3801 MLK. Blvd., Denver, CO 80205	Cathy McCarty	303 331-0650
	Clayton Foundation, Clayton College Campus	3801 MLK. Blvd., Denver, CO 80205	Cathy McCarty	303 355-4411
	Globe and Swansea Head start	5100 Lincoln St., Denver, CO 80216	Amanda Keller	303 296-2796
	Globe and Swansea Head start	5100 Lincoln St., Denver, CO 80216	Shannon Bills	303 296-2796
	Family Star Montessori	13331 East 33rd Ave., Denver, CO 80205	Terry Hudgens	303 295-7711
	Johnson Head Start Center	3560 Josephine St., Denver, CO 80205	Grant Farnsworth	303 388-5122
	Montessori-Garfield School	3993 MLK Blvd., Denver, CO 80205	Not Available	303 388-8828
	Northeast Montessori	3503 Marion St., Denver, CO 80205	Patsy Bruce	303 295-2509
Elementary Schools	Annunciation Elementary School	3536 Lafayette St., Denver, CO 80205	Sr. Gene Pastoral Assistant	303 295-2515
	Barrett Elementary	2900 Richard Allen Ct., Denver, CO 80205	Betty Johnson, Principal	303 388-5841
	Beach Court Elementary	4950 Beach Ct., Denver, CO 80205	Frank Roti, Principal	303 455-3607 m 303 764-7532 f
	Columbine Elementary	2540 E. 29th Ave., Denver, CO 80205	Dorothy Reed, RN	303 388-3617 303 764-7526 f
	Ebert Elementary	410 Park Ave. West, Denver, CO 80205	Joan Wamsley, Principal	303 295-7869 m 303 764-7647 f
Elementary Schools	Garden Place Elementary	4425 Lincoln St,. Denver, CO 80216	Tess Clinicos, RN	303 295-7785
	Harrington Elementary	2401 E. 37th Ave., Denver, CO 80205	Sally Edwards	303 333-4293

VB I-70 Working Group and CEASE Community Health Planning Meetings Quarterly Contacts

Resource Category	Name	Address	Contact	Phone
Elementary Schools	Maria Mitchell Elementary	1350 E. 33rd Ave., Denver, CO 80205	Reginald Robinson, Principal	303 296-8412 m 303 764-7803 f
	Pioneer Elementary	3230 E. 38th Ave. Denver, CO 80205	Dorothy Ward, Principal	303 329-8412 303 764-7999 f
	Swansea Elementary	4650 Columbine St., Denver, CO 80216	Janika Mahon, RN	303 296-8429
	Wyatt-Edison	3620 Franklin St., Denver, CO 80205	Day Reynolds	303 292-5515
Middle Schools	Cole Middle School	3240 Humboldt St. Denver, CO 80205	Mary Nor Wright, RN	303 296-8421
	Randolph Bruce	3955 Steele Street., Denver, CO 80205	Don Manzanares	303 320-5606
High Schools	Millennium Quest	1700 E. 28th Ave., Denver, CO 80205	Diane Deschanel	303 391-6300
Library	Valdez-Perry Branch	4690 Vine Street, Denver, CO 80216	Pilar Castro-Reino, Manager	303 295-4302
Neighborhood Associations and Community Leaders	Civic Association of Clayton	3840 York ST., Denver, CO 80205	Anthony Thomas	303 399-1379
	Clayton Community Leader	3228 Josephine, Denver, CO 80205	Joan Hooker	303 322-0920
	Clayton Neighborhood Association	3202 Madison St., Denver, CO 80205	Dr. Beverly Lumumba, Ph.D.	303 377-6629
	Cole Neighborhood Association	3553 Lafayette St., Denver, CO 80205	Sandy Douglas	303 295-4525 303 296-1026 f
	Cole Neighborhood Association	3553 Lafayette St., Denver, CO 80205	Mrs. Juana Gonzales	303 295-4525 m 303 296-1026 f
	Elyria Business Association	#3 Red Fox Lane Littleton, CO 80127	Mr. Larry L. Burgess	303 956-8572
	Globe Civic Association	P.O. Box 16484 Denver, CO 80216	John Zapien	303 296-4657

VB I-70 Working Group and CEASE Community Health Planning Meetings Quarterly Contacts

Resource Category	Name	Address	Contact	Phone
Other	Emmanuel's Bakery	500 E 45th Ave., Denver, CO 80205	Irma Valenzuela	303 292-6799
	Defensor del Hispano	4500 Sherman St., Denver, CO 80216	Not Available	No Phone Number
	Women's Bean Project	3201 Curtis, Denver, CO 80205	Amanda	303 292-1919
Recreation Centers	Johnson Recreation Center	4809 Race Street, Denver, CO 80216	Victor Deleon, Director	303 295-4477
	St. Charles Recreation Center	3777 Lafayette Street, Denver, CO 80205	Thomas Herndon	303 295-4462
	Swansea Recreation Center	2650 E. 49th Ave., Denver, CO 80216	Phil Madrid, Director	303 295-4434
Senior Centers	Clyburn Village Denver	3280 Downing Street, Denver, CO 80205	Joseph Marquez	303 293-0278

APPENDIX B-3

CEASE & VB/I-70 CHP Working Group Meetings

DRAFT CHEOP

Community Health Education and Outreach Plan – Draft of May 19, 2004
Supportive Evaluation Guidelines - Evaluation Tool

Vasquez Boulevard/I-70 Superfund Site

Community Health Education and Outreach Plan

Rough Draft - May 19, 2004

Outline:

A. *Executive Summary*

B. *Background on Site*

C. *Overall Program Goal*

1. Statements and expectation of ROD
2. Agency Goal of CHP

D. *Process for Development of CHEOP*

1. Community Involvement
2. Existing Community Strengths and Weaknesses
3. Environmental Justice Concerns
4. What's worked in other communities
5. Timeframe

E. *Need for Community Health Education and Outreach Program (CHEOP)*

1. Community Goal for CHEOP
2. Community-Expected Benefits of CHEOP

F. *Expected Outcomes for CHEOP*

G. *Components of CHEOP*

1. Outreach Methods
    a. Who
    b. What
    c. When
    d. Where
    e. How
2. Evaluation mechanisms
3. Reporting mechanisms
4. Schedule
5. On-going communication, feedback, and revision of above

Executive Summary

Summary of Plan, written after rest is complete

A. Background on Site

In 1998, CDPHE requested EPA's assistance in sampling residential yards in the Swansea and Elyria neighborhoods of Denver. Smelting activities were suspected to have potentially increased levels of some metals in area yards. These metals could pose a health risk to people who live in the area. Based on soil sampling results, EPA added the VB/I-70 Site to the National Priorities List. This is a list of sites that EPA has prioritized for cleanup.

In March 1998, EPA began a large soil sampling effort in the residential yards, schools, and playgrounds in Swansea, Elyria, and the northern half of the Cole and Clayton neighborhoods. Based on the results of this sampling effort and meetings with community members, EPA expanded the study area to include all of the Swansea/Elyria, Cole, Clayton, and a portion of Globeville neighborhoods. The VB/I-70 site currently includes approximately 4000 residential yards. EPA has sampled more than 3000 of these yards.

Elevated levels of arsenic and lead were found in some of the residential yards throughout these neighborhoods. Levels of both arsenic and lead are lower in gardens than in yard soil. Lead and arsenic levels at area schools and parks are low and are not of concern to area children. Arsenic and lead are the metals most likely to be of human health concern in the residential soils in the neighborhoods. EPA's sampling so far shows that yards with elevated arsenic levels occur randomly throughout the entire VB/I-70 Site. Some pattern of yards with elevated lead may exist, with higher concentrations found to the northwestern area of the site.

As part of the final cleanup, EPA will begin another sampling program that will attempt once again to gain access to yards it has not yet sampled to determine whether they need to be cleaned up. As part of the final cleanup, EPA will expand the area to be sampled to include residential yards in a small area from the convergence of Blake Street and Downing Street south to about 34th Avenue. The soils in this area may have similar elevations of lead as found within the VB/I-70 Site boundaries, based on a lead pattern observed in the VB/I70 neighborhoods. In addition to

lead, the yards will also be sampled for arsenic to be consistent with the VB/I-70 sampling protocol.

In order to assure protection of children in VB/I-70, EPA immediately removed the soil from 48 yards and replaced it with clean soil. The Record of Decision selected a preferred remedy that includes removal of contaminated soils at those homes where arsenic levels exceed 70 parts per million or lead levels exceed 400 parts per million. The selected remedy also includes provision of a Community Health Program (CHP), designed by the community, for the duration of the soil cleanup actions.

B. Overall Program Goals

As stated in the Proposed Plan for the VB/I70 site, the CHP is intended to address the risks to children with soil pica behavior and children exposed to lead from multiple sources. It also will address risks to residents living on soils that are above EPA action levels while they are waiting for an EPA cleanup and at properties where EPA was denied access to sample. The program will assess risks from any and all potential sources of lead exposure including those which may present a greater risk to children than lead in soil. The program may also provide a way to evaluate the effectiveness of the other options. There will be 3 components in this program: (1) health education; (2) biomonitoring; and (3) response. The Community Health Program would address as many sources of lead as practicable. The Community Health Program will be effective in addressing the potential health risks to children with soil pica behavior and the health risks to children exposed to lead from many sources.

The Record of Decision describes the required components of the CHP as follows:

Insert narrative and statements from ROD

Given the above expectations and input from the community, agreement was reached that the overall program goal of the VB/I-70 Community Health Program is to develop, implement, and manage a community health program, in collaboration with residents, to reduce residents' exposure to arsenic and lead in soil during the period of soil remediation, to reduce children's exposure to

contaminants in soil from soil pica behavior, and to reduce children's exposure to lead from sources other than soil. The CHP will include the following components at a minimum:

(a) community outreach and education

(b) bio-monitoring

(c) case management for children identified with elevated levels of arsenic or lead, including environmental investigations

(d) medical management of elevated cases

(e) interagency coordination of response activities;

(f) program management and administration;

(g) data management and reporting.

In order to conduct effective community outreach and education, and coordinate sufficiently with other program components, a Community Health Education and Outreach Plan (CHEOP) was needed.

Process for Development of CHEOP

Community Involvement

In order to develop and implement the the CHP, it was important that community members be actively involved and that a wide variety of viewpoints be represented. It was agreed that:

(a) DEH would establish the steering committee to address administrative issues and lay groundwork for bio-monitoring to commence in 2004.

(b) Individual communities would decide on the where, when and how of bio-monitoring in their community.

(c) Individual communities would decide on the where, when, and how of health education in their community.

In order to identify and flesh community health education and bio-monitoring goals, a number of community involvement mechanisms were used. From the beginning the EPA and DEH were asked to make the CHP planning process a community-driven process and DEH has sought to honor that request. Numerous community meetings, in a variety of forums were used to develop the CHEOP. Table 1 indicates the meetings held to solicit community input. The meeting agendas, minutes and other pertinent documents are available in the appendices to this report.

Poor Quality Source Document

The following document images have been scanned from the best available source copy.

To view the actual hard copy, contact the Superfund Records Center at (303) 312-6473.

Table I

November 4, 2003	Environmental Protection Agency	EPA
December 9, 2003	St. Martin's Plaza	Cole and Clayton
December 19, 2003	Denver Environmental Health	Steering Committee
January 16, 2004	Denver Environmental Health	Steering Committee
January 22, 2004	Cross Community Coalition	VB/I-70 Working Group and CEASE
February 12, 2004	Cross Community Coalition	VB/I-70 Working Group and CEASE

February 25, 2004	St. Martin's Plaza	VB/I-70 Working Group and CEASE
March 8, 2004	Cross Community Coalition	VB/I-70 Working Group and CEASE
March 9, 2004	Cole and Clayton	Cole Organizing Alliance
March 11, 2004	Hope Center Children's Program	Clayton
March 25, 2004	Cross Community Coalition	VB/I-70 Working Group and CEASE
Need to add subsequent meetings		

The neighborhoods involved in obtaining Superfund status and then advocating for their communities had formed a group called CEASE that has been in place for several years. CEASE represents the Cole, Clayton, Elyria-Swansea, and south Globeville neighborhoods. DEH staff set up regular meetings with CEASE representatives, focusing on development of the CHEOP. DEH staff also contacted all of the registered neighborhood organization leaders from neighborhoods included in the ROD and invited them to send representatives to the meetings. Interested communities nominated representatives from their respective neighborhood organizations to participate in CEASE. The representatives presented the concerns of their neighborhood residents to the group at large and reported to their neighborhood organizations about the progress of the CHP plan. The CEASE-sponsored community meetings were held twice each month. **Do community members want to list members/representatives in CEASE?**

At the suggestion of the CEASE members an outside facilitator was hired. Focused conversation, consensus workshop and action planning processes were used for obtaining input from the community members. These structured participation methods are inclusive, enable groups to be more responsive to change, and allow for creative decision making. As some of the parties involved in the plan felt more comfortable with traditional facilitation methods, some meetings were organized to honor these requests.

Some community leaders suggested that some community meetings be held in the evening or as part of a regularly scheduled neighborhood organization meeting so as to insure that all residents had the opportunity to participate in developing the CHEOP (See the appendices for a list of meetings.) As the CEASE meetings were held during the day, some community members had difficulty making time to attend these meetings yet still wanted to provide input. Presentations and requests for input were made at the evening meetings. The Cole Organizing Alliance Meeting and the Clayton Neighborhood Association asked DEH to gather input as part of their regularly scheduled meetings. For the most part, contact with groups that requested evening and/or Saturday meetings were made on a one-time basis, as these groups either had provided representatives that were attending the

regular CEASE meetings, or the groups had requested that a follow-up presentation be made when the CHEOP was completed.

In addition, DEH scheduled and held four community meetings in attempts to reach a broad spectrum of the VB/I70 site population. Announcements for these meetings were distributed through weekly folders at area schools, and through announcements at Early Head Start locations.

Some neighborhood representatives participating in CEASE requested that the Spanish speaking participants in their organization be given additional time to share their ideas. A bilingual DEH staff person conducted confidential small group interviews in which the participants recommended using more mass media to reach the Spanish speaking community as their neighbors are reluctant to attend community meetings.

DEH also established the steering committee to address administrative issues, provide a mechanism for coordination and information-sharing between governmental agencies, and develop technical components for bio-monitoring to commence in 2004.

Existing Community Strengths and Weaknesses

The following data table describes the characteristics of each neighborhood:

Community	Total Community Members	Persons in Poverty	% Monolingual Families	% Children <age 6	% Housing Built Before 1940	% Renter Occupied
Clayton	5172	1470	28.5	11.3	39.7	43
Cole	5662	1487	40.5	12.1	56	51.7
Swansea/Elyria	6708	1853	42.5	12.7	32.3	39.3
Globeville	3454	758	35	10.6	48.5	37.3
Total	20996	5568				

Community Strengths

Community members reflected numerous strengths of their respective communities. These strengths are expected to strengthen and improve the CHP.

These communities have strong leaders that are committed to changing their neighborhoods for the better. They are extremely committed to improving the lives of the children within their community, and working with other community members to do so, whether they are black, latino, white, young, or older. The commitment is demonstrated by numerous activities and organizations already under way within the communities. Representation at many of the meetings in many venues reflected the diverse population and the commitment to honoring this diversity.

Community members are also represented by strong and committed organizations. The VB I-70 community (Swansea/Elyria, Globeville, Cole and Clayton) has agreed to be represented by a strong organizational group named CEASE. The CEASE members present their community's feedback during meetings with government agencies and report back to their individual communities about the issues addressed. Numerous other community-based organizations, both new and established, serve the community and represent its diverse interests. These organizations include the registered neighborhood organizations, Cross-Community Coalition, the Cole-Clayton Neighborhood Alliance, COPEEN, the Swansea/Elyria Community Development Center, and numerous churches and faith-based organizations. Additional organizations providing service to the community include Inner-City Health Clinic, Northeast Denver Housing Center (NDHC), Head Start programs, Children's Hospital School-based Health Program. Several organizations put out neighborhood newsletters in which CHP information can be published. Others have block captains that may be available to disseminate information.

Another community strength that should add to the success of the CHP is the knowledge, expertise, and relationships built through participation in the VB/I70 Working Group, which has been meeting since 1998 (1999?). Due to this history, members were familiar with many technical aspects of the

site, with health issues associated with arsenic and lead exposure, and with the Superfund regulatory framework. There also has been significant outreach and education about the VB/I70 site from both EPA and the communities, providing for a higher level of knowledge regarding the site within the communities at large, although more information and education would be helpful.

In addition, the VB I-70 community leaders are committed to the community health plan and to getting complete community participation in the soil testing and remediation of contaminated soil. Community members have been helpful in providing assistance to EPA in gaining access for remediation, and in suggesting ways to improve communications.

Another asset to the community that should lead to acceptance of the CHP is that remediation has begun and is in progress within the community. Community members can see the benefits of yard cleanup, and have hope that the overall project will be completed and successful. Yard cleanups to date have resulted in some improved appearances for area yards, causing some community members to get over initial fears of the remediation process.

The Kids At Play Health Study contributed a great deal to the community in that many neighborhood children were tested for blood lead and arsenic levels during the summer of 2002. This study served to provide baseline data on blood lead levels. The study also benefited greatly from community involvement, and was an example of agencies and community working in partnership to accomplish joint goals.

In several neighborhoods, Healthy Children Partnership programs are taking place to provide education regarding lead poisoning through a separate grant, and to provide limited in-home lead paint testing. Neighborhood youth are providing the educational outreach, and community workers are trained to conduct education and paint testing. The Healthy Children Partnership programs are currently administered through the Northeast Denver Housing Center.

Northeast Denver Housing Center also manages and administers a large grant from the federal Housing and Urban Development Agency, which provides funding for lead-paint abatement in the homes of lead poisoned children. We anticipate that, should children be identified with elevated

blood lead levels due to deteriorated lead paint, these families can be referred to NDHC and may be eligible for lead paint abatement of their homes.

In addition, staff from DHHA, CDPHE, EPA, ATSDR, DEH and other agencies provide their expertise with the community. The neighborhoods have also been designated as Enterprise Zone or Focus Neighborhoods to assist with economic development in many of these neighborhoods. DEH is currently administering several related grants aimed at reducing lead paint poisoning. One grant uses community lay health workers, known as Promotoras, to educate primarily Spanish-speaking residents about lead hazards. Another grant is focused on *education about safe home maintenance and renovation"* and a third conducts a school-based lead poisoning prevention program emphasizing hand washing and increased calcium intake with ECE, Kindergarten and some First Grade students and their parents. Expertise gained through these grants, as well as skills developed by bilingual DEH staff, are available to train the trainers as well as provide guidance to the community health workers and organizations conducting the environmental health education activities.

Weaknesses

As in any other communities, these communities have some weaknesses that may make success of the CHP more difficult. As the program is implemented, we must remain aware of these factors and take steps to address them in order to accomplish program goals.

Although, the VB I-70 community through CEASE and the neighborhood organizations has been quite successful, community involvement in civic affairs appears to be limited to relatively few individuals in proportion to the population. Perhaps this lack of involvement could be attributed to the fact that low income residents must work more hours than is the norm in more affluent communities and they do not have time to participate. Another serious weakness is the lack of participation in community affairs on the part of Spanish-speaking residents. The lack of community involvement in civic affairs can be attributed to a general lack of education, a large number of residents being undocumented, a lack of knowledge of the English language and a lack of knowledge about how the "system" works in the United States. In addition, the Spanish-

speaking residents, who make up approximately 35% of the area's population, have a deep distrust of government agencies.

Other communities' weaknesses include friction between the different neighborhood organizations that sometimes results in competing agendas, or an unwillingness to attend common meetings.

Lastly, these neighborhoods have many difficult issues to deal with. In addition to the VB/I70 site, the neighborhoods face a variety of environmental issues, poverty-related economic concerns, and race-related concerns. Due to many concerns, community residents sometimes are overwhelmed by VB I-70 site issues and choose to deal with the issues immediately before them.

Further more, some community discomfort has been due to some areas have received monetary compensation for the remediation of contaminated soil, while others have not received monetary compensation. This has lead to concern and confusion as to why do some individuals get monetary compensation and or soil remediation and others don't.

All communities have their strengths and weaknesses, the VB/I-70 area included. The VB-I70 area is fortunate to have community leaders involved and committed to education and prevention, pediatric testing, exterior and interior testing for lead and arsenic, and soil remediation. In review, the weaknesses strongly suggest the need for culturally sensitive and community-based outreach and health education program.

Environmental Justice Concerns

The VB/I-70 ssite is an Environmental Justice site because the community is predominantly low income, minority, and is disproportionately affected by environmental impacts from many sources including industry, other Superfund sites, and major transportation corridors. The selected remedy includes a Community Health Program which will address sources of lead exposure other than soil, such as lead paint inside homes. This program is an attempt to address cumulative environmental sources and their impacts in this Environmental Justice community. EPA has asked and worked with community representatives to develop the design of this Program and to help us implement it.

Include ATSDR narrative describing EJ concerns facing neighborhood, cumulative sources of pollutants of concern, borrow from ATSDR PHA, why important to address EJ issues, make sure reviewed by community and acceptable.

What has worked in other communities

A review of the literature was conducted at the request of the CEASE/VB/I-70 Working Group to determine what methods had worked in similar community health projects. DEH staff collected data by searching computerized bibliographic databases and by contacting organizations currently conducting community-based health programs in predominantly Latino communities. The studies selected from the data bases were conducted during the past five years. The research showed a paucity of information about lead poisoning prevention interventions publicized in recent community health or health journals or in government databases, so some information was drawn from the cancer, diabetes and HIV prevention fields. The criterion for inclusion was whether the program was conducted in a predominantly Latino low-income community and if the program was able to demonstrate significant progress toward meeting the program objectives. Thirty four of the 83 studies investigated involved environmental health interventions. The different approaches used by the successful programs were categorized according to the type of intervention utilized:

- Health systems change (primarily health care provider education/program coordination)
- School based interventions with parent education component
- Risk reduction
- Landlord training
- Renovation
- Drama
- Computer based learning
- Information repositories
- Surveillance programs
- Mass media or social marketing campaigns
- Support groups for parents
- Education through visual art

- Education utilizing professional community health educators
- Education utilizing community health workers
- Combination programs utilizing at least two of the above mentioned intervention methods.

Twenty nine of the published intervention programs in small Latino communities utilized community health workers, 15 utilized professional community health educators to educate the community residents, nine used media campaigns, and seven utilized a school-based approach. The eight combination programs utilized combinations of the five most popular types of intervention. Table 2 shows the categories of interventions utilized in the programs reviewed.

Health systems change	6
School- based	7
Risk reduction	3
Landlord training	1
Renovation	4
Drama	3
Computer-based learning	1
Information repositories	1
Surveillance programs	2
Mass media or social marketing campaigns	9
Support groups for parents	1
Education through visual art	2
Education utilizing professional community health educators	15
Education utilizing community health workers	29
Combination programs included in above	
Total	84

Only programs that demonstrated success in meeting program objectives while working with a predominantly Latino community were selected. As can be seen from the above table, education utilizing community health workers was the most preferred method among programs showing

success. Other intended components of the CHP, including health system change and renovation training, were also successful.

Community Goals and Expectations for the CHP

During meetings held in the community, community members found the following requirements stood out in describing the community health program. These factors were considered important components of the CHP to the participating community.

(a) CHP would be in effect until soil removal is finished.
(b) The CHP would provide bio-monitoring to look for exposures.
(c) The CHP is intended to protect children from all lead hazards, not just hazards from lead in soil.
(d) The CHP will educate community members about the soil removal program.
(e) The CHP will educate community members, especially families with young children, about lead and arsenic hazards.
(f) The CHP will educate about pica behavior in children.
(g) The program will address health risks for residents.
(h) The program will make resources available to conduct the community health program.
(i) There is a response to exposures.
(j) After many years of work, the community and agencies came up with something they can live with.
(k) Environmental clean-up will be provided.
(l) There will be community involvement in developing and providing the community health plan.
(m) Participation in the program is voluntary and free of charge.
(n) Education will be provided for all families.

In order to provide a useful CHP that provides benefit to the community, it is important that the above facts and benefits be honored in the planning and implementation of the CHP.

Benefits of CHP

The community members recognized that the CHP can provide numerous benefits to this community that include the following. The plan should be designed, implemented, and adjusted as needed to accomplish these benefits for the community.

a) Help prevent exposures before they occur, through education and outreach activities.
b) Involve the community in prevention, education, and outreach to utilize community strengths and partnerships and reach community members not normally reached through standard methods.
c) Minimize potential exposures to site chemicals of concern (COCs) during the timeframe in which the site remedy is being implemented, but is not yet complete.
d) Reduce children's exposure to sources other than soil. Especially for lead, it is well documented that there are multiple potential sources of exposure, including deteriorated lead-based paint, the predominant source of exposure for most children.
e) Ensure that community members are appropriately tested (biomonitored) for exposure to the contaminants of concern.
f) Ensure that community members with elevated levels of exposure are provided with appropriate follow-up investigation, referral, and mitigation.
g) Ensure that the community becomes an integral component of ensuring that a protective remedy is implemented.
h) Identify and provide interventions for children exhibiting pica behavior. Typically, pica children require additional interventions than provided by a simple soil removal program. This is because they are at risk for health effects from contaminants such as lead in soil, even at urban background levels.
i) Verify remedy effectiveness. It is important to collect data on remedy effectiveness to ensure that a protective remedy has been selected. Data can be evaluated periodically to address community concerns regarding the protectiveness of the remedy.
j) Develop infrastructure, knowledge, and skills within the community to allow continued health education and health promotion efforts in the community.

Expected Outcomes for CHEOP

After discussing goals and expected benefits from the CHEOP, the group agreed that a number of quantifiable outcomes should be expected from the program. These quantifiable outcomes are described below:

1) An infrastructure will be established that allows continued efforts in the community. Because of the high mobility of Denver residents, the communities are united in their desire to insure that the lead poisoning prevention messages are part of ongoing community health efforts even when EPA funding is no longer available. In addition, DEH's goal is that city agencies will develop capacity to conduct education and outreach with community assistance, develop the skills and infrastructure necessary to manage biomonitoring data and utilize data to understand and plan for public health impacts of lead poisoning, and improve the capacity for agencies and communities to work together to prevent lead poisoning. In years two and three, agencies will be inventoried as to what resources and capabilities are available and methods to continue providing the lead poisoning messages in the years to come will be determined.
2) Contacts/information will be delivered to every door at least once per year. Community members wanted every household to be contacted at least once a year over the initial three year period. Since Denver residents frequently move from neighborhood to neighborhood this is particularly important. Households will be tracked by address to ensure that at least one contact per year is made, regardless of whether occupancy has changed. Yearly household contact will help to identify new residents so that outreach and education efforts can be provided. As new residents are identified, they will be provided with the full suite of CHP services.
3) Every child will have had at least one opportunity to participate in biomonitoring. Community biomonitoring sites will be well-publicized through the neighborhood newspapers, school folders, and through PSA in the local media outlets. For each biomonitoring event, information on the biomonitoring event will be provided through door-to-door contacts, weekly folders, or flyers to ensure that each household within the targeted neighborhoods will be notified of the availability of testing. Youth workers can play an important part in alerting CHP staff to homes with young children who are in need of testing.

4) The effectiveness of the outreach and education efforts will be evaluated. Households will receive surveys asking what is effective and what is not. A representative sample of households will be asked to complete an evaluation. The evaluation will include a section to determine which behaviors, if any, were changed in order to reduce the incidence of exposure to lead and arsenic. Community listening sessions will be held as requested with neighborhood organizations and at least once a year for the 3 year duration of the formal CHP. Process evaluations shall be conducted on a regular basis as part of the community health worker training. Process tracking will also be conducted to ensure that necessary contacts have been made.
5) Every community person would have had the opportunity to attend at least 1 community meeting per year. Meetings will be scheduled, at least once per year, at which the CHP will be discussed. Mini-evaluations will be conducted at each community listening session and will also be part of the general program evaluation. The evaluation will include questions about which, if any meetings, were attended, what participants felt about the information presented, and the logistics of the meetings and what could have been improved upon.
6) We have identified what behaviors are causing exposure and we have changed those behaviors to reduce exposures. Environmental investigations will be conducted for all children with elevated blood lead or arsenic biomonitoring results. Individual cases will be tracked to understand what exposures caused the elevated levels, and data will be aggregated in order to understand what sources and behaviors are causing exposure. Interventions will be evaluated to identify which interventions were successful at reducing exposure levels.

Components of CHEOP

Outreach methods preferred by the community

As a result of the CHEOP planning process, community members reached consensus on how the community outreach and education program should be conducted. The "who, what, how, when, where" of the program specifics are described below. These specifics are briefly contained in Table 3, below.

Insert table showing columns for who, what, where, when.

Who

Who Delivers	Messages	How Delivered	Audiences	Frequency
Promotoras	Lead is Bad	Door to door	families	Door to door 3/yr
	Get your kids, home, yard tested	Locations for presentations	Grandparents	others as scheduled by promotoras or DEH
	What you can do	Churches	New Homebuyers	
	Resources	Boticas		
	Sources of Poison	Clinics		
	You have the power	Outside schools		
	Simple info on home renovation	ESL classes		
		Events, fairs picnics		
		Preschools		
		Story Circles		
		Neighborhood Groups		
Youth	Same as promotoras	Science Classes	Children	As scheduled by DEH
		Env.Clubs	Families	School classes 1/yr each class
		Churches	Grandparents	Events - as occurrred
		Events	Youth	comm. mtgs as they occur and scheduled
		Fairs		
		Picnics		
		Neighborhhod groups		
		backup for door to door later on, depending on skills, safety, assistance needed		
DEH	same as promotoras but as backup QA	Same venues as above, but as oversight	same	
	safe renovation - more complex info	contractor mtgs	contractors/inspectors	groups annually
	importance that info gets out	training sessions	real estates	Trng every two weeks
	process - tracking and evaluation	schools	principals/teachers	
	How to train	training sessions	promotoras & training	
	Inspection/Regs/Notification	realtor mtgs	landlords	
	HR 2010 Libraries	Landlord		
Community Organizations	same as promotoras, but as agreed to as a part of work agreements	venues as agreed to in work agreements	audiences as agreed to in work agreements	as defined in work agreements
		flyers where appropriate		
Trainers				

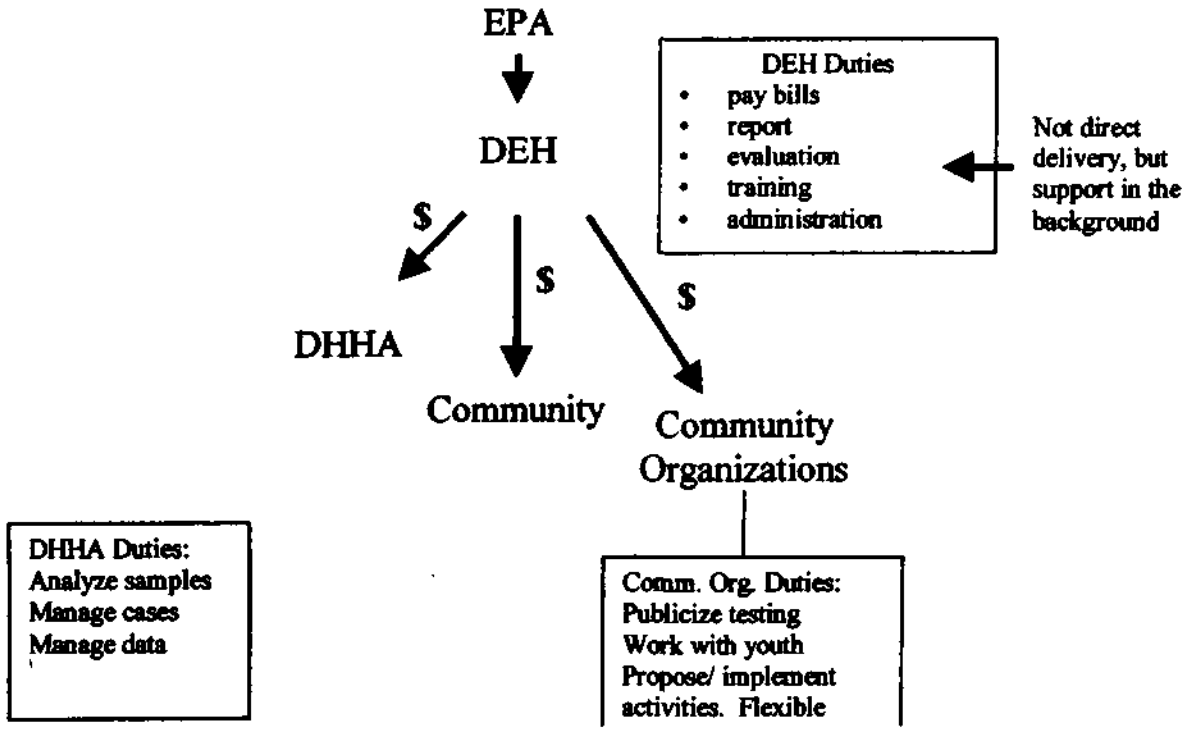
Participants in all community meetings, including those hosted by CEASE and neighborhood organizations, emphasized the importance of using paid community health workers from the neighborhood to carry out most educational activities. The community health worker (in Spanish they are called "promotores" or "promotoras") model calls for members of the community to be the primary point of contact for community members once trained in the subject matter, preferred delivery methods, and other program specifics. Promotoras also will be expected to conduct outreach at neighborhood events, and may assist in school presentations. The strengths of the promotora model include that community members reflect the make-up of the community and are more accepted than "outsiders". Ideally, the promotoras will be trusted and respected members of the community, familiar with the neighborhoods and neighborhood leaders. They will also be reflective of the neighborhood's diversity. They are a mechanism of utilizing the communities' strengths while directing program resources into the communities.

Some neighborhoods expressed a preference for continued support of their intergenerational Healthy Children's Partnership or HCP, currently funded by a separate grant. The HCP consists of trained volunteers, primarily youth who canvass the neighborhoods for families willing to have their homes evaluated for lead hazards. The emphasis is on local residents, especially youth being used to educate the community. Other community representatives expressed concern regarding youth being involved in the project in door to door education as they felt that previous efforts had resulted in inconsistent messages being given to residents. These representatives assimilated the results from the other community meetings and voiced approval for youth being involved in the program as presenters at schools and events and to conduct outreach, but not door-to-door education. The youth are to receive the same training as the other community personnel with an emphasis on message consistency.

A preference was expressed that existing community organizations be incorporated into the plan. Community organizations are recognized as bringing a number of strengths, in that they know the community, they are trusted by the community members, they will know of events, locations, and organizations where outreach may be appropriate, they have greater ability to utilize existing capacity within the community such as youth groups, and they bring community energy into the project. At the same time, DEH has concern regarding adding another layer of oversight between

DEH and community workers, due to increasing overhead costs and increased complexity of organization, oversight, quality assurance, and evaluation. The group agreed that the promotoras that would be tasked with door-to-door outreach would be under the direction of DEH. The group also agreed that community organizations would be well-suited to provide certain outreach activities, for example: flyering neighborhoods for particular events, conducting a school event, or planning and conducting outreach presentations at neighborhood events. We agreed that community organizations would be appropriate for these activities.

Conceptually, the organizational relationship would involve DEH contracting with a community organization to implement agreed-upon work-plans. Community organizations would be encouraged to develop brief workplan proposals (1/2 to 1 page) which could be funded. See chart below:



Community Worker
Duties:
Provide education/
outreach door to door
Staff community
events
Publicize testing

DEH intends to work with any neighborhood group who wants to be involved, but as with all participants in the program, quality work will still be required. The group agreed that if one neighborhood group is working on a small project (such as flyer distribution), it is best to give them the job for the whole neighborhood, vs. splitting it between groups which could lead to confusion.

Youth must be well supervised in terms of the quality of their work and for their protection while working within the community. If youth are to be involved in door-to-door work the supervision would include being sure the message was consistent throughout each and every neighborhood.

All community workers initially will be trained on lead hazards, outreach methods, informational materials, and evaluation mechanisms, and be provided with regular updates. See the "Promotora Handbook" for details regarding expectations for the promotoras. DEH will conduct regular updates and training sessions, initially envisioned to occur on an every-other-week basis, to ensure that outreach workers understand the information materials and expected outreach, tracking and evaluation mechanisms, and to address and resolve any problems that come up in the field. Training and oversight will be provided by DEH.

Some outreach and education activities will not be conducted by community members. DEH expects, at least initially, that DEH or another agency will conduct lead-safe renovation training for contractors and "do-it-yourself" homeowners. DEH also expects to be the primary point of contact for school nurses, principals, and other officials within the neighborhoods. It is expected that the Pediatric Health Specialty Unit, with assistance from ATSDR, will provide medical provider education. In general, however, DEH anticipates its role to be related to administering the program, providing training, reporting, evaluation, and planning and organization. While DEH would do some community contacts such as arranging school visits or setting up a realtor meeting, DEH anticipates doing very little of the direct community interaction. Instead, this direct community interaction would be done through community health workers, hired, trained, and supervised by DEH.

What

The community representatives agreed on what conceptual messages were important to be transmitted to residents. Table 4 includes the recommended conceptual messages.
Need to insert the Table containing preferred messages, previously distributed.

Community members also expressed strong preferences that we "don't reinvent the wheel" and that existing fact sheets and information materials be used. After identifying conceptual messages, the groups reviewed numerous existing informational materials to identify preferred fact sheets, identify materials that best captured the recommended conceptual messages, and identify needed modifications. Informational materials for review were obtained from numerous agencies, including EPA, ATSDR, NDHC, CDPHE, other state agencies, and other local agencies. Informational materials included simple book marks, fact sheets, coloring books, brochures, posters, and more detailed booklets. The materials were reviewed in English and in Spanish, to evaluate the adequacy of translation. Materials that were reviewed are included in the appendices (See appendix ___). Table 5 includes the materials that were evaluated, the preferred materials, and the modifications desired within the preferred materials in order to tailor them to the VB/I70 site.
Need to insert the Table that contains the materials evaluated, recommended ones to use, recommended changes, previously distributed.

Working Group Meeting
Brainstorm
3/25/2004

Renovation

Renovate homes safely

Keep kids away from loose or chipping paint

Wash hands and face after playing outside (kids and adults)

Safe home remodeling

Replace or paint over chipped paint on all surface

Steps to take

Home cleaning (windowsills and floors)
If adults/kids work in yards wash their clothing when they come in

Don't let small children play on the porch (old homes)

Don't let your kids play in dirt

Spray surfaces to be cleaned with water (to reduce dust)

Good hygiene prevents lead poisoning

Good nutrition helps prevent lead poisoning

Hygiene

How to protect yourself/kids
Good nutrition

Wash hands and face and wipe feet when kids come in

Don't let kid eat dirt or paint

Don't let your children eat dirt - and why

Wash window sills weekly

Resources

Real specific information on the help available

Soil removal is available

Attend community meetings to learn more about lead and arsenic

These are the resources available to reduce exposure to lead

Sources of poisons

Keys contain lead. Don't lead kids play with keys

Don't use cookware or pottery with lead based glaze

Multiple forms: lead paint, soil, pottery, etc

Ararcon and Greta are poison
Lead is in our neighborhood

Unexpected lead sources

Kid and testing

Have children under 6 yrs. tested for Pb based paint

Get your children tested

Follow up for elevated blood lead levels

Test children for exposure

Your health and your family's health may be at risk. Come in for a screening.

Test child

Get your kids tested

Home testing

Have you tested your family and house for lead lately? Now you can.

Test home and soil

If you have an older house, test it for lead paint

Lead and arsenic are bad

Lead poisoning...Still a problem

Lead-free is the way to be

Lead paint hurts kids for life!

Pb education for kids, parents

Effects of Pb on kids

Lead hurts kids

Lead and Arsenic are dangerous

You have the power

You can take actions to protect your kids

These are the steps I can take to reduce my exposure

Other

Culturally sensitive delivery

MATERIALS REVIEW

Title of Item	In General Liked It	Readability Level	Clarity of Message	Good Layout	Good Graphics	Contains Some of Our Message	Culturally Appropriate	Value/How Use
1. General information brochures, flyers, packets,								
a. You Can! Prevent Lead Poisoning! Here's How	**Use as a checklist. Very good for this.**							
b. El Programa de la Prevención de Envenenamiento por Plomo de Colorado	X	EASY	NOTE: the details on these first four (a-d) became irrelevant as group became more clear about what they liked and what they wanted. However, the info appears at the end of the chart. **Useable pieces are highlighted in LIGHT BLUE.**					
c. Cómo proteger su salud/How to Protect your Health	**X**	**VERY EASY**	**Change to legal size sheet, adding a column with contact info. Add window sills illustration. To handwashing, at end add "and before eating.:**					
d. Fact Sheet: Some Facts About Soil Sampling in the Neighborhood		9TH GRADE?	**ONLY THE PICTURE PAGES SEE SPECIFIC RECOMMENDATIONS**			YES		Weekly folders & posters for schools
e. LA INTOXICACIÓN CON PLOMO EN LOS NIÑOS	X	type font too small	good content + check list; needs good context & better stats	X	X	X	different vocabulary	Pediatrician's office - has all info, ecxplain, use as needed
f. what every parent should know about LEAD LEVELS IN CHILDREN	mixed review	needs work!	?		X	P. 7, 13	NOT	
g. Too bad the early warning signs of lead poisoning aren't this obvious/Lástima que las primeras señales del envenenamiento por plomo no sean tan claras	**X**	**X**	**X**	**X**	**X had discussion re tape, now ok with it**	**X**	**X**	**FOR ALL HOUSEHOLDS - primary piece - value is simple and readable**
h. (EPA) Lead Poisoning And Your Children	**Use as a poster only. Really like it for that purpose. Needs correct contact info (local) -- Spanish is available.**							
i. Is your home haunted by lead paint?	**Use info, but redo without Halloween theme & make a bookmark for mass distribution (schools, libraries...)**							
j. Protect your child from lead poisoning	© issue?	too high						
k. Protect Your Family From Lead In Your Home/Proteja a Su Familia en Contra del Plomo en su Casa					X	**Effects of lead -- doesn't appear anywhere else -- very important, also include infor from 3c, 3d, 3e**		**Create a special piece from this information - 1st visit use -- rest as editional info and/or for training**

l. What everyone should know about LEAD POISONING	X	language issue				Check for consistent message	**Spanish available**	**Could be an additional info piece**
m. ASTDR additional pictures 1-page color			**Simple pages for additional visits - also for schools, school nurses**					
n. NEW PIECE: Introduction card	**Simple piece that has persons name and organization and why they are there – with full contact info**							
2. Home remodeling information								
a. Renovating your home safely								
b. Reducción de lost riesgos de contaminación por plomo cuando remodela su casa								
c. Lead in your home: a parent's reference guide								
3. Specific information about lead and arsenic								
a. Datos sobre el plomo y arsénico en el suelo residencial (E/S) plus more in English								
b. Eating Vegetables from Your Garden... (E/S)	**An important piece but simplify (remove first paragraph & put at bottom: If your soil has not been tested call now! xxx-xxx-xxx; also change contact info)**							
c. Lead in Home Remedies	**Very important for these neighborhoods. Use on first visit!**							
d. Otros Orígenes de Plomo	**Merge these two with English on one side, Spanish on the other, use for training & later visits**							
e. Possible Sources of Lead								
4. Blood lead testing								
a. Child Lead Poisoning is Preventable/E. envenenamiento infantil con plomo se puede prevenir	**Need something for 1st visit as the under 6 handout – this can be the basis of something new or different, or simply be edited.**							
b. ¿Qué significan los valores de plomo en la sangre de su niño?/What does you child's blood lead level mean?	Training use, after corrected							

5. Nutrition	
a. Alimentos que Combaten El Envenenamiento con Plomo	Rework and use – no fighter. Change color scheme, use a different, more appropriate Spanish menu
b. Lead Poisoning Nutrition and Children: what you should know/El envenenamiento con plomo la nutrición y los niños: lo que usted debe saber	
c. Lead and a Healthy Diet	
d. Combata el Envenenamiento con Plomo con una dieta saludable	Great recipes – general handout SECOND visit; use as is, available in English & Spanish
e. Iron/Calcium/Vitamin C	
6. For Children	
a. Let's Learn About Lead Poisoning	for homes with children, SECOND visit; and for preschool/day care sites
7. For Landlords	
a. The Lead-Based Paint Pre-Renovation Education Rule b. Lead Paint Can Poison: Are Your Tenants at Risk?	Combine these two pieces and send them to all landlords. Also use with contractors.
8. Home Investigation	
a. Testing Your Home for Lead in Paint, Dust, and Soil	For Northeast Denver Housing Center (NDHC)
9. Temporary Measures to Reduce Lead Hazards	
a. Lead Hazards & the Removal of Lead-based Paint	For remodel packet; homes with contractors, including guests; paint stores
b. Proteja a Sus Hijos del Plomo: Como Limpiar Las Ventanas Correctamente/Keep Your Children Safe From Lead! How to Clean Your Windows the Right Way	Use only for homes with children under 6 and adapt to Denver
c. Temporarily Reducing Lead Paint Hazards by Cleaning	Use if home or child is positive for lead

10. Provider Education								
a. Colorado's Lead Poisoning Prevention Program	**All the responsibility of ATSDR**							
b. Childhood Lead Poisoning in Colorado								
11. Lead Hazards from Work Sites								
a. New piece ATSDR may have this	**Due to the hazard of children picking up lead from clothing and hands of people who work with lead.**							
General Items details from above:	**In General Liked It**	**Readability Level**	**Clarity of Message**	**Good Layout**	**Good Graphics**	**Contains Some of Our Message**	**Culturally Appropriate**	**Value/How Use**
a. You Can! Prevent Lead Poisoning! Here's How	X	OK	? Needs better title; good check list	Cluttered	X	X - some key things	X	
b. El Programa de la Prevención de Envenenamiento por Plomo de Colorado	X	EASY	1978, not 1940; --> lead glaze - U.S.	X	X	X	needs notice: English/ Spanish on other side	
c. Cómo proteger su salud/How to Protect your Health	X	VERY EASY	X - add window sills	X	X	X		
d. Fact Sheet: Some Facts About Soil Sampling in the Neighborhood	X in use now, box of info with #s	9TH GRADE?	X - check some numbers, old	X	NONE - map has unhelpful placement	YES	???	Weekly folders & posters for schools
OTHER COMMENTS:								
Important for ALL double sided two-language pieces -- need notice: English/ Spanish on other side								
In Spanish: INTOXICACIÓN is better than envenenamiento to refer to poisoning OR use both words								

Where

Preferred venues for information delivery included door to door contacts as the primary mechanism, but not limited to door-to-door. Contacts and information dissemination is also important at health fairs, community events, church events, school presentations, science fairs, and science class presentations. In addition, programs to reach realtors and renovators are very important, and need to be geared towards locations/venues where these people can be successfully reached. Information should be available at hardware and paint stores, for example, to reach contractors or people who are re-painting their own homes.

When

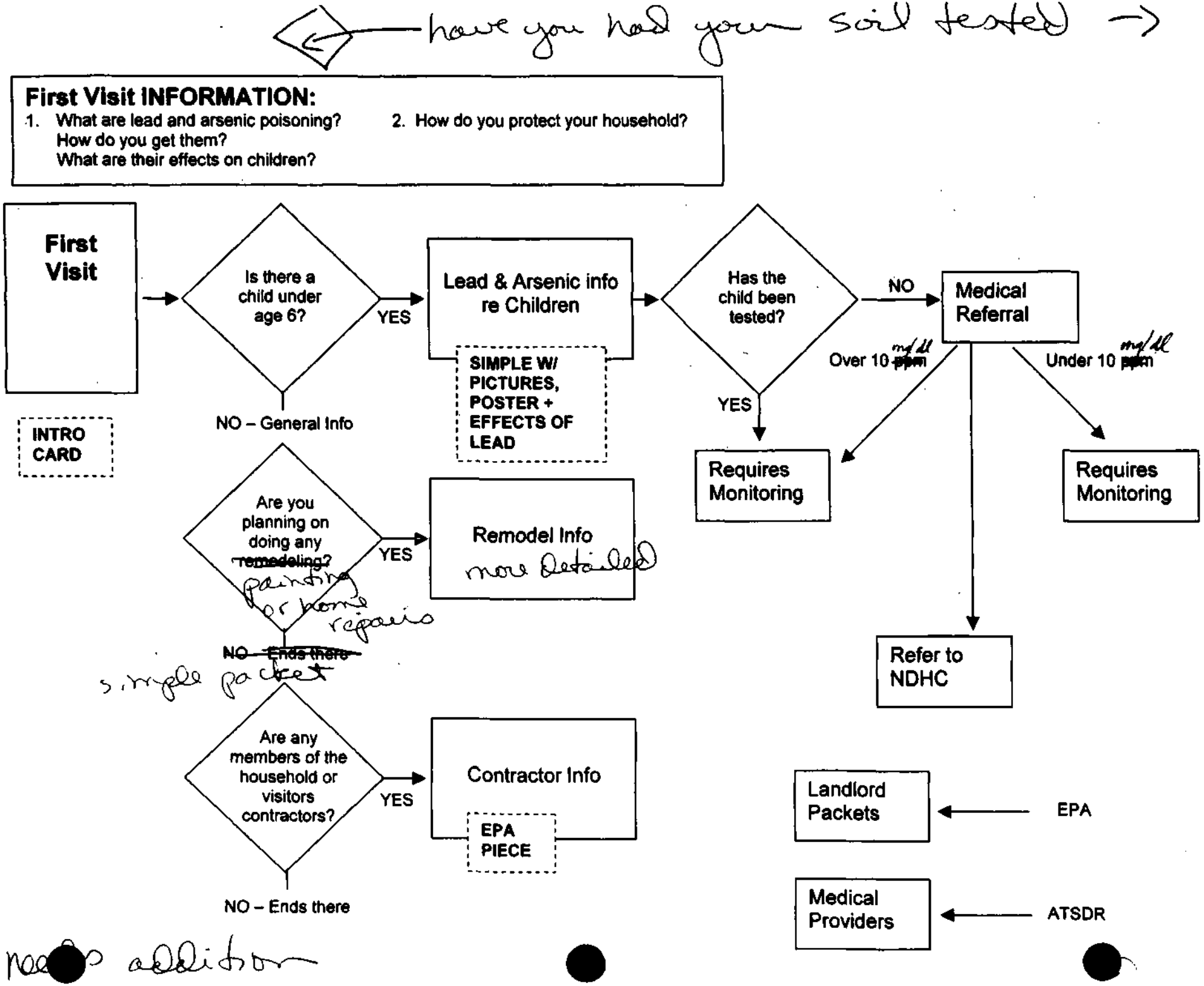
Contacts must be made when people are expected to be home, so some evening and weekend visits will need to be made. If a daytime contact is not successful at a particular home, an evening one may need to be attempted. In order to actually discuss lead and arsenic issues at each home at least once per year, numerous attempts may need to be made.

How

A flow-chart was developed and agreed to that describes the expected conversations once a successful contact has been made. Conversation paths concerning the hazards of lead poisoning, has your yard soil been tested, have your children been tested, and are you considering any home repairs or re-painting were discussed and developed. It was agreed that information concerning each of these paths would be presented, however, more detailed information on a particular topic would be presented if appropriate. For example, if a family had children under six, the importance of blood lead testing would be emphasized more strongly than if the residents were older with no children visiting the home. As another example, if a resident were considering home repairs, information on safe home renovation would be stressed, and more detailed materials would be provided.

Insert flow chart developed by Ken

A promotora "tool kit" would also be developed, that would consist of 3-ring binders made up for blocks or block groups. The binder would contain checklists prepared for each home on the block, such that as contacts were attempted and made, they could be tracked. Information provided to


have you had your soil tested
First Visit INFORMATION:
1. What are lead and arsenic poisoning? How do you get them? What are their effects on children?
2. How do you protect your household?
First Visit
INTRO CARD
Is there a child under age 6?
YES
NO – General Info
Lead & Arsenic info re Children
SIMPLE W/ PICTURES, POSTER + EFFECTS OF LEAD
Has the child been tested?
NO
YES
Over 10 ~~ppm~~ mg/dl
Under 10 ~~ppm~~ mg/dl
Medical Referral
Requires Monitoring
Requires Monitoring
Refer to NDHC
Are you planning on doing any ~~remodeling?~~ painting or home repairs
YES
Remodel Info
more detailed
~~NO – Ends there~~
simple packet
Are any members of the household or visitors contractors?
YES
Contractor Info
EPA PIECE
NO – Ends there
Landlord Packets
EPA
Medical Providers
ATSDR
needs addition

each home could also be tracked, as could specifics regarding that home. For example, for the home located at 4504 XXX Street, after a successful initial contact, the tracking system would contain information regarding the number of children at that home, whether the yard had been tested, what information had been discussed with the resident, and any notes for further conversations. Likewise, if the contact attempt at 4508 XXX street was unsuccessful, the notebook would reflect the unsuccessful attempt and the need for repeated contacts. Tool kits would also contain needed informational materials.

The binders would be useful in reviewing promotora progress, identifying problems, identifying homes needing repeated visits, conducting evaluation of program and individual performance, and ensuring that necessary follow-up is provided, even if a replacement promotora is needed to provide the follow-up. See appendix ___ for the promotora tool kit.

Evaluation mechanisms

All agreed that on-going evaluation of the program is necessary. Evaluation mechanisms need to be relatively simple, at an appropriate literacy level, and in English and Spanish. The group agreed to use an evaluation tool used by DEH in its "Raising Awareness" lead poisoning prevention grant, which utilizes the Transtheoretical stages of change model to evaluate progress in changing behaviors. The tool is presented below:

Insert stages of change evaluation tool

Process evaluation tools will also be used to track contacts made, promotora awareness, and materials distributed.

Reporting mechanisms

- monthly report on activities conducted, contacts made, plans for next month, problems, resolution
- quarterly report (or semi-annual?) with preliminary evaluation data
- annual report, evaluation results
- meetings with community (or community oversight) – frequency, content, schedule

On-going communication, feedback, and revision of above

- meetings with community (or community oversight) – frequency, content, schedule

Promotora Curricula – Training Manual and Toolkit

This is just a strawman – we need to compare and add/subtract, utilize existing information that's been developed for VB, and make appropriate for these communities

Purpose of Manual

Project Description

What is a Promotora/ Lay Health Advisor

- Characteristics
- Who can be a promotora/ lay health advisor

Expectations

- Role of promotora
- Listening
- Duties (attend training, share knowledge, document activities, attend meetings, communicate)
- Promotora agreements
- Record-keeping
- Stipend/Payment
- Reporting

Understanding Lead

- What is lead?
- What is lead poisoning
- What are the main sources of lead poisoning
- How lead gets in the body
- What are the symptoms?
- Importance of testing

Understanding Arsenic

- Same Qs as lead

- Prevention
  - Screening – importance and where offered
  - Handwashing
  - Housekeeping
  - Where children play
  - Toys and shoes
  - Nutrition
- Site Cleanup and other cleanup activities
  - Home inspections
  - Soil Cleanup
  - Coordination
  - Lead Paint Resources
- Frequently Asked Questions
- Toolkit and tracking mechanisms
- Educational Materials
- Other Resources

In the process of protecting my children from lead hazards by...

1. Reminding them to wash their hands before they eat
I know nothing about this (Un-informed)

I have not done it yet (Thinking)

I've done it once or twice (Starting)

I'm doing it more often (Really Trying)

I'm doing it often (Action)

I'm doing it 3+ times a day (Succeeding)

2. Reminding them to wash their hands before they sleep
I know nothing about this (Un-informed)

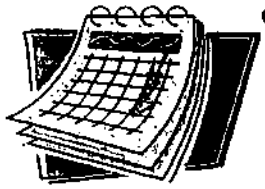
I have not done it yet (Thinking)

I've done it once or twice (Starting)

I'm doing it more often (Really Trying)

I'm doing it often (Action)

I'm doing it 2+ times a day (Succeeding)

3. Washing the window sills and the children's toys once a week 

the window sill

I know nothing about this (Un-iformed)

I have not done it yet (Thinking)

I've done it once or twice (Starting)

I'm doing it more often (Really Trying)

I'm doing it often (Action)

I'm doing it 1+ times a week (Succeeding)

In the process of protecting my children from lead hazards by...

4. Taking them to the doctor for a blood lead test

I know nothing about this (Uninformed)

I have not done it yet (Thinking)

I've done it with my young children (Action)

I'll do it with all my babies (Succeeding)

Supportive Evaluation Guidelines

The goal of most community health worker home visiting programs is for the promotora to develop a relationship with the people she contacts about the issues she is addressing, so evaluation shouldn't be seen as a major effort. The persons whom we provide education to should be aware that part of participating in the program may include participating in the evaluation. Many times just in talking with people about lead poisoning prevention they will let us know where they are in learning about the behaviors we would like to evaluate. Try to keep track of their responses, and then fill out the evaluation form based on what you have heard. At the end of the session you might say something like: "We really want to help people learn about lead hazards, we think that this program where we go door to door might help people, but in order to be sure, we have to evaluate it. It's pretty easy. We know that learning is a process, very few people know and do all of the steps from the beginning. When we learn new things, we do it in stages, sometimes we know nothing about a topic, then we hear about it and start thinking about it, then we start doing it once in a while, then we get better and do it more often, then we do it even more often until we are doing the new behavior all the time.

When they explained about this in training they used learning to use cold water for drinking, cooking and making formula or other drinks as an example. I had no idea that we were supposed to use cold water for these things; I mean my mom taught me to make rice and beans with hot water from the tap and I always used warm water to make the babies' formula. During the training they told us about how lead can move from the pipes into the water, and especially into hot water and that we should let the water run for a minute and then use cold water for cooking or drinking, so after the training I was able to say that I was thinking about using cold water to cook, drink and make formula. I went home and I started doing it once in a while when I remembered. Then I put up the poster they gave us about preventing lead poisoning and I started doing it more often. Now I do it almost all the time. Sometimes when I get up a night to get a drink of water, I still forget or don't want to bother, but most of the time I use cold water for drinking and cooking. Sometimes I even heat up water to use when I cook beans or rice."

"In order to find out if this method of helping people learn to protect themselves from lead and arsenic work, we decided that we would start with something simple, like where are you in the learning process of teaching kids to wash their hands before they eat. We know that almost all parents have tried to teach their kids to wash their hands before they eat, and we mark down that you have your kids wash their hands before they eat most or all of the time. Which answer is right for you?" Next, ask the evaluation question(s) you haven't heard the answer to: "I would like to ask you where you are in the process of learning to...(see evaluation tool) after our discussion about lead and arsenic today. I heard you say earlier that you didn't know until we talked about X behavior that you were supposed to be doing X, is this correct? Thank you so much for talking with me today."

"In order to see if this program has really helped people learn, the supervisors are going to pick names at random and ask people basically the same questions you answered today. We will have a small prize for those who decide to help us see if this program works. Remember these questions will be asked just to see if we need to make changes in the program, not to judge you. Some people don't remember what was talked about at all; some people say that they only do something once in a while. There is no wrong answer; all the answers help us learn how to help other people. If you have come up with any tips that might help your neighbors

and others protect themselves and their families from lead and arsenic, please share them with us. Many times when we call people to find out how they are doing with the lead poisoning prevention behaviors they help us by telling us what has helped them change their behaviors so we can help others. We really appreciate the help and advice that people give us."

"If your name is picked and you decide to help us, we will talk with you for about 10-20 minutes to see how the program is working about 6-8 weeks after our last visit and then again after 6-12 months have passed. We will have a small prize for those who help us by participating in the evaluation. The evaluation is not to judge **you**; we want to see what we can do to make the program better."

This method of evaluation is meant to be supportive of the person being interviewed! The promotoras or DEH staff will conduct the evaluations and will have or work to develop a relationship with the interviewee. You must consider the interviewee's feelings when doing the evaluation and make them feel as comfortable as possible, both because they are doing the program a favor by letting us evaluate them and also to encourage the interviewee to be honest with us. Our job is not to judge the client's knowledge, learning and behaviors but to find out where the interviewee is in the process of learning and help them learn more (or to allow them to teach us something new!)

A sample script for an evaluation interview using the tool below to record the responses follows. These evaluation interviews need to be tailored to the individual. This is very important, for example what if we ask about hand washing and the child or person has no hands? Special circumstances should be written in the family's notebook. The script and response written below is pretty much what we would expect in a "normal" evaluation interview.

Imagine that you the evaluator are doing an interview with a parent.

Evaluator: Hi, how are you. Do you remember we talked about lead a few weeks or X months ago? I just came by (or called) to see how you are doing with the lead poisoning prevention steps.

Parent: I'm kind of busy right now. Can we talk when I take the kids to the park?

Evaluator: Sure, what time?

Parent: Oh about 1:00.

Evaluator: OK see you at the park at 1:00

At 1:00:

Evaluator: Hi, how's it going? Oh, I remember you have a little boy about my son's age. How is he doing? My son is driving me nuts because he doesn't like to wash his hands, how's it going for your son? If you have any tips about getting kids to wash their hands I would appreciate the help.

Parent: "Oh, he's really good at washing his hands, I have a stool for him to stand on, and he has his own special soap, so he washes his hands all the time before he eats."

Evaluator: How about before he takes a nap or goes to bed? My child gets so sleepy; I have a hard time getting him to wash his hands before he lies down.

Parent: Well, I'm having a hard time with that too. I can get him to do it once in a while.

Evaluator: Well another mom told me that if her little one doesn't wake up enough to wash her hands, she at least wipes them with a wet washcloth or paper towel, so if the child puts her hands on or in her mouth while she sleeps, they are cleaner than before.

Parent: Oh that's a good idea.

Evaluator: When the promotora lady came to talk to us about the lead, before I started working with the program, I didn't know how important it was to clean the window sills every week. I mean I clean my house and everything, but I didn't know about the window sills. What did you think about that?

Parent: I didn't know that either, but now that I know I just wash the window sills when I wash the floors every few days. I am more careful about washing out and rinsing my rags after I clean too.

Evaluator: That's good. I hadn't thought about that before either, I just rinsed them out, before. I'm getting some good advice from you! What about taking your child in for lead testing? Some people have said that they had trouble getting the tests and we wanted to hear about your experiences.

Parent: Well, I didn't have too much of a problem. They had a clinic here at the school in my neighborhood, so I took my kids there. The little one didn't have any problems. They didn't want to test the older kids though and I'm kind of worried about them. My oldest he's twelve now and he still likes to eat dirt. I constantly have to stop him even though he's a big boy.

Evaluator: Umm, did you tell the ladies taking the blood that your older son likes to eat dirt?

Parent: Well no, it's kind of embarrassing and I thought they mainly wanted to know about the little one. It's kind of too late for the oldest anyway.

Evaluator: Well, I don't think it's too late. Kids who eat dirt can get too much arsenic or lead in their bodies and it could cause some health problems later on. There is a clinic at X school this Thursday and at X health fair this weekend. Do you think you can take him in and get him tested?

Parent: Well, I guess I could do that, but he won't like the idea.

Evaluator: How about taking him in for a checkup, you could say it's for school, since they want them to have checkups for school anyway?

Parent: Well, his regular doctor isn't here anymore; they shut the clinic down you know. I don't know where to take him.

Evaluator: It's too bad about the clinics closing, they told us that people who used to go to our local clinic are now being seen at X clinic. I think your child's doctor might be there now. I can check for you if you would like.

Parent: Yes, that would be good. I really liked Dr. X, but if he's not close by anymore, I still have to take the kids in for their checkups at the new place and I can ask the Dr. to test the older kid. Why do you think he eats dirt? Is it just a habit?

Evaluator: I don't know, some times kids or pregnant women who are picky eaters or who don't get enough of certain vitamins or minerals crave dirt, but you should take him in to the doctor to find out for sure what's going on. I'll call you about your favorite doctor tomorrow ok? And then you can make an appointment for your child. Let me know if there is anything I can do to help ok? Would it be ok for me to call and see how it worked to get your older son tested? I want to be sure that they treated you right.

Parent: OK

Evaluator: Thanks for talking with me. Maybe, I'll see you at the health fair.

Then the evaluator fills out the evaluation tool. Later the evaluator makes a copy and gives the original to the promotora to go in the family's notebook.

In the process of protecting my children from lead hazards by...

1. Reminding them to wash their hands before they eat
I know nothing about this (Un-informed)

I have not done it yet (Thinking)

I've done it once or twice (Starting)

I'm doing it more often (Really Trying)

I'm doing it often (Action)

I'm doing it 3+ times a day (Succeeding)

2. Reminding them to wash their hands before they sleep
I know nothing about this (Un-informed)

I have not done it yet (Thinking)

I've done it once or twice (Starting)

I'm doing it more often (Really Trying)

I'm doing it often (Action)

I'm doing it 2+ times a day (Succeeding)

3. Washing the window sills and the children's toys once a week

the window sill

I know nothing about this (Un-informed)

I have not done it yet (Thinking)

I've done it once or twice (Starting)

I'm doing it more often (Really Trying)

I'm doing it often (Action)

I'm doing it 1+ times a week (Succeeding)

In the process of protecting my children from lead hazards by...

4. Taking them to the doctor for a blood lead test

I know nothing about this (Uninformed)

I have not done it yet (Thinking)

I've done it with my young children (Action)

I'll do it with all my babies (Succeeding)

APPENDIX B-4

CEASE & VB/I-70 CHP Working Group Meetings

MEETING HANDOUTS

Arsenic in Soil
Lead in Soil
EPA Anuncia la Decisión Final de Limpieza para Suelos Residenciales en el Sitio de Superfondo VB/I-70
EPA Announcements the Final Cleanup Decision for Residential Soils in the VB/I-70 Superfund Site
Record of Decision

Arsenic in Soil

Soil and Your Health

Doctors and scientists from the Agency for Toxic Substances and Disease Registry (ATSDR) have looked at test results from soil collected in you neighborhood to see whether the amount of arsenic is high enough to cause health problems for people who live in the area. ATSDR found that the amount of arsenic in some yards might be a health concern for some children and adults.

How Can Arsenic Get into the Body?

Soil that contains arsenic can get into your body:

- While playing
- While gardening
- While working in your yard

We sometimes touch things that have dirt or dust on them and the put our hands or other items into our mouths. When this happens, small amounts of arsenic can get into our bodies along with the dirt or dust.

Swallowing these small amounts of soil with arsenic usually will not cause health problems. But if arsenic in soil is too high, children and adults might become sick.

Adults and Arsenic

Arsenic levels and cancer are a concern for people who grew up in a house with high levels of arsenic in soil and who continued to live in the house as adults. These people could have a higher chance of getting certain types of cancer, such as skin cancer and cancer of the lung, bladder, kidney, and liver.

Children and Arsenic

Soil-Pica

Some preschool children eat large amounts of soil (1 teaspoon or more) while playing and exploring their world. This is called soil-pica behavior.

Soil-pica behavior is especially a concern for children who live in areas with high arsenic levels in soil. After eating large amounts of soil with high levels of arsenic, these children could have health problems, such as:

- Nausea or upset stomach
- Stomach cramps
- Vomiting
- Diarrhea
- Swelling of the face (especially around the eyes)
- Headaches

You Can Protect Yourself

Here are a few things that you can do to protect your family from arsenic in the soil. These tips are especially important if you live in an area with high arsenic levels in soil. These tips are good steps for everyone to follow:

- Watch your preschool children when they are playing outside. Keep them from eating dirt or mud and from putting toys in their mouths.
- Talk to older children about the possible danger of eating soil.
- Encourage preschool children to play in areas of the yard that are covered by grass.
- Talk to adults about not eating soil or mud from their yards.

Where Can I Get More Information About Exposure to Arsenic in Soil and Soil-Pica Behavior?

Chris Poulet, ATSDR Denver
303-312-7012

Margaret Schonbeck, Colorado Department of Public Health and Environment
303-692-2636

Lead in Soil

Soil and Your Health
Doctors and scientists from the Agency for Toxic Substances and Disease Registry (ATSDR) have looked at test results from soil collected in you neighborhood to see whether the amount of lead is high enough to cause health problems for people who live in the area. ATSDR found that the amount of lead in some yards is at levels that are of concern for some children.

Common Sources of Lead

- Soil
- Old house paint (especially houses built before 1960)
- Dust
- Plastic window blinds
- Imported pottery/dishes
- Home remedies (Azarcon, Greta)
- Drinking water

How Can Lead Get into the Body?
Soil that contains lead can get into the body in many ways. When children play, they sometimes touch things that have dirt or dust on them and then put their hands or other items into their mouths. When this happens, small amounts of lead can get into their bodies along with the dirt or dust.

Swallowing small amounts of soil with lead usually will not cause health problems. But if the amount of lead in soil is too high, children might become sick.

Possible Health Effects from Lead
Most children with lead poisoning don't have symptoms. The only way to know if a child has lead poisoning is to get their blood tested. However, when children have high levels of lead in their bodies, they might have health problems, such as:

- Hearing problems
- Speech, language, and behavior problems
- Lowered intelligence scores
- Delays in development
- Trouble sleeping
- Poor muscle coordination
- Loss of appetite

Ways to Prevent Children from Getting Lead Poisoning

- Wash child's hands at least 5 times per day and always before eating and taking naps
- Wash toys frequently
- Give them foods rich in Vitamin C, calcium, and iron
- Clean floors and window sills with detergent and water
- Wipe up any paint chips with a wet sponge, rag, or paper towels. If you suspect the paint has lead, throw the sponge, rage, or paper towels away after cleaning
- If you are remodeling an older home, NEVER dry sand or scrape lead based paint
- Encourage your children to play in grassy areas instead of on dirt.

Where Can I Get More Information About Exposures to Lead in Soil?
If you think your child has been exposed to lead, you may contact:

Mishelle Macias
Colorado Department of Public Health and Environment
303-692-2622 or 303-692-2700

Gene Hook
City and County of Denver
720-865-5452

EPA
United States
Environmental Protection
Agency

Region 8
999 18th St., Ste. 300
Denver, CO 80202

Colorado, South Dakota,
North Dakota, Wyoming,
Montana, Utah

EPA Anuncia la Decisión Final de Limpieza para Suelos Residenciales en el Sitio de Superfondo VB/I-70

Denver, Colorado **Octubre 2003**

El Registro de Decisión y otra información referente al sitio VB/I-70 se pude encontrar en estas direcciones:

Coalición Cross Community, 2332 East 46th Street

Biblioteca Valdez-Perry
4690 Vine Street

Biblioteca Ford Warren
2835 High Street

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http://www.epa.gov/region08/superfund/sites/co/vbi70.html

o contacte:
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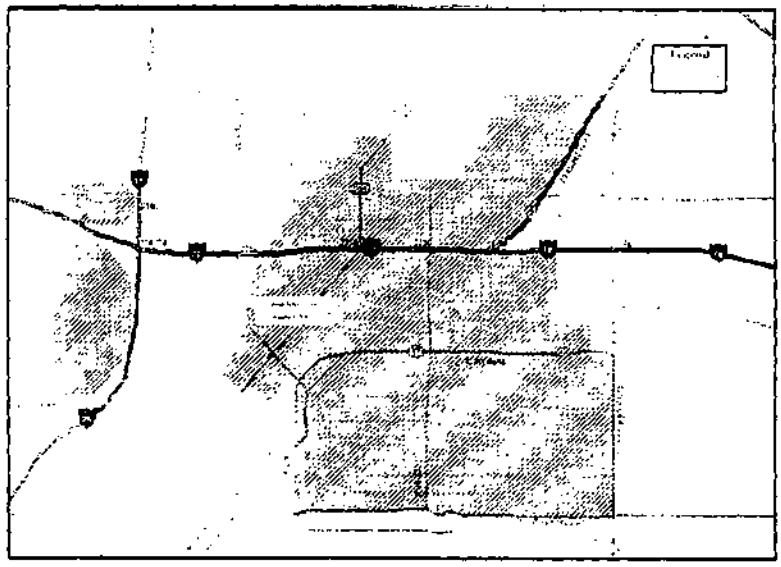
Introducción

La Agencia de Protección Medioambiental de los Estados Unidos (EPA) se enorgullece en anunciar la decisión final de limpieza para la porción de suelos residenciales del sitio de Superfondo del Vasquez Boulevard/Interestatal 70 (VB/I-70) en el noreste de Denver. La EPA ha estado trabajando durante más de cuatro años con representantes de la comunidad local, el estado, y agencias del gobierno federal para investigar los elevados niveles de plomo y arsénico en los suelos de los jardines de la zona.

El 25 de Septiembre de 2003, la EPA y el Departamento de Salud Pública y Medioambiente de Colorado (CDPHE) firmaron un Registro de Decisión (ROD). El Registro de Decisión es el documento formal que describe el plan de limpieza. Este pliego de datos discute los detalles del Registro de Decisión y contesta varias de las preguntas más comunes acerca de la limpieza.



VB/I-70 Superfund Site

EPA

La Comunidad

El sitio VB/I-70 incluye los vecindarios de Denver de Cole, Clayton, Swansea, Elyria, suroeste de Globeville, y la parte norte del Parque Curtis. De acuerdo al Censo de 2000, la población total viviendo en estos vecindarios es 17545, incluyendo, aproximadamente, 2400 niños de seis años de edad o menores. La EPA considera el Sitio de Superfondo VB/I-70 un Sitio de Justicia Medioambiental. Esto es debido a que los residentes de este vecindario son predominantemente minorías con bajos ingresos. Es también debido a que el área tiene más fuentes de contaminación medioambiental que las que normalmente se encuentran juntas en otras zonas de la ciudad. Estas fuentes de contaminación incluyen fuentes de origen industrial, otros sitios de Superfondo, y principales corredores de transporte.

Debido a la naturaleza de Justicia Medioambiental de la comunidad, la EPA ha trabajado duramente durante esta investigación medioambiental para ser todo lo participativa y justa posible, y continuará actuando de esta manera durante la limpieza. Los vecindarios afectados están representados por varios representantes de la comunidad. Su continua participación y comentarios han sido muy valiosos para la EPA durante todo este proceso, y han llevado a una decisión de limpieza apoyada por la comunidad así como por la EPA y las demás agencias involucradas.

La Investigación

El CDPHE conllevó una limpieza en Globeville durante los 90, cerca de los vecindarios de VB/I-70, que indicó que algunos de los jardines de los vecindarios de VB/I-70 podrían contener altos niveles de metales pesados. En 1998, la EPA comenzó a investigar la naturaleza y extensión de la contaminación metálica en los jardines de VB/I-70. Durante los siguientes años, en colaboración con el CDPHE, otras agencias gubernamentales, y los representantes de la comunidad, la EPA muestreo extensivamente los jardines y produjo numerosos estudios. Los resultados mostraron que plomo y arsénico son las dos fuentes metálicas primarias de preocupación en los suelos de VB/I-70. Aprendimos que algunos jardines tiene niveles de plomo o arsénico lo suficientemente altos que la EPA removerá y reemplazará esos suelos para proteger la salud de los residentes que allí viven.

La EPA ha reemplazado suelos en cerca de 50 hogares, y está actualmente reemplazando suelos en más de 140 hogares este otoño. Estos jardines tienen algunos de los valores más elevados de plomo y/o arsénico registrados, y presentan un riesgo para la salud de los residentes de la zona.

La Decisión Final

El Registro de Decisión de VB/I-70 (ROD) es un documento que describe las decisiones finales de limpieza de la EPA para aquellos jardines que aún contienen niveles elevados de plomo y/o arsénico en los vecindarios de VB/I-70. La limpieza consistirá de tres partes: removido del suelo y reemplazamiento, programa de salud para la comunidad, y continuación del muestreo de los suelos.

Removido del Suelo: La EPA removerá y reemplazará suelos en jardines donde el contenido medio de plomo esté por encima de **400 partes por millón (ppm)**. La EPA también removerá y reemplazará suelos en jardines donde el contenido más alto en arsénico está por encima de **70 ppm**. El removido de estos suelos es de carácter voluntario y se realizará sin coste alguno para los propietarios. La EPA estima que aproximadamente 850 jardines requerirán del removido y reemplazamiento del suelo. Este trabajo espera completarse en un plazo de tres a cinco años.

Programa de Salud para la Comunidad: Algunos niños del sitio de Superfondo VB/I-70 tienen altos niveles de plomo en la sangre lo suficientemente altos para presentar un riesgo para su salud. Sin embargo, los niños pueden estar expuestos a diferentes fuentes de plomo, como la pintura plomada de sus casas. Así también, algunos niños exhiben el comportamiento denominado Pica. Estos niños intencionalmente se comen cantidades inusualmente grandes de tierra, y, en consecuencia, están expuestos a plomo y arsénico en el suelo en bajos niveles de concentración, así como a bacterias y otras substancias dañinas.

Como residentes y niños en VB/I-70 están en una zona de Justicia Medioambiental. Y están expuestos a una variedad de impactos ambientales, la EPA diseñó el Programa de Salud para la Comunidad como complemento al removido de los suelos. El Programa de Salud para la Comunidad es un programa de acercamiento que proveerá a los residentes con *información sobre la exposición al plomo en general*, el comportamiento Pica, y otros varios temas de salud medioambiental.

El Programa de Salud para la Comunidad proporcionará pruebas para cualquier niño de la zona VB/I-70 para la exposición al plomo y al arsénico. Si los resultados de las pruebas de cualquier niño presentan alto contenido en plomo o arsénico, el Programa de salud para la Comunidad pondrá a disposición del cuidado de la salud del niño profesionales en las áreas del cuidado de la salud y de la salud medioambiental.

El Programa de Salud para la Comunidad será adaptado a las necesidades individuales de cada

vecindario. El Programa continuará durante toda la duración del trabajo de limpieza.

Muestreo de los Suelos: Desde el comienzo de la investigación del sitio VB/I-70, la EPA muestreó suelos residenciales en más de 3000 de los 4000 hogares afectados en la zona. Sin embargo, cerca de 1000 jardines en el área de VB/I-70 aún no han sido muestreados. El muestreo del suelo se lleva a cabo, de forma gratuita, en cualquier propiedad dentro de los límites de la zona VB/I-70, aunque para ello la EPA necesita obtener acceso para muestreo otorgado por el propietario. Durante toda la duración de la limpieza, la EPA continuará sus intentos de ganar acceso a aquellas propiedades que aún no hayan sido muestreadas.

En general, el plan final de limpieza para VB/I-70 costará unos $31 millones aproximadamente. El plan se basa en la Alternativa 6 del Plan de Limpieza Propuesto de la EPA presentado en Mayo de 2003. La EPA recibió comentarios del público referentes al Plan Propuesto durante 30 días. Basándose en esos comentarios y el apoyo de la Alternativa 6 por parte de los representantes comunitarios, el CDPHE y otras agencias, la EPA seleccionó la Alternativa 6 como el plan final de limpieza. El remedio seleccionado cumple todos los requisitos y mandatos federales y estatales y protege la salud humana y el medioambiente.

Preguntas más Frecuentes

En base a comentarios formales del público, discusiones informales de grupo, y conversaciones individuales, la EPA está al tanto de ciertas inquietudes y preguntas referentes al plan final de limpieza y a la investigación medioambiental en general. Algunas de estas preguntas se presentan a continuación.

Q. ¿Por qué algunos jardines están siendo limpiados y otros no?
A. No todos los jardines necesitan ser limpiados. Solamente 850 de los 4000 hogares en la zona tienen niveles de plomo y/o arsénico lo suficientemente elevados como para necesitar ser limpiados.

Q. ¿Cómo es posible que mi vecino necesite que su suelo sea limpiado y yo no, si vivimos puerta con puerta?
A. Hemos descubierto que es muy normal que un suelo tenga altos contenidos en plomo y/o arsénico y el suelo de la propiedad colindante presente muy bajos niveles de las mismas substancias. Esto es debido en parte a la fuente de contaminación y el historial de la propiedad.

Q. ¿Cuáles son los requisitos que necesito cumplir para que mi suelo sea limpiado?
A. La EPA muestreará su suelo de forma gratuita. Si usted tiene niveles de plomo por encima de 400 ppm o de arsénico superiores a 70 ppm, usted cumple los requisitos para que su suelo sea limpiado.

Q. ¿Cuánto tiempo he de esperar para que mi suelo sea limpiado?
A. Todo el proyecto de limpieza llevará de tres a cinco años. Ahora mismo, no podemos decirle si su suelo será limpiado el año próximo o en uno de los años siguientes.

Q. ¿Ha sido muestreado mi suelo?
A. Para encontrar la respuesta simplemente llame a uno de los representantes de la EPA listados al final de la primera página de esta hoja de datos.

Q. ¿Puede la EPA remover pintura plomada del exterior e interior de nuestra casa, asimismo como del suelo?
A. A través del Programa de Salud para la Comunidad, la EPA coordinará los esfuerzos de colaboración entre la EPA y otras agencies federales y estatales que puedan aportar fondos y llevar a cabo el removido de la pintura plomada. El dinero presupuestado para los sitios de Superfondo puede ser empleado para el removido de la pintura plomada exterior de las casas donde el suelo esté siendo reemplazado, pero únicamente después de haber demostrado que no hay otras fuentes disponibles de financiación. El dinero de los sitios de Superfondo no puede emplearse en el removido de la pintura plomada del interior de las casas.

Q. ¿Cuándo se nos darán más detalles con respecto al Plan de Salud para la Comunidad?
A. El Plan de Salud para la Comunidad se desarrollará en un esfuerzo de colaboración que comenzará este invierno. La comunidad recibirá información tan pronto como este disponible.

Próximos Pasos

Durante este otoño, la EPA continuará agradeciendo el acceso a cualquier jardín que no haya sido muestreado dentro de la zona de VB/I-70. Asimismo, la EPA finalizará el removido y reemplazamiento de más de 140 jardines con los niveles más altos de plomo y arsénico.

Este invierno, la EPA, el Departamento de Salud Medioambiental de Denver, representantes de la comunidad, y otras organizaciones y agencias comenzarán a desarrollar los detalles del Plan de Salud para la Comunidad. Busque información sobre el Plan en su buzón de correos durante los próximos meses.

La próxima primavera, la EPA comenzará el removido y reemplazamiento de aquello suelos con niveles de plomo superiores a 400 ppm y/o niveles de arsénico por encima de 70 ppm. Si su suelo necesita limpieza, La EPA se pondrá en contacto con usted por teléfono o por correo antes de la limpieza.

United States
Environmental Protection
Agency

Region 8
999 18th St., Ste. 300
Denver, CO 80202

Colorado, South Dakota,
North Dakota, Wyoming,
Montana, Utah

EPA Announces the Final Cleanup Decision for Residential Soils in the VB/I-70 Superfund Site

Denver, Colorado **October 2003**

The Record of Decision and other VB/I-70 information can be found at these locations:

Cross Community Coalition, 2332 East 46th Street

Valdez-Perry Library
4690 Vine Street

Ford Warren Library
2835 High Street

EPA Records Center
999 18th Street, 3rd Fl.

or, visit the Web site at:
http://www.epa.gov/region08/superfund/sites/co/vbi70.html

or contact:
Victor Ketellapper, EPA Project Manager
(303) 312-6578;

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para Espanol, llame
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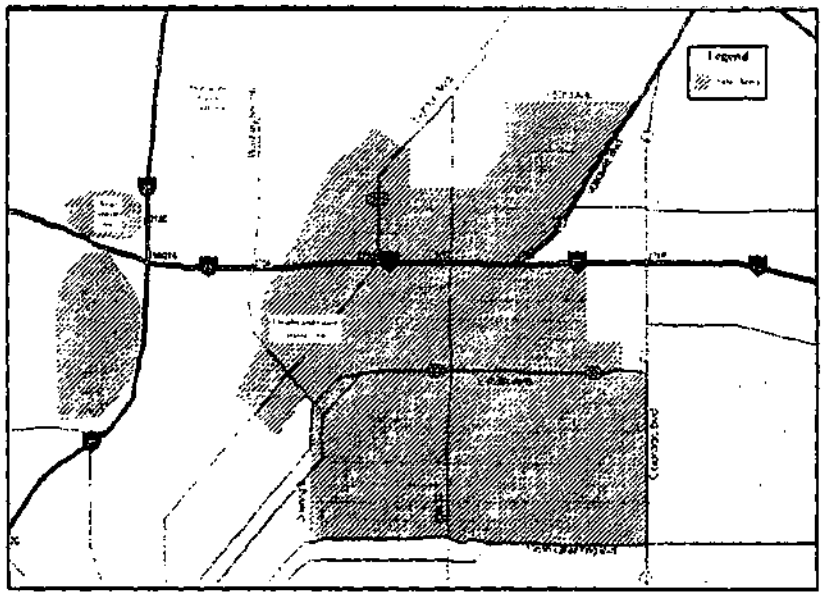
Introduction

The United States Environmental Protection Agency (EPA) is proud to announce the final cleanup decision for the residential soils portion of the Vasquez Boulevard/Interstate 70 (VB/I-70) Superfund Site in northeast Denver. EPA has been working for more than four years with community representatives and local, state, and federal governmental agencies to investigate elevated levels of lead and arsenic in the soils of yards in the area.

On September 25, 2003, EPA and the Colorado Department of Public Health and Environment (CDPHE) signed a Record of Decision (ROD). The Record of Decision is the formal document that describes the cleanup plan. This fact sheet discusses the details of the Record of Decision and answers many frequently asked questions about the cleanup.



VB/I-70 Superfund Site

The Community

VB/I-70 includes the Denver neighborhoods of Cole, Clayton, Swansea, Elyria, southwest Globeville, and a northern section of Curtis Park. According to the 2000 Census, the total population living within these neighborhoods is 17,545, including approximately 2,400 children six years old or younger. EPA considers the VB/I-70 Superfund Site an Environmental Justice Site. This is because the neighborhood residents are predominately low-income and minority. It is also because the area has more sources of environmental pollution than are found together in most other parts of the city. These pollution sources include industry, other Superfund sites, and major transportation corridors.

Due to the Environmental Justice nature of the community, EPA has worked hard to be as inclusive and fair as possible during this environmental investigation and will continue this approach during the cleanup. The affected neighborhoods are represented by many committed community representatives. Their continued participation and input has been very valuable to EPA throughout this entire process, and has led to a cleanup decision supported by the community as well as EPA and the other agencies involved.

The Investigation

CDPHE led a cleanup during the 1990s in Globeville, next to the VB/I-70 neighborhoods, that indicated some yards in the VB/I-70 neighborhoods could have high levels of heavy metals. In 1998, EPA began investigating the nature and extent of metals contamination in VB/I-70 yards. Over the next few years, in collaboration with CDPHE, other governmental agencies, and community representatives, EPA extensively sampled area yards and produced numerous studies. The results showed that lead and arsenic are the two primary metals of concern in VB/I-70 soils. We learned that some yards have high enough levels of either lead or arsenic that EPA will remove and replace those soils to protect the health of the residents living there.

EPA already replaced soils at nearly 50 homes, and is currently replacing soils at more than 140 homes this fall. These yards had some of the highest levels of lead and/or arsenic measured, and posed a health risk to residents there.

The Final Decision

The VB/I-70 Record of Decision (ROD) is a document that describes EPA's final cleanup decision for those remaining yards with elevated levels of lead and/or arsenic in the VB/I-70 neighborhoods. The cleanup will consist of three parts: soil removal and replacement, a community health program, and on-going soil sampling.

Soil Removal: EPA will remove and replace soil at yards where the average lead concentration is above **400 parts per million (ppm).** EPA will also remove and replace soil at yards where the highest arsenic concentration is above **70 ppm**. These soil removals are voluntary and will be completed at no cost to the homeowner. EPA estimates that approximately 850 yards will require a soil removal and replacement. The work is expected to take three to five years to complete.

Community Health Program: Some children in the VB/I-70 Superfund Site have levels of lead in their blood high enough to be a health concern. However, children may be exposed to many different sources of lead such as lead paint in their homes.. In addition, some children exhibit a behavior called Soil Pica. These children intentionally eat unusually large amounts of soil, and are thus exposed to arsenic and lead at very low levels in the soil, as well as bacteria and possibly other harmful substances.

Since residents and children in VB/I-70 are in an Environmental Justice area, and are exposed to a variety of environmental impacts, EPA designed the Community Health Program to complement the soil removals. The Community Health Program is an outreach program that will provide residents with health information about lead exposure in general, Soil Pica behavior, and any number of other environmental health topics.

The Community Health Program will also provide testing for any child in the VB/I-70 area for exposure to lead and arsenic. If any child tests high for lead or arsenic, the Community Health Program will provide for environmental and health care professionals to respond to and help that child.

The Community Health Program will be tailored individually to each neighborhood's

particular needs. The Program will continue through the duration of the soil cleanup work.

Soil Sampling: Since beginning the VB/I-70 investigation, EPA sampled yard soils at more than 3,000 of the 4,000 affected homes in the area. However, nearly 1,000 yards in the VB/I-70 area still have not been sampled. Soil sampling is done at any property within the VB/I-70 boundaries for free, though EPA must be granted access to sample by the property owner. For the duration of the cleanup, EPA will continue to attempt to gain access at those properties that have not been sampled.

Overall, the final cleanup plan for VB/I-70 will cost approximately $31 million. The plan is based on Alternative 6 from EPA's Proposed Cleanup Plan issued in May 2003. EPA received public comment on that Proposed Plan for 30 days. Based on those comments and support for Alternative 6 from community representatives, CDPHE and other agencies, EPA selected Alternative 6 as the final cleanup plan. The selected remedy meets all federal and state requirements and mandates and is protective of human health and the environment.

Frequently Asked Questions

Based on formal public comments, informal group discussions, and individual conversations, EPA is aware of certain common concerns and questions about the final cleanup plan and about the environmental investigation in general. Some of these questions are listed below.

Q. Why are some yards being cleaned up, but others are not?
A. Not all yards need to be cleaned up. Only about 850 of the 4,000 homes in the area have levels of lead and/or arsenic high enough to require a cleanup.

Q. How can my neighbor need his soil removed but I don't, and we live next door to each other?
A. We discovered that it is very common for one yard to have high levels of lead and/or arsenic and the yard next door to have very low levels. We believe this is at least partly because the source of the contamination and the history of the property.

Q. How do I qualify to have my yard cleaned up?
A. EPA will sample your soil for free. If you have levels of lead above 400 ppm or arsenic above 70 ppm, then you qualify for a cleanup.

Q. How long will I have to wait to have my soil cleaned up?
A. The entire cleanup project could take from three to five years. Right now, we cannot tell you if your yard will be in next year's cleanup or in one of the following years

Q. Has my yard been sampled?
A. To find out, simply call one of the EPA representatives listed on the first page of this fact sheet.

Q. Can EPA remove lead paint from the outside and inside of our home, as well as from our soil?
A. Through the Community Health Program, EPA will coordinate with other federal, state, or local agencies that can provide funding for and/or conduct lead paint removal. Superfund dollars may be used to remove exterior lead paint at homes where the soil is replaced, but only after determining that other funding sources are not available. Superfund dollars cannot be used to remove lead paint on the interior of homes.

Q. When will we receive more details on the Community Health Program?
A. The Community Health program will be developed in a collaborative process beginning this winter. The community will receive information as soon as it is available.

Next Steps

Throughout this fall, EPA will continue to welcome access to any yards that have not yet been sampled within the VB/I-70 area. EPA will also finish removing and replacing soils at more than 140 yards that have the highest levels of lead and arsenic.

This winter, EPA, Denver Department of Environmental Health, CDPHE, community representatives, and other organizations and agencies will begin to develop the details of the Community Health Plan. Look for information about that Plan in your mailbox in upcoming months.

Next spring, EPA will begin removing and replacing those yards with lead levels above 400 ppm and/or arsenic above 70 ppm. If your yard needs a cleanup, EPA will contact you by phone and by mail in advance.

RECORD OF DECISION

Vasquez Boulevard/Interstate 70 Superfund Site

Operable Unit 1 Residential Soils

Environmental Protection Agency
Region 8

September 25, 2003

RECORD OF DECISION
FOR
VASQUEZ BOULEVARD/I 70 SUPERFUND SITE
OPERABLE UNIT 1, RESIDENTIAL SOILS

CITY AND COUNTY OF DENVER, COLORADO

DECLARATION

Site Name and Location

The Vasquez Boulevard and I-70 (VB/I-70) Superfund Site (Site) is comprised of approximately 4.5 square miles, located in the north-central section of the City and County of Denver, Colorado. This document represents the Record of Decision (ROD) for the Operable Unit No. 1 (Residential Soils) remedial action. Operable Unit No. 1 (OU1) encompasses four neighborhoods in north-central Denver that are largely residential: Swansea, Elyria, Clayton, and Cole. OU1 also includes the southwest portion of the Globeville neighborhood and the northern portion of the Curtis Park Neighborhood.

Statement of Basis and Purpose

This decision document presents the Selected Remedy for OU1 of the VB/I-70 Site. The remedy selected in this ROD was chosen in accordance with the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, as amended by the Superfund Amendments and Reauthorization Act of 1986, and the National Oil and Hazardous Substance Pollution Contingency Plan (NCP). The decision is based on the Administrative Record file for OU1 of the Site. The U. S. Environmental Protection Agency's (U.S. EPA) CERCLIS identification number for the Site is CO0002259588.

This document is issued by the U.S. EPA Region 8 (EPA), the lead agency, and the Colorado Department of Public Health and Environment (CDPHE). Both U.S. EPA and CDPHE concur on the Selected Remedy presented herein. The remedial action selected in this Record of Decision is necessary to protect public health or welfare and the environment from actual or threatened releases of hazardous substances at the Site.

Assessment of Site

The VB/I-70 Site was placed on the National Priorities List (NPL) in 1999 due to arsenic and lead contamination of soil. For the purposes of investigations and remedy development, the Site was divided into three OUs. This Record of Decision is for OU1, Off-Facility (Residential) Soils of the VB/I-70 Site. There are approximately 4,000 residential properties, 10 schools, and 7 parks within OU1. Most residences are single-family dwellings. There are some multi-family homes and apartment buildings. EPA determined that the VB/I-70 Site is an Environmental Justice (EJ) Site because the residents are predominantly low income and minority. It is also disproportionately affected by environmental impacts from many sources including industry, other Superfund sites, and major transportation corridors.

Operable Units 2 and 3 address On-Facility soil and groundwater at the Omaha & Grant Smelter and Argo Smelter sites, respectively. The structures associated with both of these smelters have been demolished and the sites have been redeveloped with commercial businesses.

Because residential properties within the VB/I-70 Site contained concentrations of arsenic or lead at levels that could present unacceptable health risks to residents with short-term exposures, in September 1998, EPA issued an Action Memorandum that established the basis for conducting a time critical removal action. The Action Memorandum required that soil be removed and replaced at any property where the average arsenic soil levels were greater than 450 ppm and/or lead soil levels were greater than 2000 ppm. These removal "action levels" were chosen to protect young children from adverse health effects related to short term (sub-chronic) exposure. To be conservative in meeting the action levels, a 5-point composite sample was collected from the front yard and a second 5-point composite sample was collected from the back yard of each property. Any property with one or more composite samples exceeding the action levels for either arsenic or lead was identified for soil removal.

EPA proposed the VB/I-70 Site for inclusion on the NPL in January 1999. EPA added the VB/I-70 Site to the NPL on July 22, 1999 (64 Fed. Reg. 39881, July 22, 1999).

The overall Remedial Action Objective (RAO) for OU1 of the Site is to protect human health. The following OU1 specific RAOs were developed for arsenic and lead in soil:

RAOs for Arsenic in Soil

1. For all residents of the VB/I-70 Site, prevent exposure to soil containing arsenic in levels predicted to result in an excess lifetime cancer risk associated with ingestion of soil which exceeds 1×10^{-4}, using reasonable maximum exposure assumptions.

2. For all residents of the VB/I-70 Site, prevent exposure to soil containing arsenic in levels predicted to result in a chronic or sub-chronic hazard quotient associated with ingestion of soil which exceeds 1, using reasonable maximum exposure assumptions.

3. For children with soil pica behavior who reside in the VB/I-70 Site, reduce the potential for exposures to arsenic in soil that result in acute effects.

RAO for Lead in Soil

4. Limit exposure to lead in soil such that no more than 5 percent of young children (72 months or younger) who live within the VB/I-70 Site are at risk for blood lead levels higher than 10 micrograms per deciliter (ug/dL) from such exposure. This provides 95% confidence that children exposed to lead in soil will be protected.

Description of Selected Remedy

Six alternatives were developed and evaluated to address the arsenic and lead contamination found at OU1 of the Site. Based on the Comparative Analysis of Alternatives, the remedy selected for OU1 of the VB/I-70 Site is Alternative 6. The selected remedy consists of 3 components: a community health program; soil removal; and sampling.

The Community Health Program consists of community and individual health education, a biomonitoring program to measure urinary arsenic levels and blood lead levels of children, and a response program that includes necessary follow-up environmental sampling, home investigation, and response. The program is composed of two separate, but overlapping, elements. The first element will address risks to area children from non-soil sources of lead. The second element will be designed to address children with soil pica behavior, to reduce their risks to arsenic in soil above 47 ppm, which is the preliminary action level determined in the Baseline Human Health Risk Assessment for children with soil pica behavior. Participation in one or both elements of the program will be strictly voluntary, and there will be no charge to eligible residents and property owners for any of the services offered by the Community Health Program. The Community Health Program will be implemented on an ongoing basis until the residential soil removal portion of this remedial action has been completed.

Soil removals will occur at properties that have lead or arsenic soil concentrations greater that 70 ppm arsenic or 400 ppm lead. The action level for lead is exceeded when the average lead concentration from three composite soil samples taken from the property is greater than 400 ppm. The action level for arsenic is exceeded when the highest arsenic concentration from three composite soil samples taken from the property is greater than 70 ppm. For properties where soil removal is conducted, all accessible soils will be removed to a depth of 12 inches. The excavation areas will be backfilled with clean soil, and pre-remediation yard features restored to the extent practicable, in consultation with the property owner. All excavated soils will be transported to an acceptable receiving facility, which may include the ASARCO Globe Plant. If the VB/I-70 soils are transported to the ASARCO Globe Plant, it will be used as capping and fill material in implementing the remedy at the Globe Plant Operable Unit. If the excavated soils cannot be placed on the ASARCO Globe Plant, then they will be transported to a local solid waste landfill where the soils may be used as daily cover material.

A program of on-going soil sampling will be implemented for lead and arsenic at all residential properties within the Site that have not already been adequately tested. This sampling program will continue through the completion of the soil removal portion of this remedy.

Statutory Determinations

The Selected Remedy meets the mandates of CERCLA § 121 and the National Contingency Plan. The remedy is protective of human health and the environment. It complies with all Federal and State requirements that are applicable or relevant and appropriate to the remedial action, is cost effective, and utilizes permanent solutions and alternative treatment technologies to the maximum extent practicable.

The remedy for OU1 of the VB/I-70 Site does not satisfy the statutory preference for treatment as a principal element of the remedy because the large volumes of soils contaminated with low levels of lead and arsenic can not be treated cost effectively, and treatment was not acceptable to the community.

If VB/I-70 soils are disposed of at the ASARCO Globe Plant, a 5-Year Review will be required. If the soils are disposed of off-Site, this remedy will not result in hazardous substances, pollutants, or contaminants remaining on-Site above levels that allow for unlimited use and unrestricted exposures, and a 5-Year Review will not be required.

1.11 Principal Threat Waste

The NCP states that, in general, "EPA expects to use treatment to address the principal threats posed by a site, whenever practicable." Principal threats for which treatment is most likely to be appropriate include liquids, areas contaminated with high concentrations of toxic compounds, and highly mobile materials" (40 CFR 300.430(a)(1)(iii)(A)). Contaminated soils at OU1 of the VB/I-70 Site are not considered contaminated with high concentrations of arsenic and lead, and these metals are relatively immobile in the environment. Therefore treatment of the OU1 soils is not expected by the NCP.

1.12 Selected Remedy

Based on the Comparative Analysis of Alternatives, the remedy selected for OU-1 of the VB/I-70 Site is Alternative 6. State and Community Acceptance were the overriding factors in selecting Alternative 6 as the remedy. The selected remedy consists of 3 components, a Community Health Program, soil removal, and sampling. A detailed description of each component of the remedy follows.

1.12.1 Community Health Program

The Community Health Program is composed of two separate, yet partially overlapping, elements. The first element will address risks to area children from non-soil sources of lead and from lead in soils above the action level of 400 ppm. The second element would be designed to address children with soil pica behavior to reduce their risks to arsenic in soil above 47 ppm, the preliminary action level determined in the Baseline Risk Assessment for children with soil pica behavior. Participation in one or both elements of the program would be strictly voluntary, and there would be no charge to eligible residents and property owners for any of the services offered by the Community Health Program. The Community Health Program will be implemented on an ongoing basis until the residential soil removal portion of this remedial action has been completed. Each of these two main elements of the program is described below.

Community Health Program - Lead Exposure Risk Reduction

The program for reduction of lead risks is intended to be general. That is, it is intended to assess risks from lead from any and all potential sources of exposure, with response actions tailored to address the different types of exposure source that may be identified. The lead program will consist of three main elements:

1. Community and individual education about potential pathways of exposure to lead, and the potential health consequences of excessive lead exposure.

2. A biomonitoring program by which any child (up to 72 months old) may be tested to evaluate actual exposure, and

3. A program that provides a response to any observed lead exposure that is outside the normal range. This response will include any necessary follow-up sampling, analysis, and investigation at a child's home to help identify the likely source of exposure. If the source of lead is found to be from residential soils, the property will receive a high priority for soil removal. If the main source is judged to be non-

soil related, responses may include education, counseling, and/or referral to environmental response programs offered by other agencies.

Community Health Program - Arsenic Exposure Reduction, Soil Pica Behavior

The Community Health Program for arsenic is designed to focus specifically on the potential risks to young children that exhibit soil pica behavior. Pica behavior is a rare behavior which children intentionally eat unusually large amounts of soil. The program for arsenic will consist of three main elements:

1. Community and individual education about identification and potential hazards of soil pica behavior and the potential health consequences of excessive acute oral exposure to arsenic.

2. A biomonitoring program by which any child may be tested to evaluate actual soil pica exposure to arsenic.

3. A program that provides a response to any observed inorganic arsenic exposures that are outside the normal range. This response will include any necessary follow-up sampling, analysis, and investigation at a child's home to help identify the likely source of exposure, and to implement an appropriate response that will help reduce the exposure. If the source of arsenic is found to be from residential soils, the property will receive a high priority for soil removal. If the main source is judged to be non-soil related, responses may include education, counseling, and/or referral to environmental response programs offered by other agencies.

1.12.2 Soil Removal

Soil removals will occur at properties that have lead or arsenic soil concentrations greater that the action levels. The action level for lead is exceeded when the average lead concentration from the three composite soil samples taken from the property is greater than 400 ppm. The action level for arsenic is exceeded when the highest arsenic concentration from the three composite soil samples taken from the property is greater than 70 ppm.

For properties which soil removal is conducted, all accessible soils will be removed to a depth of 12 inches. The excavation depth may be reduced in order to prevent damage to large trees or structures.

At the homeowner's request, flower beds and vegetable gardens may be sampled individually. If the concentrations of lead and arsenic in the flower beds or vegetable gardens are found to be below the action levels, then soil removal is not required in these areas. This is the only situation where a partial soil removal could occur at a property.

The excavation areas will be backfilled with clean soil containing arsenic and lead concentrations at or below action levels, and pre-remediation yard features restored. If sprinkler systems are present, the system will be removed and reinstalled. Based on Remedial Investigation data, it is estimated that soil removal would occur at a total of 853 residential properties within VB/I-70 OU1 (508 properties for arsenic only, 108 properties for both lead and arsenic, and 237 for lead only).

All excavated soils will be transported to a local solid waste landfill where they may be used as daily cover material. Alternatively, soils could be placed at the ASARCO Globe Plant Site to be used as cover and

APPENDIX C

EDUCATIONAL MATERIALS REVIEWED BY CHP WORKING GROUP

TITLE **TAB**

EDUCATIONAL MATERIALS REVIEWED BY CHP WORKING GROUP..... C

General Information Brochures, Flyers, Packets, Etc.

You Can! Prevent Lead Poisoning!

El Programa de la Prevención de Envenenamiento por Plomo de Colorado

Cómo Proteger Su Salud/How To Protect Your Health

Fact Sheet: Some Facts About Soil Sampling In The Neighborhood

La Intoxicación Con Plomo En Los Niños

What Every Parent Should Know About Lead Levels In Children

Too bad the early warning signs of lead poisoning aren't this obvious/Lástima que las primeras señales del envenenamiento por plomo no sean tan claras

(EPA) Lead Poisoning And Your Children

Is your home haunted by lead paint?

Protect your child from lead poisoning

Protect Your Family From Lead In Your Home/ Proteja a Su Familia en Contra del Plomo en su Casa

What everyone should Know About Lead Poisoning

Home Remodeling Information

Renovating your home safely

Reducción de los riesgos de contaminación por plomo cuando remodela su casa

Lead in your home: a parent's reference guide

Specific Information About Lead And Arsenic

Datos sobre el plomo y arsénico en el suelo residencial (E/S) plus more in English

Eating Vegetables from Your Garden (E/S)

Lead in Home Remedies

Otros Orígenes de Plomo

Possible Sources of Lead

Blood Lead Testing

Child Lead Poisoning Is Preventable /El envenenamiento infantil con plomo se puede prevenir

¿Qué significan los valores de plomo en la sangre de su niño?/What does you child's blood lead level mean?

Nutrition

Alimentos que Combaten El Envenenamiento con Plomo

Lead Poisoning Nutrition and Children: what you should know/El envenenamiento con plomo la nutrición y los niños: lo que usted debe saber

Lead and a Healthy Diet

Combata el Envenenamiento con Plomo con una dieta saludable

Iron/Calcium/Vitamin C

Let's Learn About Lead Poisoning

For Landlords

The Lead-Based Paint Pre-Renovation Education Rule

Lead Paint Can Poison: Are Your Tenants at Risk?

Home Investigation

Testing Your Home for Lead in Paint, Dust, and Soil

Temporary Measures to Reduce Lead Hazards

Lead Hazards & the Removal of Lead-based Pain

Proteja a Sus Hijos del Plomo: Como Limpiar Las Ventanas Correctamente/Keep Your Children Safe From Lead! How to Clean Your Windows the Right Way

APPENDIX C

EDUCATIONAL MATERIALS REVIEWED BY CHP WORKING GROUP

- General Information Brochures, Flyers, Packets, Etc.
  - You Can! Prevent Lead Poisoning!
  - El Programa de la Prevención de Envenenamiento por Plomo de Colorado
  - Cómo Proteger Su Salud/How To Protect Your Health
  - Fact Sheet: Some Facts About Soil Sampling In The Neighborhood
  - La Intoxicación Con Plomo En Los Niños
  - What Every Parent Should Know About Lead Levels In Children
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  - (EPA) Lead Poisoning And Your Children
  - Is your home haunted by lead paint?
  - Protect your child from lead poisoning
  - Protect Your Family From Lead In Your Home/ Proteja a Su Familia en Contra del Plomo en su Casa
  - What everyone should Know About Lead Poisoning
- Home Remodeling Information
  - Renovating your home safely
  - Reducción de los riesgos de contaminación por plomo cuando remodela su casa
  - Lead in your home: a parent's reference guide
- Specific Information About Lead And Arsenic
  - Datos sobre el plomo y arsénico en el suelo residencial (E/S) plus more in English
  - Eating Vegetables from Your Garden (E/S)
  - Lead in Home Remedies
  - Otros Orígenes de Plomo
  - Possible Sources of Lead
- Blood Lead Testing
  - Child Lead Poisoning Is Preventable /El envenenamiento infantil con plomo se puede prevenir
  - ¿Qué significan los valores de plomo en la sangre de su niño?/What does you child's blood lead level mean?
- Nutrition
  - Alimentos que Combaten El Envenenamiento con Plomo
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  - Lead and a Healthy Diet

EDUCATIONAL MATERIALS REVIEWED BY CHP WORKING GROUP (CON'T)

- Combata el Envenenamiento con Plomo con una dieta saludable

Iron/Calcium/Vitamin C

- Let's Learn About Lead Poisoning

For Landlords

- The Lead-Based Paint Pre-Renovation Education Rule
- Lead Paint Can Poison: Are Your Tenants at Risk?

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Temporary Measures to Reduce Lead Hazards

- Lead Hazards & the Removal of Lead-based Pain
- Proteja a Sus Hijos del Plomo: Como Limpiar Las Ventanas Correctamente/Keep Your Children Safe From Lead! How to Clean Your Windows the Right Way

¿Cómo puedo prevnir la intoxicacón con plomo en mi hijo(a)?

Puede ayudar con la prevención de la intoxicación con plomo si mantiene seguros su hogar y el área donde juega su hijo(a). Siga las siguientes reglas sencillas:

Adentro

- ❑ No deje que sus hijos(as) se metan en la boca ninjuna cosa pintada.
- ❑ Esté consciente de pintura pelándose de las paredes y no permita que su hijo(a) se acerque a casas viejas en remodelación.
- ❑ Use pintura sin plomo en paredes, muebles y en cualquier lugar dentro de su casa
- ❑ Si trabaja con plomo o donde plomo está presente, báñese y múdese de ropa antes de llegar a casa. Lave su ropa aparte de la ropa de su familia.
- ❑ Lave biberones, chupones y juguetes que han caído al piso antes de dárselos a su hijo(a)

La Comida

- ❑ Su hijo(a) debe lavarse la manos antes de que como. Lávese usted las manos antes de preparar comida.
- ❑ Si sospecha que tiene tubería de plomo, pida una prueba de su agua. Para beber y cocinar use sólo el agua de la llave de agua fría y deje que el agua corra varios minutos antes de usarla.
- ❑ Guarde comida en recipientes de plástico o de vidrio, no en latas abiertas o en ollas de cerámica,
- ❑ Provea una dieta nutritiva con bastante vitamina C, calcio y hierro.
- ❑ No le de a su hijo(a) remedios folklórucis, que pueden contener plomo.
- ❑ No prepara ni sirva comida en vasija o tazas de cerámica de Latinoamérica.

Afuera

- ❑ No permita que sus hijos(a) coman tierra, nieve o canelones
- ❑ Plante zacate o arbustos si su patio es de tierra
- ❑ No deje que sus niños(as) jueguen cerca a vías o carreteras congestionadas.
- ❑ No use gasolina con plomo en carros que pueden o deben usar gasolina sin plomo

Su médico puede ayudarle a prevenir la intoxicación de plomo exámenes regulares de la sangre de hijo(a).

COLORADO HEALTH AND MEDICAL SERVICES

COLORADO STATE DEPARTMENT OF SOCIAL SERVICES

(303) 866-3513 or Outside of Denver Metro Area 1-800-221-3943

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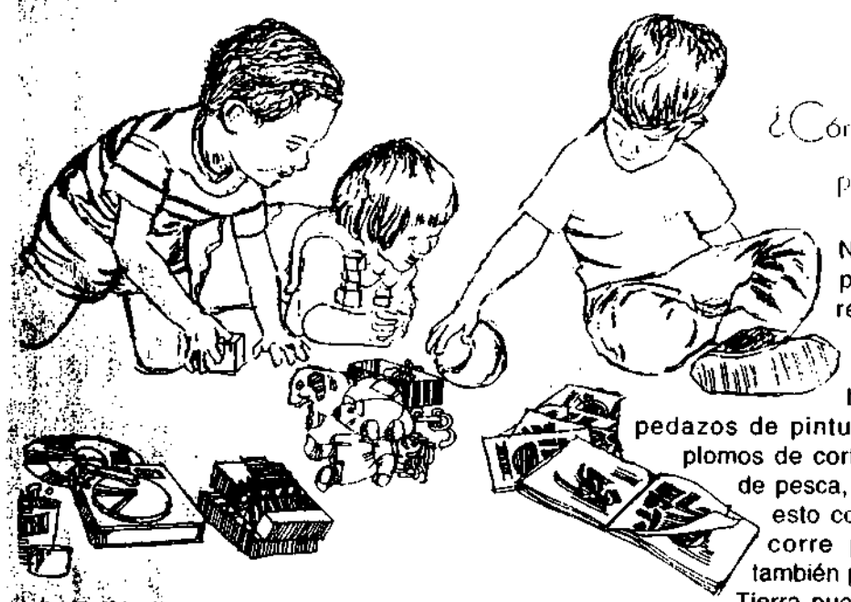
COLORADO EPSDT PROGRAM

LA INTOXICACIÓN CON PLOMO EN LOS NIÑOS

LO QUE LOS PADRES DEBEN SABER

394-40-90-13 16 (1/94)



¿Cómo se intoxica con plomo un niño?

Niños se intoxican con plomo si ingieren o respiran plomo de áreas donde viven o juegen. Los niños ponen en sus bocas objetos como tierra, pedazos de pintura pelada, pesadas de plomos de cortinas, pesadas de plomo de pesca, o figuras de barro. Todo esto contiene plomo. Agua que corre por tubería de plomo también puede intoxicar a un niño. Tierra puede contener plomo de la contaminación industrial o de la descarga de vehículos que usan gasolina con plomo. La tierra llevada por el viento puede ser respirado o ingerida por los niños.

¿Qué es la intoxicación con plomo?

La intoxicación con plomo es el efecto de ingerir o respirar cantidades tóxicas de plomo. Esto puede dañar los riñones y el sistema nervioso y reproductivo de un niño(a) y puede causar daño permanente en el desarrollo mental de un niño(a).

Todo niño está a riesgo de la intoxicación con plomo

La intocicación con plomo en niños no depende de la prosperidad o la raza de la familia. Como padre, usted debe hacerse las siguientes preguntas. Si su respuesta es SI a cualquier pregunta, comuníquese con el médico de su hijo(a) quién decidirá si se debe hacer un examen para plomo en la sangre. Su hijo(a):

- ❑ ¿Vive en o visita con frecuencia una casa construída antes de 1960 con pintura que se está pelando?
- ❑ ¿Vive en o visita con frecuencia una casa construída antes de 1960 que está o ha estado recientemente bajo remodelación?
- ❑ ¿Tiene un hermano, una hermana, compañero(a) o vive alguien en la misma casa quien recibe atención o tratamiento para la intoxicación de plomo?
- ❑ ¿Vive cerca a una fundición activa de plomo, a una planta donde se reconstruyen baterías, o a otra industria que despide emanaciones de plomo?
- ❑ ¿Ha usado remedios caseros o folklóricos en el año pasado (Azarcon, Greta, Pay-toc-ah, Coral, Bali Goli, Ruena, Alarcon)?
- ❑ ¿Usted prepara o sirve comida en vasija o cazuelas de barro hechas fuera de los Estados Unidos?
- ❑ ¿Vive usted cerca de una carretera o vía congestionada?

So ha contestado **SI** a cualquiera de estas preguntas, **INFORMELE A SU MEDICO.**

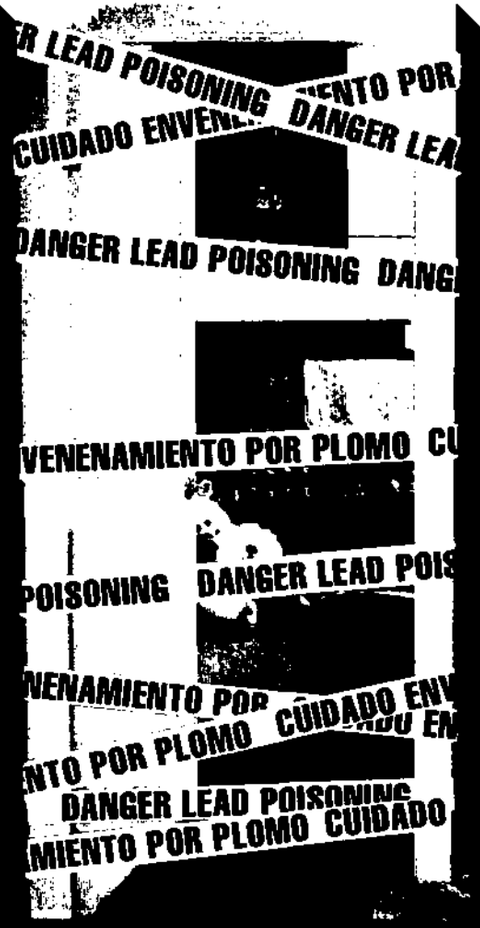
El plomo está en su vecindario y es posible que esté en su casa

Casi todas las casas ubicadas en los vecindarios viejos* de Denver tienen pintura con base de plomo que podría envenenar a sus niños.

*Los vecindarios viejos incluyen (entre otros): Auraria/Lincoln Park, Baker, Berkeley, City Park West, Clayton, Cole, Elyria Swansia, Five Points, Globeville, Highland, Jefferson Park, North Capitol Hill, Skyland, Sun Valley, Sunnyside, Valverde, West Highland, y Whittier. Los códigos postales de estos vecindarios son los siguientes: 80204, 80205, 80211, 80212, 80216, y 80223. Todas las casas construidas antes del año 1978 en cualquier vecindario pueden tener pintura con base de plomo.

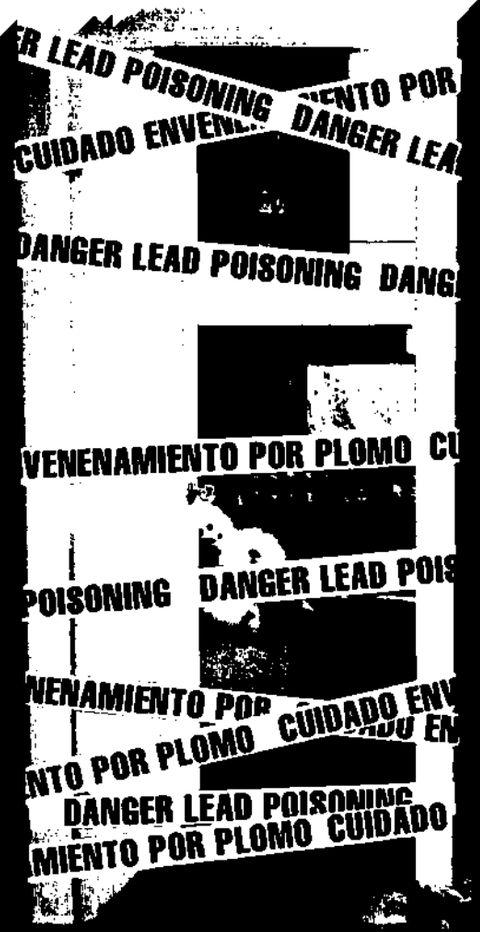
El plomo hace daño a los niños

El plomo es un veneno que puede causar daño al cerebro de los niños menores de seis años. Los niños que se han envenenado por plomo pueden tener problemas de comportamiento y aprendizaje.



Lástima que las primeras señales del envenenamiento por plomo no sean tan claras.

Un Denver a Salvo de Plomo



Too bad the early warning signs of lead poisoning aren't this obvious.

Lead-Safe Denver

Lead is in your neighborhood and may be in your home

Almost all of the homes in Denver's older neighborhoods* contain lead-based paint that could poison your children.

*Denver's older neighborhoods include (but are not limited to): Auraria/Lincoln Park, Baker, Berkeley, City Park West, Clayton, Cole, Elyria Swansia, Five Points, Globeville, Highland, Jefferson Park, North Capitol Hill, Skyland, Sun Valley, Sunnyside, Valverde, West Highland, and Whittier. The zip codes for these neighborhoods are: 80204, 80205, 80211, 80212, 80216, and 80223. Any house built before 1978 in any neighborhood may contain lead-based paint.

Lead hurts kids

Lead is a poison that causes brain damage in children under six years old. Children with lead poisoning might have behavior problems or have a hard time learning in school.

You can protect your children from lead poisoning

1. Don't let children put dirt or paint chips in their mouths. Don't let them play around chipping paint inside or outside the house.
2. Wash children's hands before they eat or sleep.
3. Wash toys and stuffed animals weekly. Wash bottles and pacifiers as soon as they fall on the floor.
4. Don't let children keep toys on windowsills. Clean windowsills weekly.
5. Keep paint in good shape. If you rent, tell your landlord about chipping or peeling paint.
6. Don't sand or scrape paint in old homes. You could make lead dust that poisons children.
7. Take off your shoes before coming into the house, and keep floors mopped.
8. Make sure children eat nutritious, low-fat meals. Children with a good diet absorb less lead.
9. Get your children under six years old tested for lead poisoning.

Help is available if your child has lead poisoning. Call Northeast Denver Housing Center at 303-377-3334, or visit www.leadsafedenver.org for more information.

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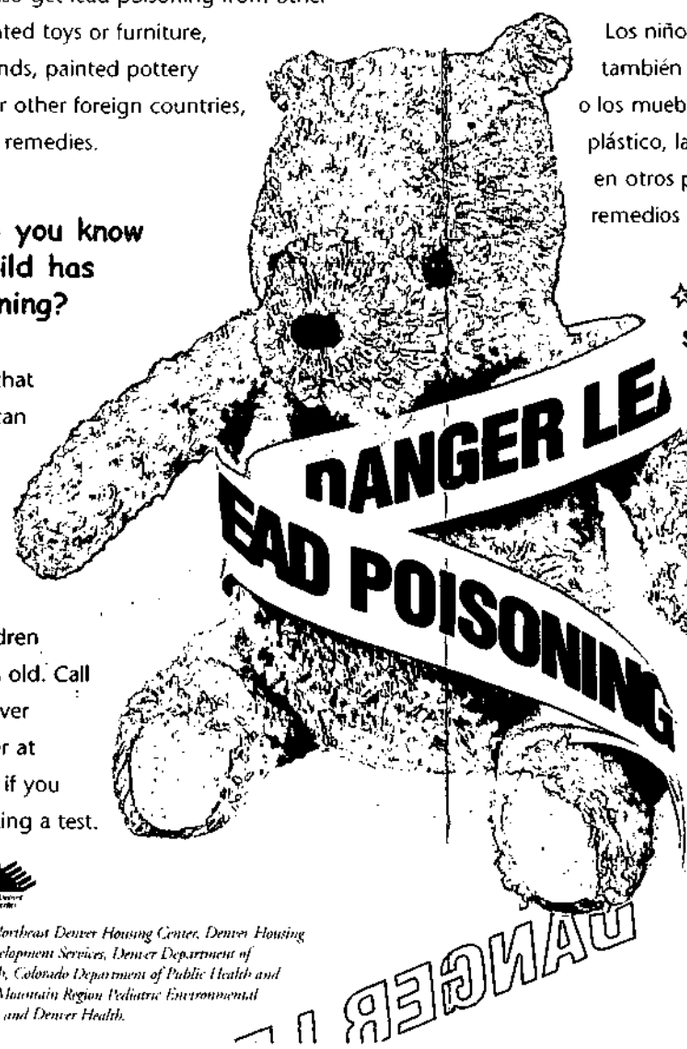
How do children get lead poisoning?

Children can get lead poisoning by swallowing lead-paint chips, dirt, or lead dust. They can get lead in their mouths just by putting their hands or toys in their mouths after touching dirt or dust.

Children can also get lead poisoning from other things like painted toys or furniture, plastic mini-blinds, painted pottery from Mexico or other foreign countries, or some home remedies.

How do you know if your child has lead poisoning?

Even children that seem healthy can have lead poisoning. The only way to know is to get a blood test for all children under six years old. Call Northeast Denver Housing Center at 303-377-3334 if you need help getting a test.



In partnership with Northeast Denver Housing Center, Denver Housing & Neighborhood Development Services, Denver Department of Environmental Health, Colorado Department of Public Health and Environment, Rocky Mountain Region Pediatric Environmental Health Specialty Unit and Denver Health.

¿Cómo se envenenan por plomo los niños?

Los niños se pueden envenenar por plomo comiendo pedazos de pintura, tierra, o polvo de plomo. El plomo puede ser introducido a la boca de los niños solamente por poner las manos o un juguete en la boca después de tocar tierra o polvo.

Los niños se pueden envenenar por plomo también por otras cosas como: los juguetes o los muebles pintados, las persianas de plástico, las cerámicas pintadas en México o en otros países extranjeros, o algunos remedios caseros.

¿Cómo se sabe si su niño se ha envenenado por plomo?

Aún los niños que parecen estar en buena salud pueden ser envenenados por plomo. La única manera de saber es hacerles una prueba de sangre para todos los niños menores de seis años. Si usted necesita ayuda para conseguir una prueba de sangre, llame a Northeast Denver Housing Center al 303-377-3334.

Usted puede proteger a sus niños del envenenamiento por plomo.

1. No deje que los niños se metan tierra ni pedazos de pintura en la boca. No deje que jueguen alrededor de la pintura descascarada.
2. Láveles las manos a los niños antes de que coman o duerman.
3. Lave las mamilas y los chupetes en el momento en que se caigan al suelo.
4. No deje que los niños guarden los juguetes en los marcos de las ventanas.
5. Mantenga la pintura en buena condición. Si usted alquila (renta) la casa, avísele al dueño o el gerente de la pintura descascarada.
6. No lije ni raspe la pintura en casas viejas. Esto podría desprender polvo de plomo que envenene a los niños.
7. Quítese los zapatos antes de entrar a la casa, y mantenga los suelos trapeados.
8. Asegúrese que los niños coman alimentos nutritivos. Aquellos que comen sanamente, es más difícil que se envenenen por plomo.
9. A los niños menores de seis años, llévelos a su médico o una clínica para que les hagan una prueba de sangre.

Se puede conseguir ayuda si su niño se ha envenenado por plomo. Llame a Northeast Housing Center al 303-377-3334, o visite www.denversinplomo.org para más información.

Imprimido en papél reciclado.

the proper equipment to clean up thoroughly. Don't try to remove lead paint yourself.

✓ All occupants, especially children and pregnant women, should leave the building until all work is finished *and a thorough cleanup is done.*

5. Don't bring lead dust into your home.

If you work in construction, demolition or painting, with batteries, or in a radiator repair shop or lead factory, or if your hobby involves lead, you may unknowingly bring lead into your home on your hands or clothes. You may also be tracking in lead from the soil around your home. Soil very close to homes may be contaminated from lead paint on the outside of the building. Soil by roads or highways may be contaminated from years of exhaust fumes from cars and trucks that used leaded gas.

✓ If you work with lead in your job or hobby, change your clothes and shower before you go home.

✓ Encourage your children to play in sand or grassy areas instead of dirt which sticks to fingers and toys. Try to keep your children from eating dirt, and make sure they wash their hands when they come inside.

6. Get lead out of your drinking water.

Most well or city water does not naturally contain lead. Water usually picks up lead *inside your home* from household plumbing that is made with lead materials. Boiling the water will not reduce the amount of lead. Bathing is not a problem because lead does not enter the body through the skin.

✓ *The only way to know if you have lead in your water is to have it tested.* Call your local health department or your water supplier to see how to get it tested.

✓ Household water will contain more lead if it has sat for a long time in the pipes, is hot, or is naturally acidic.

✓ If you think your plumbing might have lead in it:

1) Use only cold water for drinking, cooking, and making baby formula.
2) Run water for 15 to 30 seconds before drinking it, especially if you have not used your water for a few hours.
3) Call EPA's Safe Drinking Water Hotline for more information.

7. Eat right.

A child who gets enough iron and calcium will absorb less lead. Foods rich in iron include eggs, lean red meat, and beans. Dairy products are high in calcium.

✓ Don't *store* food or liquid in lead crystal glassware or imported or old pottery.

✓ If you reuse plastic bags to store or carry food, keep the printing on the outside of the bag.

United States Environmental Protection Agency
EPA 747-K-00-003
October 2000
Office of Pollution Prevention and Toxics (7404)

EPA Lead Poisoning And Your Children

Lead awareness and your children

About 1 in 22 children in America have high levels of lead in their blood, according to the Centers for Disease Control and Prevention. You may have lead around your building without knowing it because you can't see, taste, or smell lead. You may have lead in the dust, paint, or soil in and around your home, or in your drinking water or food. Because it does not break down naturally, lead can remain a problem until it is removed.

Before we knew how harmful it could be, lead was used in paint, gasoline, water pipes, and many other products. Now that we know the dangers of lead, house paint is almost lead-free, leaded gasoline has been phased out, and household plumbing is no longer made with lead materials.

How lead affects your child's health

The long-term effects of lead in a child can be severe. They include learning disabilities, decreased growth, hyperactivity, impaired hearing, and even brain damage. If caught early, these effects can be limited by reducing exposure to lead or by medical treatment. If you are pregnant, avoid exposing yourself to lead. Lead can pass through your body to your baby. The good news is that there are simple things you can do to help protect your family.

1. Get your child tested.

Even children who appear healthy may have high levels of lead. You can't tell if a child has lead poisoning unless you have him or her tested. A blood test takes only ten minutes, and results should be ready within a week.

Blood tests are usually recommended for:

✓ Children at ages 1 and 2.

✓ Children or other family members who have been exposed to high levels of lead.

✓ Children who should be tested under your state or local screening plan.

To find out where to have your child tested, call your doctor or local health clinic. They can explain what the test results mean, and if more testing will be needed.

2. Keep it clean.

Ordinary dust and dirt may contain lead. Children can swallow lead or breathe lead contaminated dust if they play in dust or dirt and then put their fingers or toys in their mouths, or if they eat without washing their hands first.

✓ Keep the areas where your children play as dust-free and clean as possible.

✓ Wash pacifiers and bottles after they fall on the floor. Keep extras handy.

✓ Clean floors, window frames, window sills, and other surfaces weekly. Use a mop, sponge, or paper towel with warm water and a general all-purpose cleaner or a cleaner made specifically for lead. REMEMBER: NEVER MIX AMMONIA AND BLEACH PRODUCTS TOGETHER SINCE THEY CAN FORM A DANGEROUS GAS.

✓ Thoroughly rinse sponges and mop heads after cleaning dirty and dusty areas.

✓ Wash toys and stuffed animals regularly.

✓ Make sure your children wash their hands before meals, nap time, and bedtime.

3. Reduce the risk from lead paint.

Most homes built before 1960 contain leaded paint. Some homes built as recently as 1978 may also contain lead paint. This paint could be on window frames, walls, the outside of your house, or other surfaces. Tiny pieces of peeling or chipping paint are dangerous if eaten. Lead paint in good condition is not usually a problem except in places where painted surfaces rub against each other and create dust. (For example, when you open a window, the painted surfaces rub against each other.)

✓ *Make sure your child does not chew on anything covered with lead paint, such as painted window sills, cribs, or playpens.*

✓ Don't burn painted wood. It may contain lead.

4. Don't remove lead paint yourself

Families have been poisoned by *scraping or sanding lead paint* because these activities generate large amounts of lead dust. Lead dust from repairs or renovations of older buildings can remain in the building long after the work is completed. Heating paint may release lead into the air.

✓ Ask your local or state health department if they will test your home for lead paint. Some will test for free. Home test kits *cannot* detect small amounts of lead under some conditions.

✓ Hire a person with special training for correcting lead paint problems to remove lead paint from your home, someone who knows how to do this work safely and has

Protect Your Children From Lead Poisoning

1 Get your child tested for lead poisoning, even if he or she seems healthy.

2 Clean floors, window frames, window sills, and other surfaces weekly. Use a mop, sponge, or paper towel with warm water and a general all-purpose cleaner or a cleaner made specifically for lead.

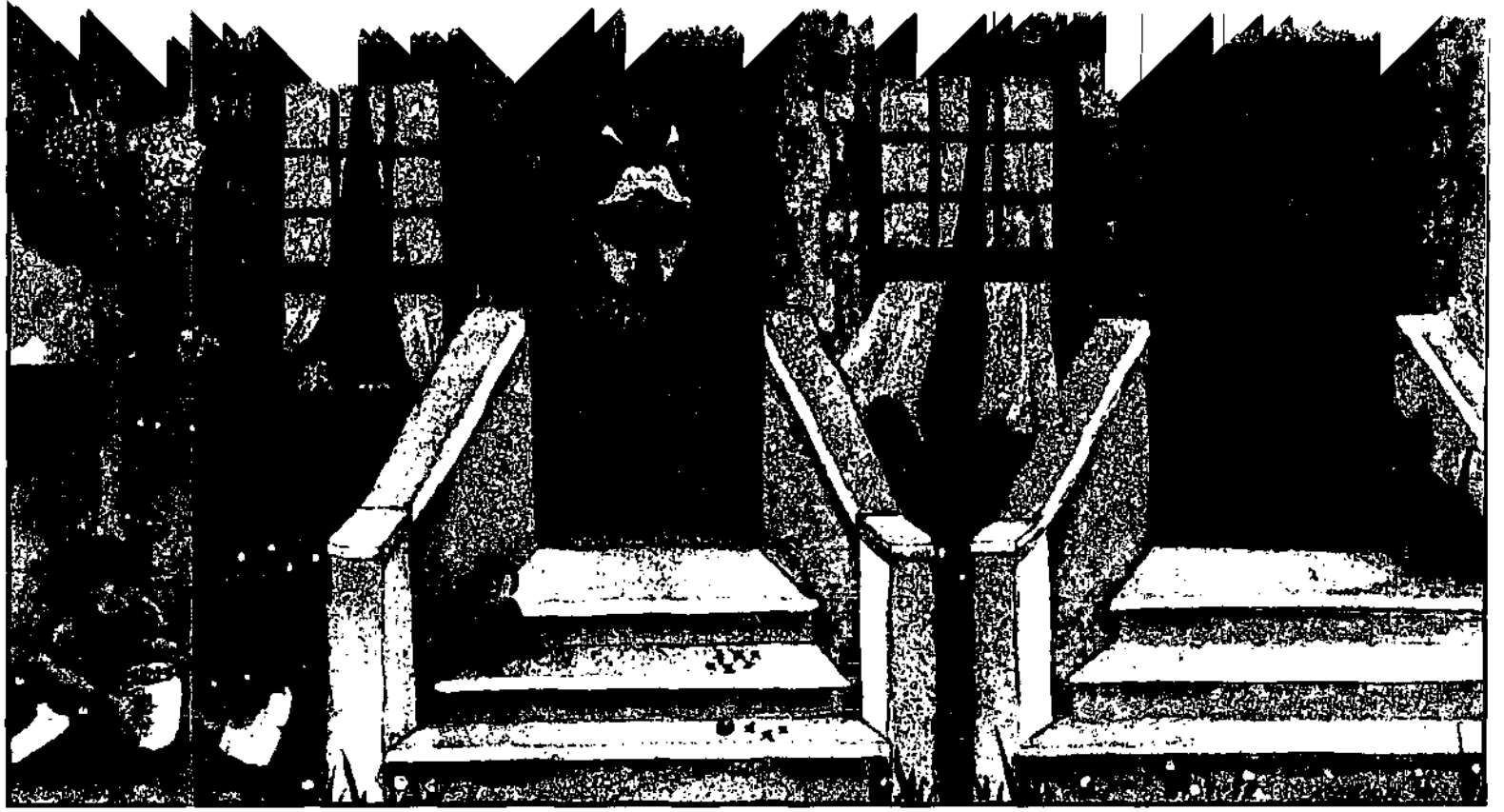
3 Reduce the risk of lead paint. Make sure your child is not chewing on anything covered with lead paint.

4 Don't try to remove lead paint yourself.

5 Don't bring lead dust into your home from work or a hobby.

6 Have your water tested. If the cold water hasn't been used for more than a few hours, let it run for 15–30 seconds before drinking it or cooking with it.

7 Eat right and don't store food in high-lead pottery.



Lead poisoning is a serious problem for young children—the younger the child, the greater the risk.

For More Information

EPA's Safe Drinking Water Hotline
1-800-426-4791

National Lead Information Center
1-800-424-LEAD

Visit our web site
http://www.epa.gov/lead

United States Environmental Protection Agency ● Office of Pollution Prevention and Toxics ● Office of Ground Water and Drinking Water

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- ✓ No quite usted mismo la pintura a base de plomo. Contrate a una persona especialmente capacitada para corregir este tipo de problemas, alguien que sepa hacer este trabajo de una manera segura y que tenga el equipo adecuado para limpiarlo.
- ✓ Todas las personas, especialmente los niños y las mujeres embarazadas, deben salirse del edificio hasta que se haya terminado todo el trabajo y se realice una limpieza a fondo.

5. No traiga polvo de plomo a su hogar.

Si trabaja en construcción, demolición, pintando casas, con baterías, en un taller de reparación de radiadores, en una fábrica de plomo o si sus pasatiempos incluyen contacto con el plomo, usted puede traer, sin darse cuenta, plomo a su hogar en las manos o la ropa. Es posible que también traiga plomo a su casa en el polvo de los zapatos. La tierra que está muy cerca de las casas puede estar contaminada con pintura a base de plomo del exterior del edificio. La tierra al lado de las carreteras o autopistas también puede estar contaminada a causa de haber recibido por años los gases de automóviles y camiones que usaban gasolina con plomo.

- ✓ Si usted trabaja con plomo en su empleo o pasatiempo, cámbiese de ropa y báñese antes de regresar a su casa.
- ✓ Es mejor que sus niños jueguen con arena o en la hierba en lugar de hacerlo en la tierra que se pega en los dedos y juguetes. Asegúrese de que sus niños no coman tierra y de que se laven las manos cuando entren a la casa.

6. Elimine el plomo del agua potable.

La mayoría del agua de los pozos o de la ciudad no contiene plomo. Generalmente el agua de su casa recoge plomo adentro de ésta debido a que las tuberías están hechas de materiales que contienen plomo. Hervir el agua no reduce la cantidad de plomo. Bañarse no es un problema porque el plomo no entra en el cuerpo a través de la piel.

- ✓ *La única manera de enterarse si el agua contiene plomo es haciéndola examinar. Llame al Departamento de Salud o a su proveedor de agua para que la examine.*
- ✓ El agua de su casa tendrá más plomo si ha estado largo tiempo en las tuberías, si está caliente o si es naturalmente ácida.
- ✓ Si cree que la tubería de su casa puede tener plomo:
  1) Use solamente agua fría para beber, cocinar y preparar los biberones del bebé.
  2) Deje correr el agua durante 15 a 30 segundos antes de beberla, especialmente si no la ha usado en varias horas.
  3) Llame a la línea directa de agua potable de EPA para recibir más información.

7. Aliméntese bien.

Un niño que toma suficiente hierro y calcio absorberá menos plomo. Los alimentos ricos en hierro son los huevos, la carne roja sin grasa y los frijoles. Los productos lácteos tienen mucho calcio.

- ✓ No guarde comida o líquidos en cristal que contenga plomo o en loza vieja o importada.
- ✓ Si utiliza bolsas de plástico para guardar o llevar comida, asegúrese de que la parte impresa quede en la parte exterior de la bolsa.

Agencia de los Estados Unidos para la protección del medio ambiente
EPA 747-K-00-002
Octubre 2000
Oficina de prevención de contaminación y de substancias tóxicas (74

El Envenenamiento Por El Plomo y*

Alerta de plomo y sus niños

De acuerdo a los Centros de Control y Prevención de Enfermedades, aproximadamente uno de cada veintidós niños en los Estados Unidos tiene un nivel alto de plomo en la sangre. Puede ser que haya plomo en su edificio sin que usted lo sepa, porque el plomo no se puede ver, oler ni saborear. Es posible que haya plomo en el polvo, la pintura o la tierra que hay dentro y fuera de su casa, en el agua potable o los alimentos. Debido a que no se desintegra naturalmente, si no se elimina, el plomo puede seguir siendo un problema.

Antes de que se descubrieran los efectos dañinos del plomo, éste se utilizaba en la fabricación de pintura, gasolina, tuberías y muchos otros productos. Ahora que conocemos los peligros del plomo, la pintura casera está casi libre de plomo, la gasolina con plomo ha desaparecido y las tuberías caseras no se hacen con plomo.

Cómo afecta el plomo la salud de su niño

A largo plazo, el plomo puede tener efectos muy severos en su niño. Estos incluyen problemas de aprendizaje, reducción de crecimiento físico, hiperactividad, mal funcionamiento del oído, hasta problemas del cerebro. Si se detectan a tiempo, estos efectos se pueden disminuir, reduciendo el contacto con el plomo y siguiendo un tratamiento médico. Si usted está embarazada, no se exponga al plomo, ya que éste puede pasar a través de su cuerpo al de su bebé. La buena noticia es que hay cosas sencillas que puede hacer para ayudar a proteger a su familia.

1. Hágale a su niño un examen de plomo en la sangre.

Hasta los niños que parecen sanos pueden tener niveles altos de plomo en la sangre. Usted no sabrá si su niño está intoxicado con plomo si no le hace un examen de sangre. Estos exámenes toman solamente diez minutos y los resultados están listos generalmente en una semana.

Los exámenes de sangre generalmente se le recomiendan a:

✓ Los niños de uno y dos años de edad.

✓ Los niños u otros miembros de la familia que hayan estado expuestos a niveles altos de plomo.

✓ Los niños que deberán examinarse mediante un plan local o estatal de muestras de plomo en la sangre.

Para averiguar dónde puede examinar a su niño, llame a su médico o a la clínica de salud pública. Ellos podrán explicarle los resultados del examen y decirle si son necesarios más exámenes.

2. Mantenga la limpieza.

El polvo común y la tierra pueden contener plomo. Los niños pueden tragar o inhalar polvo contaminado si juegan con el polvo o con tierra y luego se meten los dedos o juguetes a la boca, también si comen sin lavarse las manos.

✓ Mantenga las áreas de juego lo más limpias y libres de polvo posible.

✓ Lave los chupones y los biberones si se caen al suelo. Tenga otros a la mano.

✓ Limpie semanalmente los pisos, los marcos y alféizares de las ventanas y otras superficies. Use un trapeador, una esponja o una toalla de papel con agua tibia y un limpiador para usos múltiples o uno hecho específicamente para plomo. RECUERDE: NUNCA MEZCLE PRODUCTOS CON AMONIACO Y BLANQUEADOR YA QUE PUEDEN PRODUCIR GASES PELIGROSOS.

✓ Enjuague completamente las esponjas y los trapeadores después de limpiar áreas sucias y con polvo.

✓ Lave los juguetes y animales de felpa regularmente.

✓ Asegúrese de que sus niños se laven las manos antes de comer y dormir.

3. Reduzca el peligro de la pintura a base de plomo.

La pintura de la mayoría de las casas construidas antes de 1960 contiene plomo. Algunas casas construidas tan recientemente como 1978 también pueden estar pintadas con pintura a base de plomo. Esta pintura puede encontrarse en los marcos de las ventanas, las paredes exteriores de su casa o en otras superficies. Las partículas pequeñas de pintura a base de plomo son peligrosas si se comen. La pintura a base de plomo en buenas condiciones generalmente no es un problema, con excepción de los lugares en donde las superficies pintadas se rozan unas con otras creando polvo. (Por ejemplo: cuando se abre una ventana, las superficies pintadas se rozan entre sí.)

✓ *Vigile que su niño no muerda nada que esté cubierto con pintura a base de plomo, como los marcos de las ventanas, las cunas y otros muebles infantiles..*

✓ No queme maderas pintadas, ya que la pintura puede ser a base de plomo.

4. No remueva usted mismo la pintura a base de plomo.

Algunas familias se han intoxicado al lijar o raspar la pintura a base de plomo debido a las grandes cantidades de polvo que esto produce. El polvo de plomo puede quedarse en los edificios viejos aun mucho tiempo después de haber terminado las reparaciones o renovaciones. Si se calienta, la pintura de plomo, puede producir vapores de plomo en el aire.

✓ Averigüe si el departamento de salud pública local o estatal realiza exámenes de pintura a base de plomo en casas. Algunos lo harán gratis. Bajo ciertas condiciones, los exámenes caseros no pueden detectar las cantidades pequeñas de plomo.

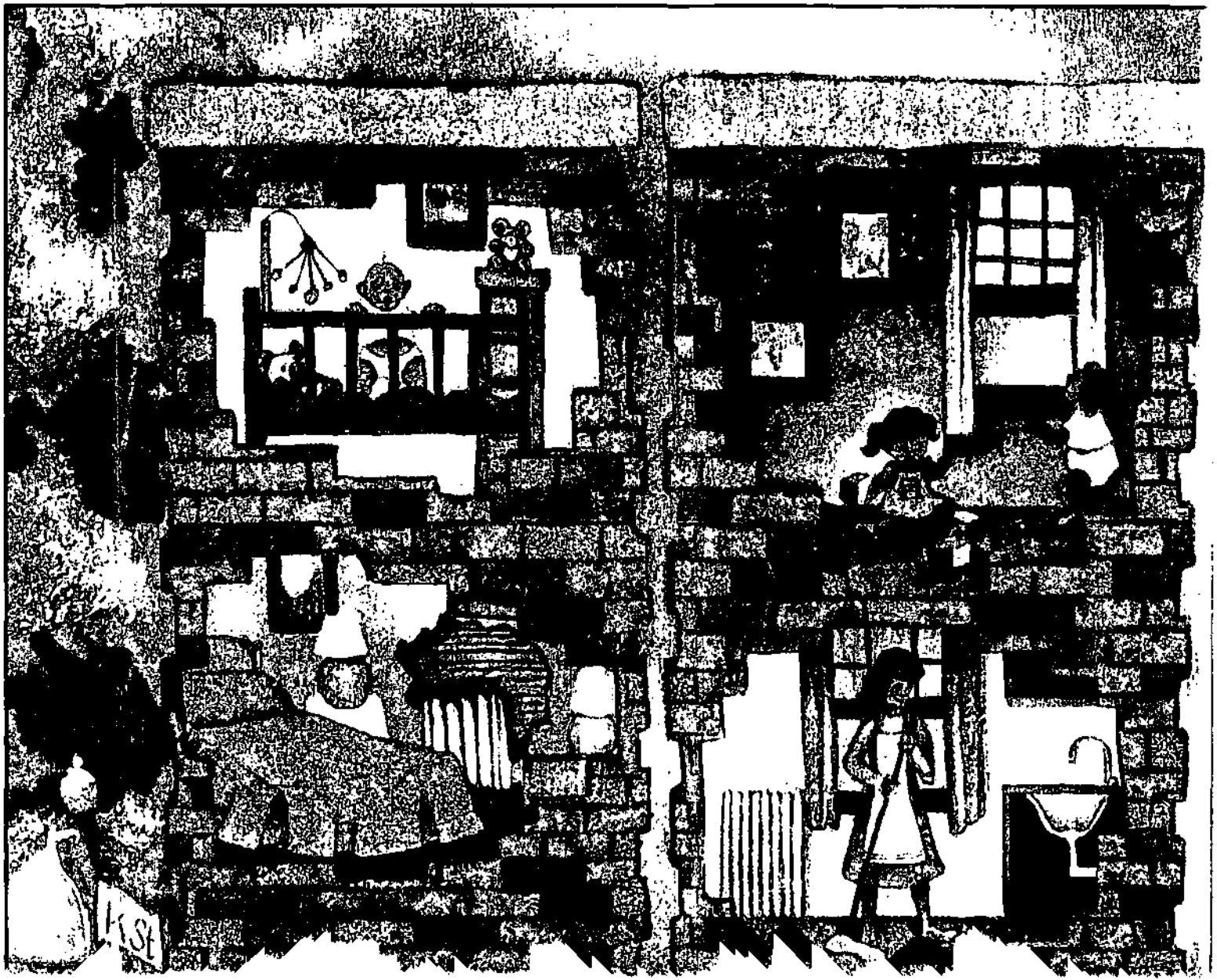
Proteja a sus niños del envenenamiento con plomo

1 Aun cuando el niño esté sano, hágale un examen para asegurarse de que no esté intoxicado con plomo.

2 Limpie semanalmente los pisos, los marcos y los alféizares de las ventanas y otras superficies. Use un trapeador, una esponja o una toalla de papel con agua tibia y un limpiador para usos múltiples o uno hecho específicamente para plomo.

3 Reduzca el peligro de la pintura que contiene plomo. Asegúrese de que su niño no se lleve a la boca nada que esté cubierto con pintura que contenga plomo.

4 No trate de quitar

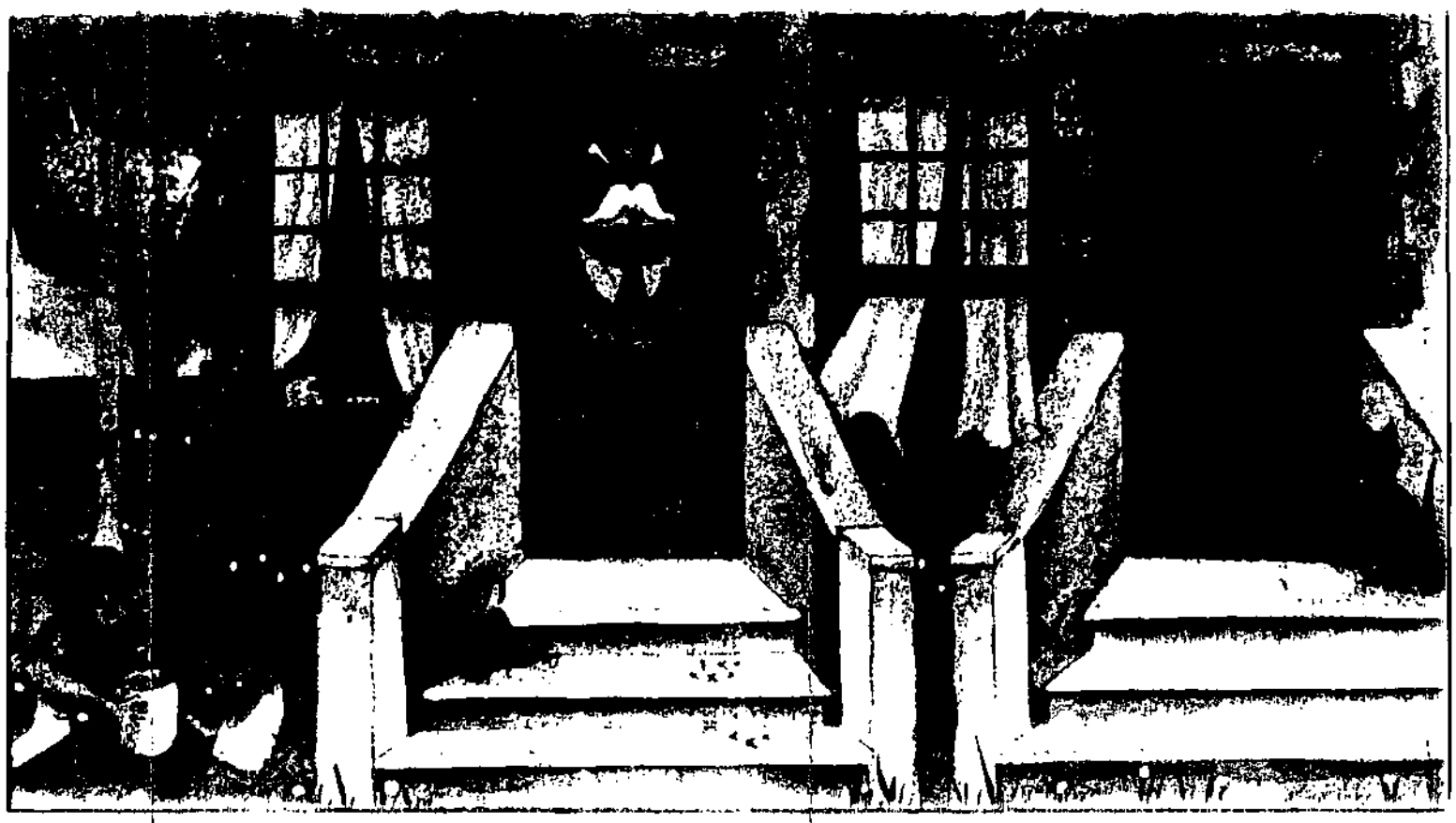


4 usted mismo la pintura a base de plomo.

5 No traiga polvo de plomo a su casa cuando regrese de su empleo o pasatiempo.

6 Haga examinar el agua. Si no se ha usado el agua fría en dos horas o más, déjela correr durante 15 a 30 segundos antes de beberla o usarla para cocinar.

7 Aliméntese bien y no guarde comida en recipientes de loza que contengan plomo.



El envenenamiento con plomo es un problema serio en la infancia - mientras más pequeño es el niño, mayor es el riesgo.

Para obtener más información llame a:

EPA's Safe Drinking Water Hotline
1-800-426-4791
Información sobre laboratorios certificados para examinar el contenido de plomo en al agua e información sobre filtros

National Lead Information Center
1-800-424-5323
Centro Nacional de Información sobre el Plomo

Visite nuestro sitio Web
http://www.epa.gov/lead

Agencia de los Estados Unidos para la protección del medio ambiente ○ Oficina de prevención de contaminación y de substancias tóxicas ○ Oficina de agua subterránea y agua potable

Papel reciclado y reciclable - Impreso con tintas a base de aceite vegetal en papel reciclado (con un mínimo de 30% de materiales previamente usados).

Follow this simple checklist to protect your children from lead paint hazards.

1. **Keep paint in good shape.**
   - Check often for peeling paint.
   - Watch out for water damage that can make paint peel.
   - Make sure any problems are fixed promptly.

2. **Work safely with lead paint.**
   - Wet down the paint before you sand or scrape to control lead dust.
   - Avoid creating dust or paint chips. A power sander or grinder should have a hood to trap dust and a HEPA vacuum attachment.
   - Seal off the work area by covering floors, doors, windows and vents with heavy plastic and keep children and pregnant women away from the area.
   - Cover furniture with heavy plastic or remove it from the work area.
   - Wash floors and walls with soap and water.
   - Dispose of trash and dust in plastic bags.

3. **Keep your home free of lead dust.**
   - Clean floors and window sills often with soap and water and rinse with fresh water.
   - Be sure children wash their hands before eating, after playing outside and at bedtime.

4. **Watch where your children play.**
   - Don't let children play in bare soil.
   - Look for areas with grass or other safe coverings.

5. **Test your child for lead.**
   - Children may not show signs of lead poisoning. Check with your doctor about having your child tested. The test is easy and inexpensive.
   - Find out if your child is entitled to a free lead test. Children enrolled in Medicaid and other state health programs are eligible.

Let's give every child a lead-safe home!

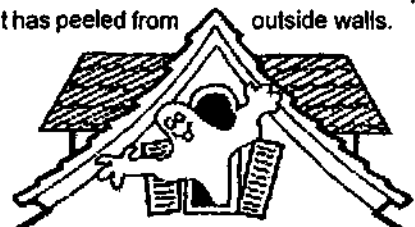
Is your home haunted by lead paint?

Learn the Risks of Lead Poisoning

- Lead is toxic. It can harm your child's brain and cause learning difficulties and behavior problems.
- Children under age six are most at risk. When a pregnant woman is exposed to lead, it can harm her unborn baby.
- It can happen to your child. Almost one million children in the United States under age six suffer from lead poisoning.

Lead Paint In Your Home Could Poison Your Children

- If your home was built before 1978, it probably has some lead paint.
- Most children are poisoned by lead dust that settles on floors and other surfaces where it can easily get on children's hands or toys and then in their mouths.
- Lead dust comes from peeling or damaged paint or from sanding or scraping paint in older homes.
- Dirt or bare soil can also contain lead from paint that has peeled from outside walls.



Colorado Department of Public Health & Environment
Lead Poisoning Prevention Program
(303) 692-2685
Lead-based Paint Program
(303) 692-3150

Denver Department of Environmental Health
(303) 285-4053

For additional information about making your home lead-safe, call 1-800-424-LEAD.

LEAD-SAFE AMERICA

hud

Lead Poisoning Prevention Program
Colorado Department of Public Health
& Environment

(303) 692-2700 or 1 (800) 886-7689

Ask for the Lead Program

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Lead Poisoning Prevention Program
Colorado Department of Public Health
& Environment

(303) 692-2700 or 1 (800) 886-7689

Ask for the Lead Program

Lead poisoning

is caused by swallowing or inhaling lead. Even small amounts can be harmful.

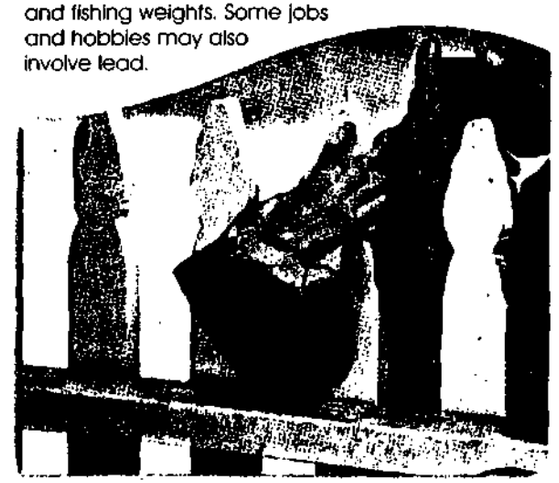
Lead paint is the major source of lead poisoning.

It's often found in homes built before 1978. Chipped or peeling lead paint may be swallowed. Lead dust – created when painted surfaces, such as window frames, rub against each other—may be swallowed or inhaled.

Other sources include contaminated:

- soil—by lead paint or leaded gasoline
- water—by lead from old plumbing
- air—by lead dust or lead-processing plants
- food—by lead dust, poorly-glazed pottery, lead crystal or imported (not U.S.) cans with lead seams.

Lead can come from other items, too—herbal remedies, cosmetics and fishing weights. Some jobs and hobbies may also involve lead.



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Young children face the greatest risk

Their bodies absorb lead easily.
They may put things into their mouths.

- Low levels of lead can cause permanent damage in children. This may affect their growth and mental abilities, making learning and concentration difficult.
- Very high lead levels may cause coma, convulsions and death.

Most children show no symptoms.

Warning signs of lead poisoning may include:

- stomach pains, constipation, frequent vomiting or poor appetite
- sleep problems, irritability, tiredness or headaches
- clumsiness, weakness or loss of recently learned skills.

Consult your health-care provider if you notice any of these signs. They're easily mistaken for illnesses like the flu.

There is a test for lead poisoning. A small blood sample is all it takes.

The publisher has taken care in the preparation of this folder, but the information it contains is not intended as a substitute for the expertise and judgment of qualified health-care professionals. You should consult with your health-care provider about all health-care issues.

Regular lead screening

is the best way to detect lead poisoning.

In general, all high-risk children need lead screening.

State or local health officials may consider a child at high risk if he or she

- lives in an area that has a high number of homes built before 1950
- lives in or regularly visits a home built before 1950
- lives in or regularly visits a home built before 1978 that has recently had remodeling
- has had a brother or sister with lead problems

State or local officials may have other screening guidelines

Find a lead screening location.

These may include health clinics, health-care providers, public health departments, WIC offices (Women, Infants and Children program) and child-care centers. Check your phone book for a location near you.

Don't put it off! Ask if your child needs testing. Get follow-up screenings as recommended.

Reduce your child's risk.

Along with having your paint, water and soil tested for lead:

Keep your home clean.

- Ask at a hardware store about lead-specific cleaning products.
- Clean weekly. Use a solution of water and cleaner to wet-mop floors and wipe windowsills and other surfaces. (Don't reuse cloths or sponges on dishes, counters, etc.)
- Don't dry-dust, sweep or vacuum (unless using a special vacuum). These can spread lead dust.
- Wipe dirt off shoes before coming inside.
- Make sure anything your child could put in his or her mouth is clean and free of lead paint.
- If you work with lead, shower and change before coming home. Wash your clothes separately. (Follow all occupational safety guidelines for cleaning and storing work clothes and equipment.)
- Watch for chipping and flaking paint.

Feed your child 3 healthy meals a day.

This—along with a diet high in iron, calcium and vitamin C, and low in fried and fatty foods—will help fight any lead in his or her body. Also:

- Draw drinking and cooking water only from the cold tap. Let it run for a few minutes first.
- Wash your hands before preparing snacks or meals.
- Teach your child to wash up before eating.
- Don't use pottery for cooking or serving if you're unsure about its glaze.

Keep play areas safe.

- Fill sandboxes with lead-free sand.
- Plant grass to cover dirt.
- Ask local officials to make playgrounds lead-safe.

Removing certain lead hazards in a home requires expert help—don't try to do it on your own!

Learn more.

Find out how to:

- have your home, water and soil tested for lead
- safely reduce any lead hazard (or have it removed)
- protect yourself and your family if you live in rented housing or are buying a house.

Contact:

- the National Lead Information Center at 1-800-424-LEAD (1-800-424-5323) or www.epa.gov/lead
- the EPA Safe Drinking Water Hotline at 1-800-426-4791
- local resources—a health-care provider, the public health department, the housing authority or a childhood lead poisoning prevention program.

Take steps to keep your child safe from lead. You can help prevent lead poisoning.

Pasos sencillos para proteger a su familia en contra de los riesgos relacionados con el plomo

Si cree que su casa tiene niveles altos de plomo:

- Haga que examinen a sus niños pequeños para determinar el nivel de plomo, incluso si parecen estar saludables.
- Lávele con frecuencia las manos a los niños, los biberones, los chupones y los juguetes.
- Asegúrese de que los niños coman alimentos nutritivos y bajos en grasa.
- Haga que examinen su casa para descubrir riesgos relacionados con el plomo.
- Limpie con regularidad los pisos, los alféizares de las ventanas y las demás superficies.
- Limpie la tierra de los zapatos antes de entrar en su casa.
- Hable con el propietario para que le arregle las superficies con pintura descascarada o picada.
- Tome medidas para evitar la exposición al polvo que contiene plomo al remodelar o renovar su casa (llame al 1-800-424-LEAD para obtener consejo).
- No use lijadoras de banda, sopletes de gas propano, pistolas de calor, raspadores en seco ni lijas de papel en seco en las superficies pintadas que pudieran tener plomo.
- No trate de remover usted mismo la pintura con base de plomo.

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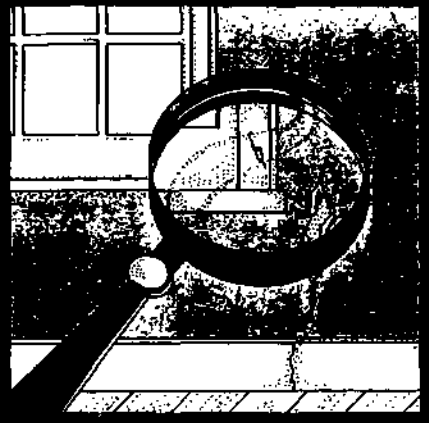


Proteja a Su Familia en Contra del Plomo en Su Casa

EPA Agencia de Protección Ambiental de los Estados Unidos (EPA)

Comisión de Seguridad de los Productos de Consumo de los Estados Unidos (CPSC)

Departamento de Desarrollo Urbano y de la Vivienda de los Estados Unidos (HUD)

U.S. EPA Washington DC 20460
U.S. CPSC Washington DC 20207

EPA747-K-01-001
April 2001

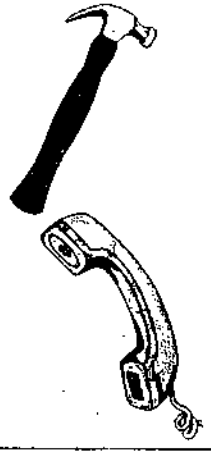
¿Está planeando comprar, alquilar o renovar una casa que se construyó antes de 1978?

Muchas casas y apartamentos construidos antes de 1978 tienen pintura que contiene plomo (llamada pintura con base de plomo). El plomo en la pintura, las partículas y el polvo puede ser un riesgo grave para la salud si no se atiende apropiadamente.

La ley federal requiere que las personas reciban cierta información antes de alquilar, comprar o renovar viviendas construidas antes de 1978:

LOS PROPIETARIOS tienen que revelar la información que posean acerca de la pintura con base de plomo y los riesgos relacionados con la misma antes de realizar el alquiler. Los contratos de alquiler deben incluir un formulario de divulgación acerca de la pintura con base de plomo.

LOS VENDEDORES tienen que divulgar la información que posean acerca de la pintura con base de plomo y los riesgos relacionados con la misma antes de vender una casa. Los contratos de venta deben incluir un formulario de divulgación acerca de la pintura con base de plomo. Los compradores tienen un plazo de 10 días para revisar si existen riesgos relacionados con el plomo.



LOS RENOVADORES tienen que darle este folleto antes de comenzar el trabajo.

SI DESEA MÁS INFORMACIÓN acerca de estos requisitos, llame a la National Lead Information Clearinghouse (Oficina Nacional de Distribución de Información sobre Plomo) al **1-800-424-LEAD**.

Este documento es del dominio público. Las personas u organizaciones pueden reproducirlo sin permiso. La información proporcionada en este folleto está basada en el entendimiento actual científico y técnico de los asuntos presentados y refleja los límites de jurisdicción establecidos por los estatutos que gobiernan a las agencias coautoras. Seguir los consejos que se ofrecen no proporcionará necesariamente una protección completa en todas las situaciones o contra todos los riesgos de salud que puede causar la exposición al plomo.

Oficinas Regionales de CPSC

Su oficina regional de CPSC puede proporcionarle más información relacionada con los reglamentos y la seguridad de los productos de consumo.

Eastern Regional Center
201 Varick Street, Room 903
New York, NY 10014
(212) 620-4120

Western Regional Center
1301 Clay Street, Suite 610N
Oakland, CA 94612
(510) 637-4053

Central Regional Center
230 South Dearborn Street
Room 2944
Chicago, IL 60604-1601
(312) 353-8260

Oficina de Asuntos Relacionados Con el Plomo de HUD

Favor de comunicarse con la Oficina de control de riesgos relacionados con el plomo para obtener más información acerca de los reglamentos relacionados con el plomo, esfuerzos de alcance comunitario y los programas de control de los riesgos relacionados con el plomo y estipendios para investigación.

Departamento de Desarrollo Urbano y de la Vivienda de los Estados Unidos (HUD)
U.S. Department of Housing and Urban Development
Office of Healthy Homes Initiative and Lead Hazard Control
451 Seventh Street, SW, P-3206
Washington, DC 20410
(202) 755-1785

Oficinas Regionales de la Agencia de Protección Ambiental (EPA)

Su oficina regional de EPA puede proporcionarle más información relacionada con las regulaciones y los programas de protección contra el plomo.

Oficinas Regionales de EPA

Región 1 (Connecticut, Massachusetts, Maine, New Hampshire, Rhode Island, Vermont)

Contacto regional para el plomo
U.S. EPA Region 1
Suite 1100 (CPT)
One Congress Street
Boston, MA 02114-2023
1 (800) 372-7341

Región 2 (New Jersey, New York, Puerto Rico, Virgin Islands)

Contacto regional para el plomo
U.S. EPA Region 2
2890 Woodbridge Avenue
Building 209, Mail Stop 225
Edison, NJ 08837-3679
(732) 321-6671

Región 3 (Delaware, Washington DC, Maryland, Pennsylvania, Virginia, West Virginia)

Contacto regional para el plomo
U.S. EPA Region 3 (3WC33)
1650 Arch Street
Philadelphia, PA 19103
(215) 814-5000

Región 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee)

Contacto regional para el plomo
U.S. EPA Region 4
61 Forsyth Street, SW
Atlanta, GA 30303
(404) 562-8998

Región 5 (Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin)

Contacto regional para el plomo
U.S. EPA Region 5 (DT-8)
77 West Jackson Boulevard
Chicago, IL 60604-3666
(312) 886-6003

Región 6 (Arkansas, Louisiana, New Mexico, Oklahoma, Texas)

Contacto regional para el plomo
U.S. EPA Region 6
1445 Ross Avenue, 12th Floor
Dallas, TX 75202-2733
(214) 665-7577.

Región 7 (Iowa, Kansas, Missouri, Nebraska)

Contacto regional para el plomo
U.S. EPA Region 7
(ARTD-RALI)
901 N. 5th Street
Kansas City, KS 66101
(913) 551-7020

Región 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming)

Contacto regional para el plomo
U.S. EPA Region 8
999 18th Street, Suite 500
Denver, CO 80202-2466
(303) 312-6021

Región 9 (Arizona, California, Hawaii, Nevada)

Contacto regional para el plomo
U.S. EPA Region 9
75 Hawthorne Street
San Francisco, CA 94105
(415) 744-1124

Región 10 (Idaho, Oregon, Washington, Alaska)

Contacto regional para el plomo
U.S. EPA Region 10
Toxics Section WCM-128
1200 Sixth Avenue
Seattle, WA 98101-1128
(206) 553-1985

¡IMPORTANTE!

El plomo de la pintura, del polvo y de la tierra puede ser peligroso si no se atiende apropiadamente

ES CIERTO QUE: La exposición al plomo puede hacerle daño a los niños pequeños y a los bebés aun antes del nacimiento.

ES CIERTO QUE: Aun los niños que parecen sanos pueden tener altos niveles de plomo en sus organismos.

ES CIERTO QUE: El plomo puede entrar en el organismo al inhalar o tragar polvo de plomo, o al comer tierra o partículas de pintura que contengan plomo.

ES CIERTO QUE: Las personas tienen muchas opciones para reducir los riesgos relacionados con el plomo. En la mayoría de los casos, la pintura con base de plomo que esté en buenas condiciones no es peligrosa.

ES CIERTO QUE: Remover incorrectamente la pintura con base de plomo puede aumentar los riesgos para su familia.

Si cree que su casa podría tener algún riesgo relacionado con el plomo, lea este folleto para aprender algunos pasos sencillos para proteger a su familia.

El plomo entra al organismo de muchas maneras

En los Estados Unidos cerca de 900,000 niños de 1 a 5 años de edad tienen un nivel de plomo en la sangre por encima del nivel de preocupación.

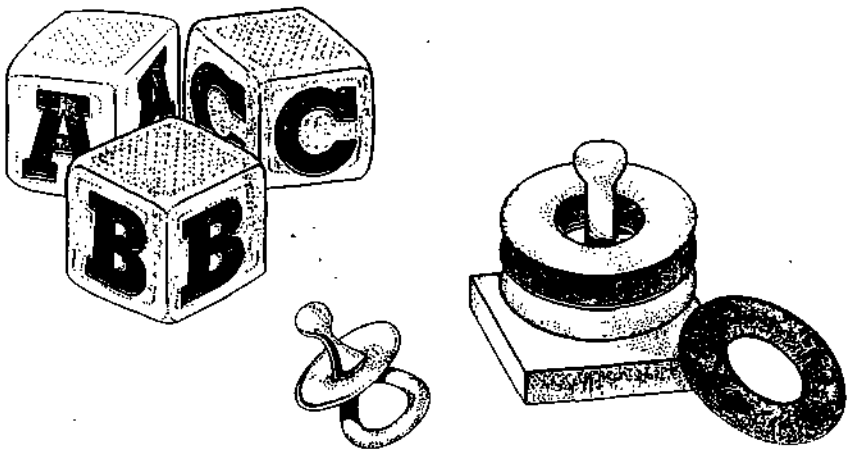
Aun los niños que parecen sanos pueden tener niveles peligrosos de plomo en sus organismos.

El plomo puede entrar en el organismo si:

- Se llevan a la boca las manos u otros objetos cubiertos con polvo de plomo.
- Comen partículas de pintura o tierra que contiene plomo.
- Inhalan el polvo de plomo (especialmente durante las renovaciones que alteran las superficies pintadas).

El plomo es aún más peligroso para los niños que para los adultos ya que:

- Los bebés y los niños pequeños se llevan las manos y otros objetos a la boca con frecuencia. Dichos objetos pueden estar cubiertos de polvo que contiene plomo.
- El cuerpo en crecimiento de los niños absorbe más plomo.
- El cerebro y el sistema nervioso de los niños son más sensibles a los efectos dañinos del plomo.

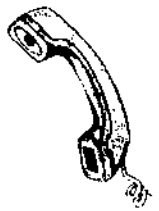


Para obtener más información

Centro Nacional de Información Sobre el Plomo

Llame al **1-800-424-LEAD** para averiguar cómo proteger a los niños del envenenamiento por plomo y para otra información sobre los riesgos relacionados con el plomo. (Internet: **www.epa.gov/lead** y **www.hud.gov/lea**).

Para las personas con impedimentos auditivos, llame al Servicio Federal de Retransmisión de Información al **1-800-877-8339** y pida el Centro Nacional de Información sobre el Plomo al **1-800-424-LEAD**.

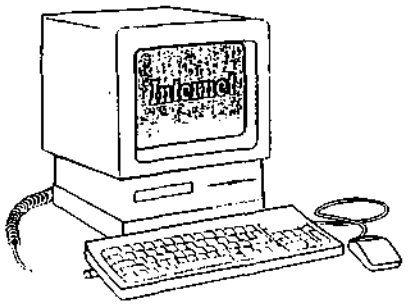


Línea directa de agua potable segura de EPA

Llame al **1-800-426-4791** para obtener información acerca del agua potable o por Internet en: **www.epa.gov/safewater.**

Línea directa de la Comisión de seguridad de los productos de consumo

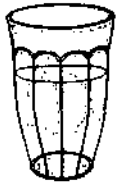
Para pedir información relacionada con el plomo en los productos de consumo, o para denunciar un producto de consumo inseguro o una lesión relacionada con un producto llame al **1-800-638-2772.** (Internet: **www.cpsc.gov**). Para las personas con impedimentos auditivos, llamar al TDD 1-800-638-8270.



Agencias Estatales del Medio Ambiente y de Salud

Algunas ciudades y estados tienen sus propias reglas para las actividades relacionadas con pintura con base de plomo. Consulte con su agencia estatal para ver si existen leyes estatales o locales que le correspondan. La mayoría de las agencias estatales también pueden proporcionarle información para conseguir una compañía de remoción de plomo en su área, y para conseguir posibles fuentes de ayuda financiera para la reducción de los riesgos relacionados con el plomo. Reciba la última información en direcciones y números telefónicos de contactos locales o estatales por Internet en **www.epa.gov/lead** o comuníquese con el Centro Nacional de Información sobre el Plomo al **1-800-424-LEAD**.

Otras fuentes de plomo



Aunque la pintura, el polvo y la tierra tienen los riesgos relacionados con plomo más comunes, existen también otras fuentes de plomo.

- **El agua potable.** Su casa podría tener tuberías de plomo o con soldadura de plomo. Llame al departamento local de salud o al proveedor de agua para averiguar cómo examinar el agua. El plomo no puede verse, olerse ni tiene sabor, y el hervir el agua no eliminará el plomo. Si cree que sus tuberías tienen plomo:
  - Use agua fría para beber y cocinar.
  - Deje correr el agua durante 15 a 30 segundos antes de beberla, especialmente si no se ha usado el agua durante algunas horas.
- **El trabajo.** Si trabaja con plomo, podría traerlo a su casa en las manos o en la ropa. Báñese y cámbiese la ropa antes de volver a casa. Lave la ropa de su trabajo por separado del resto de la ropa de la familia.
- **Los juguetes** y **muebles** viejos pintados.
- Alimentos y líquidos almacenados en **cristal de plomo** o **cerámica** o **porcelana con esmalte de plomo**.
- **Los hornos de fundición de plomo** u otras industrias que emiten plomo al aire.
- **Los pasatiempos** que usen plomo, tales como la alfarería o los vitrales, o el reacabado de muebles.
- **Los remedios** caseros que contengan plomo, tales como "greta" y "azarcón" que se usan para tratar padecimientos estomacales.

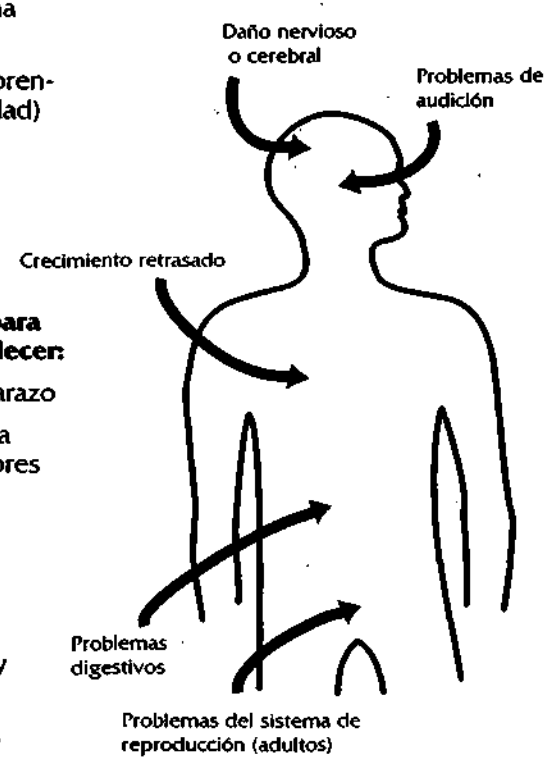
Los efectos del plomo

Si no se detectan pronto, los niños que tienen niveles altos de plomo en sus organismos pueden sufrir:

- Daños al cerebro y al sistema nervioso
- Problemas de conducta y aprendizaje (tal como hiperactividad)
- Crecimiento retrasado
- Problemas de audición
- Dolores de cabeza.

El plomo también es dañino para los adultos. Éstos pueden padecer:

- Dificultades durante el embarazo
- Otros problemas del sistema reproductor (tanto los hombres como las mujeres)
- Presión alta
- Problemas digestivos
- Padecimientos nerviosos
- Problemas con la memoria y la concentración
- Dolores musculares y de las articulaciones.



El plomo afecta al organismo de muchas maneras.

Dónde se encuentra la pintura con base de plomo

Generalmente, entre más vieja sea su casa, la posibilidad de que tenga pintura con base de plomo será mayor.

Muchas viviendas construidas antes de 1978 tienen pintura con base de plomo. El gobierno federal prohibió la pintura con base de plomo en las viviendas en 1978. Algunos estados dejaron de usarla aun antes. El plomo puede encontrarse en:

- Casas en la ciudad, el campo o los suburbios.
- En apartamentos, casas y viviendas privadas o públicas.
- Dentro y fuera de la casa.
- En la tierra alrededor de la casa. (La tierra puede recoger plomo de la pintura exterior u otras fuentes tales como la gasolina con plomo que se usaba en el pasado, en los automóviles.)

Para realizarle exámenes de plomo a su familia

Haga que examinen a sus niños y su casa si cree que ésta tiene niveles altos de plomo.

Para reducir la exposición de sus niños al plomo, realícele un examen a su niño y a su casa (especialmente si la pintura de su casa está en malas condiciones y se construyó antes de 1978), y arregle los riesgos que puedan existir. El nivel de plomo en la sangre de los niños tiende a incrementarse con rapidez entre los 6 y 12 meses de edad, y tiende a llegar al nivel más alto entre los 18 y 24 meses de edad.

Consulte a su médico para que le aconseje cómo examinar a sus niños. Un sencillo análisis de sangre puede detectar el nivel alto de plomo. Los análisis de sangre se recomiendan generalmente a:

- Los niños de 1 y 2 años de edad.
- Los niños u otros miembros de la familia que hayan estado expuestos a niveles altos de plomo.
- Los niños que deben examinarse bajo el plan local o estatal de exámenes médicos.

Su médico puede explicarle los resultados de las pruebas y decirle si es necesario realizar más análisis.

Remodelación o renovación de una casa que tiene pintura con base de plomo

Tome medidas de precaución antes de que el contratista o usted comience la remodelación o renovación que alterará las superficies pintadas (tales como el raspado de la pintura o la demolición de paredes):

- **Haga que examinen el área por si hay pintura con base de plomo.**
- **No use una lijadora de correa, un soplete de gas propano, una pistola de calor, un raspador seco o papel para lijar en seco** para remover la pintura con base de plomo. Estas acciones pueden crear grandes cantidades de gases y polvo que contiene plomo. El polvo que contiene plomo puede permanecer en su hogar mucho tiempo después de finalizar el trabajo.
- **Mude temporalmente a su familia** (especialmente los niños y las mujeres embarazadas) a otro sitio fuera del apartamento o la casa hasta que se termine el trabajo y el área se limpie correctamente. Si no puede cambiar de lugar a su familia, por lo menos selle completamente el área de trabajo.
- **Siga otras medidas de seguridad para reducir el riesgo relacionado con el plomo.** Usted puede encontrar información acerca de otras medidas de seguridad llamando al 1-800-424-LEAD. Pida el folleto "Reducing Lead Hazards When Remodeling Your Home (Reducción de los riesgos relacionados con el plomo al remodelar su casa)". Este folleto le explica qué hacer antes, durante y después de las renovaciones.

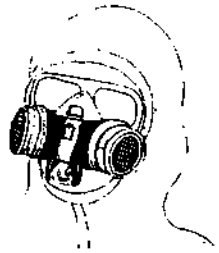
Si no se realizan correctamente, ciertos tipos de renovación pueden liberar el plomo de la pintura y el polvo al aire.

Si ya terminó las renovaciones o la remodelación de su casa y existe la posibilidad de que se haya emitido pintura o polvo con base de plomo, haga que examinen a sus niños pequeños y siga los pasos que se indican en la página 7 de este folleto.

Como reducir significativamente los riesgos relacionados con el plomo

La remoción incorrecta del plomo puede aumentar el riesgo para su familia ya que esparce aún más el polvo de plomo en la casa.

Siempre use los servicios de un profesional que esté capacitado para remover plomo de modo seguro.



Además de la limpieza diaria y la buena nutrición:

- Usted puede reducir **temporalmente** los riesgos relacionados con el plomo tomando medidas como la reparación de las superficies pintadas que estén dañadas y plantar césped para cubrir la tierra que tiene niveles altos de plomo. Estas medidas (llamadas "controles provisionales") no son soluciones permanentes y necesitarán atención continua.
- Para remover **permanentemente** los riesgos relacionados con el plomo, usted debe contratar a un contratista certificado para la "remoción" del plomo. Los métodos de remoción (o eliminación permanente del peligro) incluyen la eliminación, el sellado o revestimiento de la pintura con base de plomo con materiales especiales. No es suficiente con pintar simplemente sobre el riesgo con una pintura común.

Siempre contrate a una persona con capacitación especial en la corrección de los problemas con plomo—alguien que sepa cómo realizar este trabajo en forma segura y que tenga el equipo apropiado para limpiar minuciosamente. Los contratistas certificados contratarán trabajadores calificados y seguirán reglas estrictas de seguridad según lo dicta el estado o el gobierno federal.

Llame a su agencia estatal (vea la página 11) para obtener ayuda para localizar contratistas certificados en su localidad y para enterarse si hay ayuda financiera disponible.

Dónde el plomo puede ser un riesgo

La pintura con base de plomo plomo que esté en buenas condiciones generalmente no es peligrosa.

La pintura con base de plomo que esté descascarándose, picándose, pulverizándose o partiéndose es un riesgo y necesita atención inmediata.

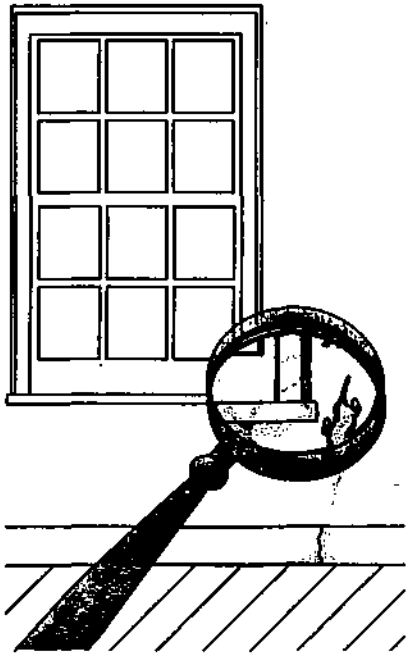
La pintura con base de plomo también puede ser un riesgo si se encuentra en superficies que los niños puedan morder o que reciban mucho desgaste. Estas áreas incluyen:

- Ventanas y alféizares.
- Puertas y marcos.
- Escaleras, pasamanos y barandas.
- Balcones y cercas.

Tanto el plomo de las partículas de pintura que se pueden ver, como el polvo de plomo, el cual no siempre se puede ver, pueden ser un grave peligro.

El **polvo de plomo** puede formarse al lijar o raspar en seco o al calentar la pintura con base de plomo. También puede formarse el polvo cuando las superficies pintadas se golpean o frotan entre sí. Las partículas y el polvo que contienen plomo pueden acumularse en superficies y objetos que las personas tocan. El polvo de plomo que se ha posado puede volver a mezclarse con el aire cuando las personas aspiran, barren o caminan sobre el mismo.

El **plomo en la tierra** puede ser un riesgo al jugar los niños en tierra descubierta o cuando las personas meten tierra en la casa con los zapatos. Llame a su agencia estatal (vea la página 11) para enterarse acerca de las pruebas de plomo en la tierra.



Para revisar si su casa tiene riesgos de plomo

Saber que su casa tiene pintura con base de plomo podría no decirle si hay peligro.

Usted puede hacer que examinen si hay algún riesgo relacionado con el plomo en su casa de una de dos maneras, o de ambas maneras:

- Una **inspección** de la pintura le dará el contenido de plomo de cada tipo diferente de superficie pintada en su casa. No le dirá si la pintura es un riesgo o cómo deberá atenderla.
- Una **evaluación de riesgo** le dirá si existe alguna fuente grave de exposición al plomo (tal como pinturas descascarándose y polvo que contiene plomo). También le dirá qué acciones debe realizar para atacar estos riesgos.

Solamente el personal profesional calificado puede realizar el trabajo. *Existen normas para certificar profesionales que trabajan con pinturas con base de plomo para asegurarse que el trabajo se realice de manera confiable, eficaz y saludable.* Comuníquese con el programa estatal para la prevención del envenenamiento con plomo para obtener más información. Llame al 1-800-424-LEAD para obtener una lista de contactos en su área.

Los profesionales capacitados usan una variedad de métodos para examinar su casa, los mismos incluyen:

- Inspección visual de las condiciones y la ubicación de la pintura.
- Una máquina portátil de fluorescencia por rayos X (XRF).
- Pruebas de laboratorio de las muestras de la pintura.
- Pruebas del polvo de las superficies.

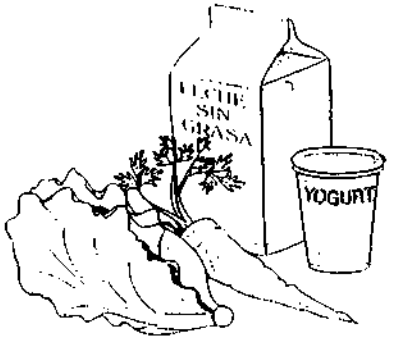
Los estuches caseros para pruebas de plomo están disponibles, pero las pruebas científicas sugieren que no siempre son precisos. Los consumidores no deben atenerse a estas pruebas antes de hacer renovaciones o para garantizar la seguridad.

Lo que puede hacer ahora para proteger a su familia

Si sospecha que su casa tiene algún riesgo relacionado con el plomo, puede tomar algunas medidas inmediatas para reducir el riesgo a su familia:

- **Si alquila la casa, infórmele al propietario si hay pintura descascarándose o picándose.**
- **Limpie inmediatamente las partículas de pintura.**
- **Limpie semanalmente los pisos, los marcos de ventanas, los alféizares y las demás superficies.** Use un trapeador o una esponja con agua tibia y un limpiador para usos múltiples o uno hecho específicamente para plomo. RECUERDE: NUNCA MEZCLE PRODUCTOS DE AMONÍACO CON BLANQUEADORES YA QUE PUEDEN FORMAR GASES PELIGROSOS.

- **Enjuague completamente las esponjas y los trapeadores después de limpiar áreas sucias o con polvo.**
- **Lávele con frecuencia las manos a los niños, especialmente antes de que coman, antes de las siestas y antes de irse a dormir.**
- **Mantenga limpias las áreas de juego.** Lave con regularidad los biberones, chupones, juguetes y animales de peluche.
- **No permita que los niños muerdan los alféizares de las ventanas ni las demás superficies pintadas.**
- **Límpiese o quítese los zapatos antes de entrar a la casa para evitar meter el plomo de la tierra.**
- **Asegúrese de que los niños coman alimentos nutritivos, bajos en grasa y altos en hierro y calcio,** tales como las espinacas y los productos lácteos. Los niños con una dieta buena absorben menos plomo.



Simple Steps To Protect Your Family From Lead Hazards

If you think your home has high levels of lead:

- Get your young children tested for lead, even if they seem healthy.
- Wash children's hands, bottles, pacifiers, and toys often.
- Make sure children eat healthy, low-fat foods.
- Get your home checked for lead hazards.
- Regularly clean floors, window sills, and other surfaces.
- Wipe soil off shoes before entering house.
- Talk to your landlord about fixing surfaces with peeling or chipping paint.
- Take precautions to avoid exposure to lead dust when remodeling or renovating (call 1-800-424-LEAD for guidelines).
- Don't use a belt-sander, propane torch, heat gun, dry scraper, or dry sandpaper on painted surfaces that may contain lead.
- Don't try to remove lead-based paint yourself.

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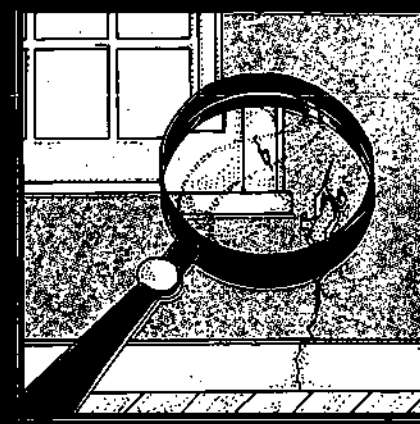
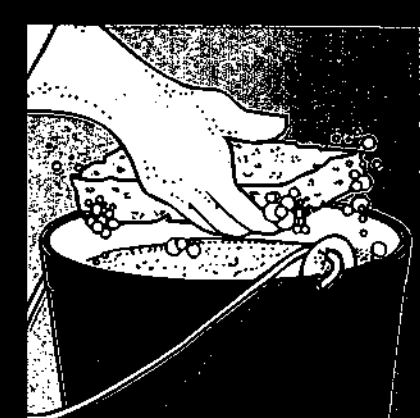




Protect Your Family From Lead In Your Home

EPA United States Environmental Protection Agency

United States Consumer Product Safety Commission

United States Department of Housing and Urban Development

U.S. EPA Washington DC 20460
U.S. CPSC Washington DC 20207
U.S. HUD Washington DC 20410

EPA747-K-99-001
April 1999

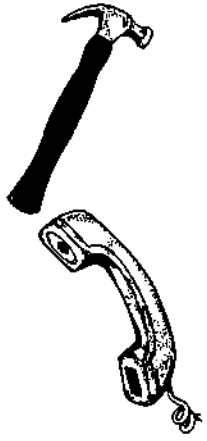
Are You Planning To Buy, Rent, or Renovate a Home Built Before 1978?

Many houses and apartments built before 1978 have paint that contains lead (called lead-based paint). Lead from paint, chips, and dust can pose serious health hazards if not taken care of properly.

Federal law requires that individuals receive certain information before renting, buying, or renovating pre-1978 housing:

LANDLORDS have to disclose known information on lead-based paint and lead-based paint hazards before leases take effect. Leases must include a disclosure form about lead-based paint.

SELLERS have to disclose known information on lead-based paint and lead-based paint hazards before selling a house. Sales contracts must include a disclosure form about lead-based paint. Buyers have up to 10 days to check for lead hazards.



RENOVATORS have to give you this pamphlet before starting work. (After June 1, 1999.)

IF YOU WANT MORE INFORMATION on these requirements, call the National Lead Information Clearinghouse at **1-800-424-LEAD**.

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CPSC Regional Offices

Your Regional CPSC Office can provide further information regarding regulations and consumer product safety.

Eastern Regional Center
6 World Trade Center
Vesey Street, Room 350
New York, NY 10048
(212) 466-1612

Central Regional Center
230 South Dearborn Street
Room 2944
Chicago, IL 60604-1601
(312) 353-8260

Western Regional Center
600 Harrison Street, Room 245
San Francisco, CA 94107
(415) 744-2966

HUD Lead Office

Please contact HUD's Office of Lead Hazard Control for information on lead regulations, outreach efforts, and lead hazard control and research grant programs.

U.S. Department of Housing and Urban Development
Office of Lead Hazard Control
451 Seventh Street, SW, P-3206
Washington, DC 20410
(202) 755-1785

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EPA Regional Offices

Your Regional EPA Office can provide further information regarding regulations and lead protection programs.

EPA Regional Offices

Region 1 (Connecticut, Massachusetts, Maine, New Hampshire, Rhode Island, Vermont)

Regional Lead Contact
U.S. EPA Region 1
Suite 1100 (CPT)
One Congress Street
Boston, MA 02114-2023
1 (888) 372-7341

Region 2 (New Jersey, New York, Puerto Rico, Virgin Islands)

Regional Lead Contact
U.S. EPA Region 2
2890 Woodbridge Avenue
Building 209, Mail Stop 225
Edison, NJ 08837-3679
(732) 321-6671

Region 3 (Delaware, Washington DC, Maryland, Pennsylvania, Virginia, West Virginia)

Regional Lead Contact
U.S. EPA Region 3 (3WC33)
1650 Arch Street
Philadelphia, PA 19103
(215) 814-5000

Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee)

Regional Lead Contact
U.S. EPA Region 4
61 Forsyth Street, SW
Atlanta, GA 30303
(404) 562-8998

Region 5 (Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin)

Regional Lead Contact
U.S. EPA Region 5 (DT-8J)
77 West Jackson Boulevard
Chicago, IL 60604-3666
(312) 886-6003

Region 6 (Arkansas, Louisiana, New Mexico, Oklahoma, Texas)

Regional Lead Contact
U.S. EPA Region 6
1445 Ross Avenue, 12th Floor
Dallas, TX 75202-2733
(214) 665-7577

Region 7 (Iowa, Kansas, Missouri, Nebraska)

Regional Lead Contact
U.S. EPA Region 7
(ARTD-RALI)
901 N. 5th Street
Kansas City, KS 66101
(913) 551-7020

Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming)

Regional Lead Contact
U.S. EPA Region 8
999 18th Street, Suite 500
Denver, CO 80202-2466
(303) 312-6021

Region 9 (Arizona, California, Hawaii, Nevada)

Regional Lead Contact
U.S. Region 9
75 Hawthorne Street
San Francisco, CA 94105
(415) 744-1124

Region 10 (Idaho, Oregon, Washington, Alaska)

Regional Lead Contact
U.S. EPA Region 10
Toxics Section WCM-128
1200 Sixth Avenue
Seattle, WA 98101-1128
(206) 553-1985

IMPORTANT!

Lead From Paint, Dust, and Soil Can Be Dangerous If Not Managed Properly

FACT: Lead exposure can harm young children and babies even before they are born.

FACT: Even children who seem healthy can have high levels of lead in their bodies.

FACT: People can get lead in their bodies by breathing or swallowing lead dust, or by eating soil or paint chips containing lead.

FACT: People have many options for reducing lead hazards. In most cases, lead-based paint that is in good condition is not a hazard.

FACT: Removing lead-based paint improperly can increase the danger to your family.

If you think your home might have lead hazards, read this pamphlet to learn some simple steps to protect your family.

Lead Gets in the Body in Many Ways

In the United States, about 900,000 children ages 1 to 5 have a blood-lead level above the level of concern.

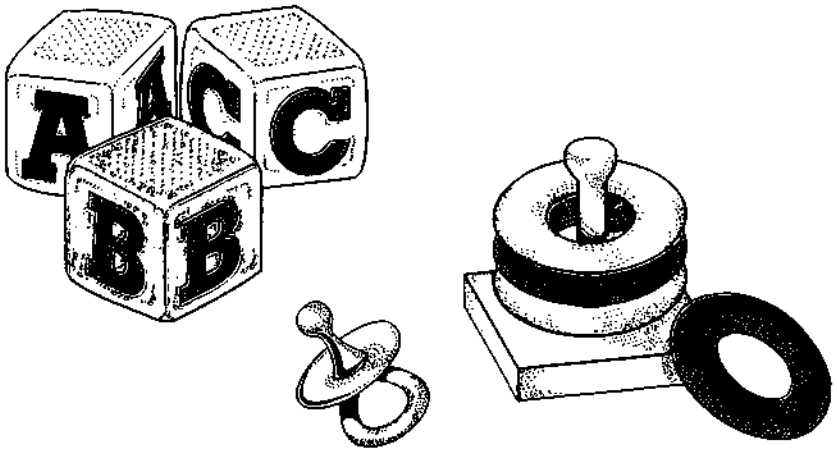
Even children who appear healthy can have dangerous levels of lead in their bodies.

People can get lead in their body if they:

- Put their hands or other objects covered with lead dust in their mouths.
- Eat paint chips or soil that contains lead.
- Breathe in lead dust (especially during renovations that disturb painted surfaces).

Lead is even more dangerous to children than adults because:

- Babies and young children often put their hands and other objects in their mouths. These objects can have lead dust on them.
- Children's growing bodies absorb more lead.
- Children's brains and nervous systems are more sensitive to the damaging effects of lead.

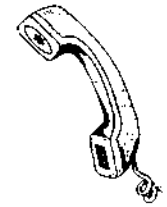


For More Information

The National Lead Information Center

Call **1-800-424-LEAD** to learn how to protect children from lead poisoning and for other information on lead hazards. (Internet: **www.epa.gov/lead** and **www.hud.gov/lea**).

For the hearing impaired, call the Federal Information Relay Service at **1-800-877-8339** and ask for the National Lead Information Center at **1-800-424-LEAD.**

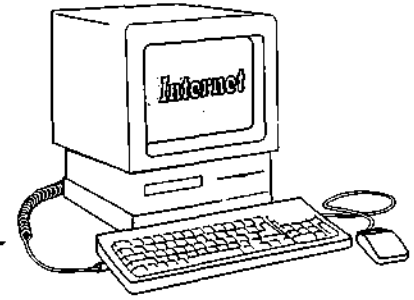


EPA's Safe Drinking Water Hotline

Call **1-800-426-4791** for information about lead in drinking water.

Consumer Product Safety Commission Hotline

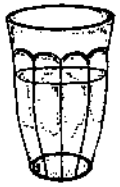
To request information on lead in consumer products, or to report an unsafe consumer product or a product-related injury call **1-800-638-2772.** (Internet: www@cpsc.gov). For the hearing impaired, call **TDD 1-800-638-8270.**



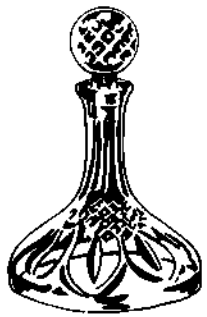
State Health and Environmental Agencies

Some cities and states have their own rules for lead-based paint activities. Check with your state agency to see if state or local laws apply to you. Most state agencies can also provide information on finding a lead abatement firm in your area, and on possible sources of financial aid for reducing lead hazards. Receive up-to-date address and phone information for state and local contacts on the Internet at **www.epa.gov/lead** or contact the National Lead Information Center at **1-800-424-LEAD.**

Other Sources of Lead



While paint, dust, and soil are the most common lead hazards, other lead sources also exist.



- **Drinking water.** Your home might have plumbing with lead or lead solder. Call your local health department or water supplier to find out about testing your water. You cannot see, smell, or taste lead, and boiling your water will not get rid of lead. If you think your plumbing might have lead in it:
  - Use only cold water for drinking and cooking.
  - Run water for 15 to 30 seconds before drinking it, especially if you have not used your water for a few hours.
- **The job.** If you work with lead, you could bring it home on your hands or clothes. Shower and change clothes before coming home. Launder your work clothes separately from the rest of your family's clothes.
- Old painted **toys** and **furniture.**
- Food and liquids stored in **lead crystal** or **lead-glazed pottery or porcelain.**
- **Lead smelters** or other industries that release lead into the air.
- **Hobbies** that use lead, such as making pottery or stained glass, or refinishing furniture.
- **Folk remedies** that contain lead, such as "greta" and "azarcon" used to treat an upset stomach.

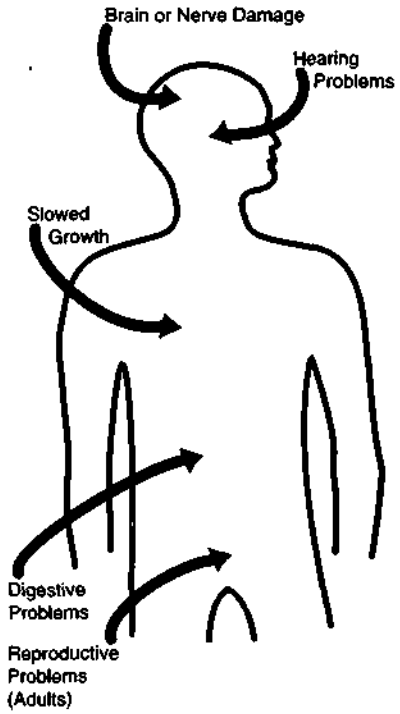
Lead's Effects

If not detected early, children with high levels of lead in their bodies can suffer from:

- Damage to the brain and nervous system
- Behavior and learning problems (such as hyperactivity)
- Slowed growth
- Hearing problems
- Headaches

Lead is also harmful to adults. Adults can suffer from:

- Difficulties during pregnancy
- Other reproductive problems (in both men and women)
- High blood pressure
- Digestive problems
- Nerve disorders
- Memory and concentration problems
- Muscle and joint pain



Lead affects the body in many ways.

Where Lead-Based Paint Is Found

In general, the older your home, the more likely it has lead-based paint.

Many homes built before 1978 have lead-based paint. The federal government banned lead-based paint from housing in 1978. Some states stopped its use even earlier. Lead can be found:

- In homes in the city, country, or suburbs.
- In apartments, single-family homes, and both private and public housing.
- Inside *and* outside of the house.
- In soil around a home. (Soil can pick up lead from exterior paint or other sources such as past use of leaded gas in cars.)

Checking Your Family for Lead

Get your children and home tested if you think your home has high levels of lead.

To reduce your child's exposure to lead, get your child checked, have your home tested (especially if your home has paint in poor condition and was built before 1978), and fix any hazards you may have. Children's blood lead levels tend to increase rapidly from 6 to 12 months of age, and tend to peak at 18 to 24 months of age.

Consult your doctor for advice on testing your children. A simple blood test can detect high levels of lead. Blood tests are usually recommended for:

- Children at ages 1 and 2.
- Children or other family members who have been exposed to high levels of lead.
- Children who should be tested under your state or local health screening plan.

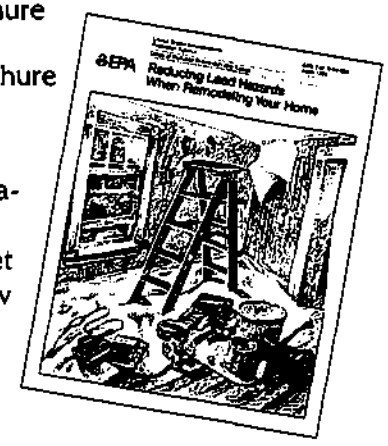
Your doctor can explain what the test results mean and if more testing will be needed.

Remodeling or Renovating a Home With Lead-Based Paint

Take precautions before your contractor or you begin remodeling or renovations that disturb painted surfaces (such as scraping off paint or tearing out walls):

- **Have the area tested for lead-based paint.**
- **Do not use a belt-sander, propane torch, heat gun, dry scraper, or dry sandpaper** to remove lead-based paint. These actions create large amounts of lead dust and fumes. Lead dust can remain in your home long after the work is done.
- **Temporarily move your family** (especially children and pregnant women) out of the apartment or house until the work is done and the area is properly cleaned. If you can't move your family, at least completely seal off the work area.
- **Follow other safety measures to reduce lead hazards.** You can find out about other safety measures by calling 1-800-424-LEAD. Ask for the brochure "Reducing Lead Hazards When Remodeling Your Home." This brochure explains what to do before, during, and after renovations.

If not conducted properly, certain types of renovations can release lead from paint and dust into the air.



If you have already completed renovations or remodeling that could have released lead-based paint or dust, get your young children tested and follow the steps outlined on page 7 of this brochure.

How To Significantly Reduce Lead Hazards

Removing lead improperly can increase the hazard to your family by spreading even more lead dust around the house.

Always use a professional who is trained to remove lead hazards safely.

In addition to day-to-day cleaning and good nutrition:

- You can **temporarily** reduce lead hazards by taking actions such as repairing damaged painted surfaces and planting grass to cover soil with high lead levels. These actions (called "interim controls") are not permanent solutions and will need ongoing attention.
- To **permanently** remove lead hazards, you must hire a certified lead "abatement" contractor. Abatement (or permanent hazard elimination) methods include removing, sealing, or enclosing lead-based paint with special materials. Just painting over the hazard with regular paint is not enough.

Always hire a person with special training for correcting lead problems—someone who knows how to do this work safely and has the proper equipment to clean up thoroughly. Certified contractors will employ qualified workers and follow strict safety rules as set by their state or by the federal government.

Call your state agency (see page 11) for help with locating certified contractors in your area and to see if financial assistance is available.

Where Lead Is Likely To Be a Hazard

Lead from paint chips, which you can see, and lead dust, which you can't always see, can both be serious hazards.

Lead-based paint that is in good condition is usually not a hazard.

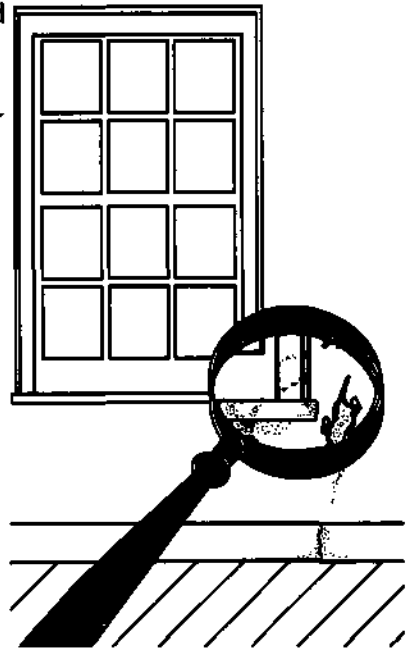
Peeling, chipping, chalking, or cracking lead-based paint is a hazard and needs immediate attention.

Lead-based paint may also be a hazard when found on surfaces that children can chew or that get a lot of wear-and-tear. These areas include:

- Windows and window sills.
- Doors and door frames.
- Stairs, railings, and banisters.
- Porches and fences.

Lead dust can form when lead-based paint is dry scraped, dry sanded, or heated. Dust also forms when painted surfaces bump or rub together. Lead chips and dust can get on surfaces and objects that people touch. Settled lead dust can re-enter the air when people vacuum, sweep, or walk through it.

Lead in soil can be a hazard when children play in bare soil or when people bring soil into the house on their shoes. Call your state agency (see page 11) to find out about testing soil for lead.



Checking Your Home for Lead Hazards

Just knowing that a home has lead-based paint may not tell you if there is a hazard.

You can get your home checked for lead hazards in one of two ways, or both:

- A paint **inspection** tells you the lead content of every different type of painted surface in your home. It won't tell you whether the paint is a hazard or how you should deal with it.
- A **risk assessment** tells you if there are any sources of serious lead exposure (such as peeling paint and lead dust). It also tells you what actions to take to address these hazards.

Have qualified professionals do the work. *There are standards in place for certifying lead-based paint professionals to ensure the work is done safely, reliably, and effectively.* Contact your state lead poisoning prevention program for more information. Call 1-800-424-LEAD for a list of contacts in your area.

Trained professionals use a range of methods when checking your home, including:

- Visual inspection of paint condition and location.
- A portable x-ray fluorescence (XRF) machine.
- Lab tests of paint samples.
- Surface dust tests.

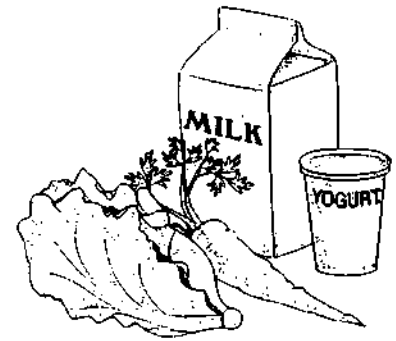
Home test kits for lead are available, but studies suggest that they are not always accurate. Consumers should not rely on these tests before doing renovations or to assure safety.

What You Can Do Now To Protect Your Family

If you suspect that your house has lead hazards, you can take some immediate steps to reduce your family's risk:

- **If you rent, notify your landlord of peeling or chipping paint.**
- **Clean up paint chips immediately.**
- **Clean floors, window frames, window sills, and other surfaces weekly.** Use a mop or sponge with warm water and a general all-purpose cleaner or a cleaner made specifically for lead. REMEMBER: NEVER MIX AMMONIA AND BLEACH PRODUCTS TOGETHER SINCE THEY CAN FORM A DANGEROUS GAS.

- **Thoroughly rinse sponges and mop heads after cleaning dirty or dusty areas.**
- **Wash children's hands often, especially before they eat and before nap time and bed time.**
- **Keep play areas clean.** Wash bottles, pacifiers, toys, and stuffed animals regularly.
- **Keep children from chewing window sills or other painted surfaces.**
- **Clean or remove shoes before entering your home to avoid tracking in lead from soil.**
- **Make sure children eat nutritious, low-fat meals high in iron and calcium,** such as spinach and dairy products. Children with good diets absorb less lead.



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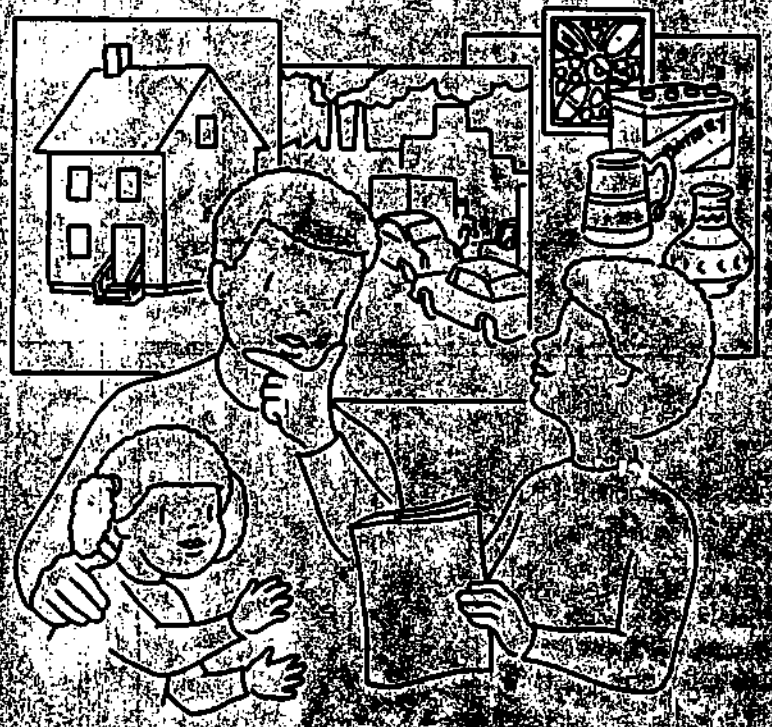
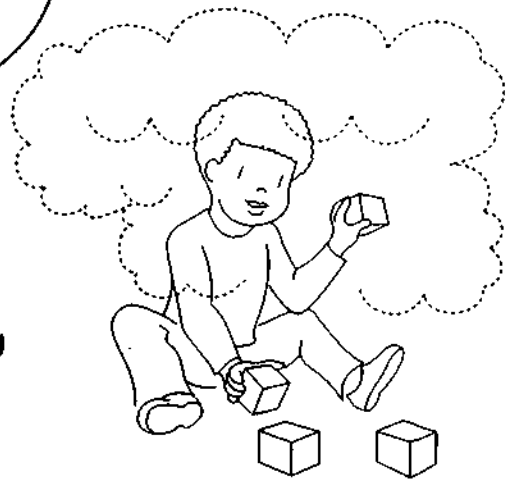
What everyone should know about

LEAD POISONING



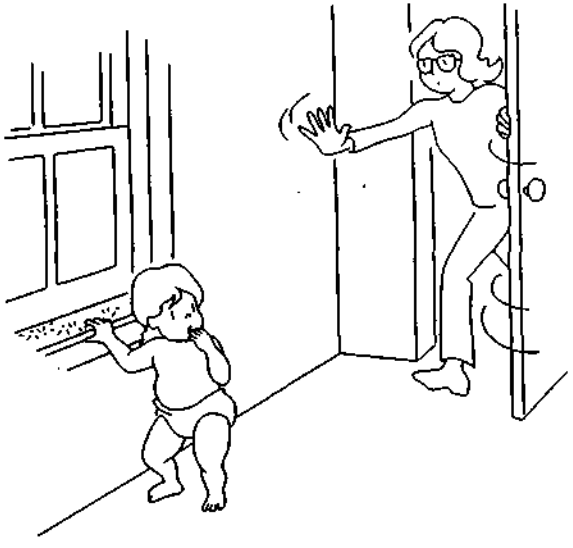
WHAT IS LEAD POISONING?

It's a disease caused by swallowing or inhaling lead. Even small amounts of lead can be harmful.



YOUNG CHILDREN FACE THE GREATEST RISKS

- Their bodies absorb lead more easily than adults' do.
- They put everything into their mouths -- no matter how hard you try to keep an eye on them.



This booklet is not a substitute for an informed discussion between a parent and his or her child's health-care provider about lead poisoning screening, detection or treatment.

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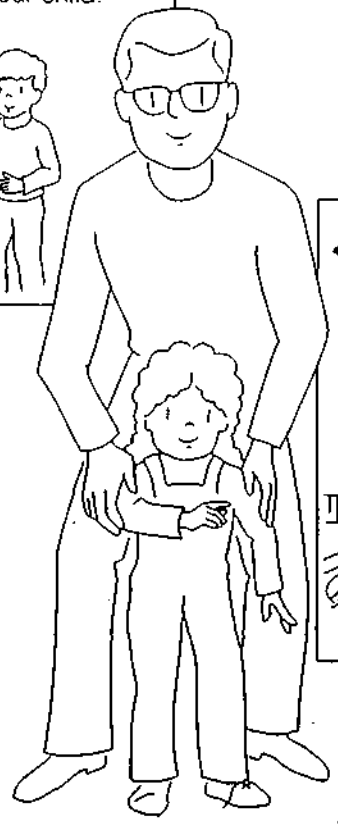
Price List A
1996 Edition

SOO--

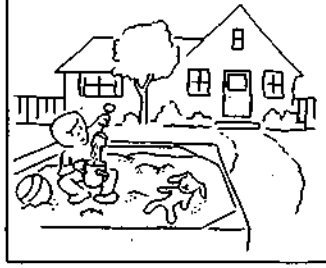
LEAD POISONING IS A SERIOUS THREAT TO CHILDREN

But, it can be prevented. Protect your child with:

✓ Ask your health-care provider about screening schedules for your child.



✓ A SAFE HOME AND PLAY AREA
Take steps to lower your child's risk of lead poisoning.



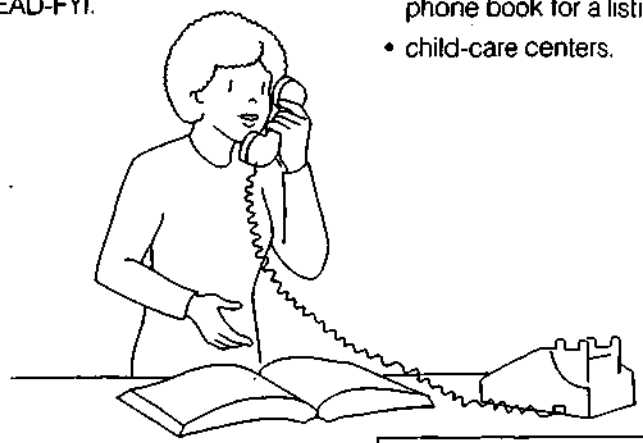
[illegible] spread the word [illegible] parents, too

HELP IS AVAILABLE

FOR MORE INFORMATION,
contact your:

- local housing authority
- local childhood lead poisoning prevention program
- local water department (about water pipe contamination)
- local poison control center
- cooperative extension service (about food protection).

Or, call the National Lead Information Center at 1-800-LEAD-FYI.



LEAD SCREENING LOCATIONS
may include:

- health clinics
- family health-care providers or pediatricians
- public health departments.

In some places, screening may also be available at:

- WIC offices (Women, Infants and Children program -- check your phone book for a listing)
- child-care centers.

IN SOME PLACES, OUTREACH WORKERS
may visit older neighborhoods to:

- alert parents to the dangers of lead
- look for signs of peeling paint
- educate parents about symptoms and screening
- do the screening.

[illegible]
There are laws to protect people against lead poisoning. Whether you live in a house or apartment, own or rent your home, or are looking to buy a home, find out what your rights are. Ask your local or state health department or housing/building official for more information.

WHY IS IT IMPORTANT TO KNOW ABOUT LEAD POISONING?

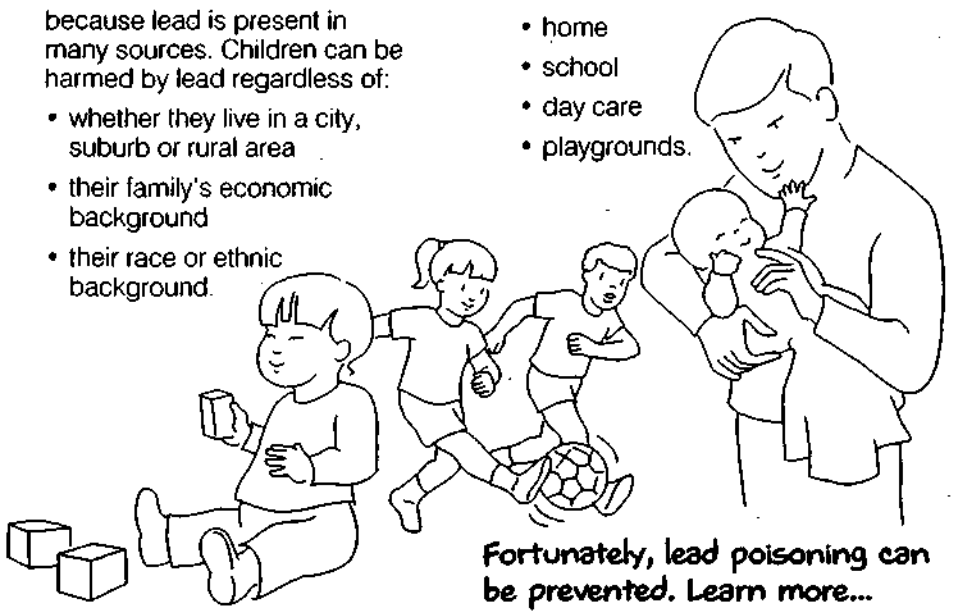
Because it's very common. It affects millions of American children.

[illegible] BE AT RISK
because lead is present in many sources. Children can be harmed by lead regardless of:

- whether they live in a city, suburb or rural area
- their family's economic background
- their race or ethnic background.

CHILDREN MAY BE EXPOSED TO LEAD AT:

- home
- school
- day care
- playgrounds.



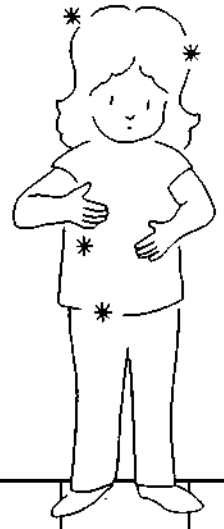
Fortunately, lead poisoning can be prevented. Learn more...

HOW LEAD AFFECTS CHILDREN

AT LOWER LEVELS,
the effects may not be obvious. But, low levels of lead may:

- damage the nervous system, including the brain
- interfere with growth
- harm hearing
- lower IQ scores
- make learning difficult.

Low-level lead poisoning may also affect a child's behavior, making them more excitable or less able to concentrate.



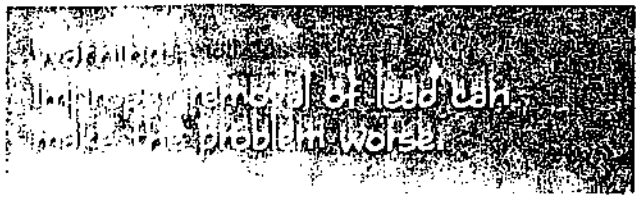
AT VERY HIGH LEVELS,
lead may cause:

- coma
- convulsions
- death.

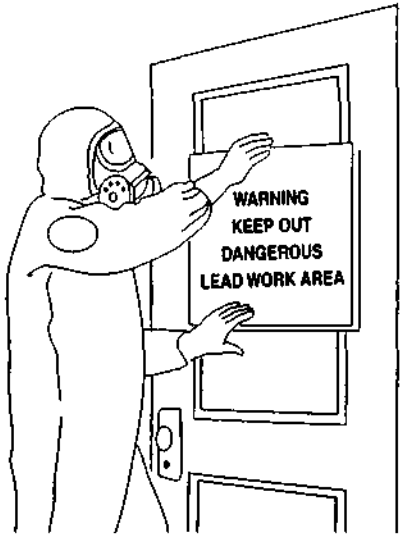
Even small amounts can cause severe and lasting harm to children!

THE LEAD SOURCE

is important. But in general, don't do it yourself.



-- it's safest to have a qualified professional remove or cover lead paint. Some states require it.



Simply painting over lead paint won't protect a child. The paint will continue to flake and chip.

IF YOU HAVE ANY LEAD SOURCE REMOVED,
get local or state advice. Ask about:

- hiring a professional
- health and safety requirements and precautions
- safely removing paint or covering it with paneling or plaster wallboard
- safely replacing woodwork, windows, etc.
- removing contaminated soil properly
- correcting lead problems in plumbing safely.

SOME SAFETY TIPS
for renovations or paint removal:

- Follow all health and safety requirements.
- Have all occupants stay away until after cleanup.
- Store furniture, rugs, food, dishes, etc., away from home until after cleanup.

MORE THINGS YOU CAN DO

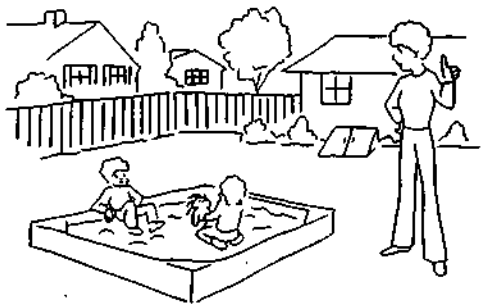
if you think there may be lead in your child's environment:

INDOORS

- Tell all adults in the house to be alert to the threat and to watch children closely.
- Wet mop hard surfaces frequently with a high-phosphate detergent or powdered dishwasher detergent. Sweeping or vacuuming only spreads the dust.

OUTDOORS

- Build a sandbox (using lead-free play sand) so children can play safely.
- Plant your garden in a safe, lead-free area away from painted buildings and busy roads.



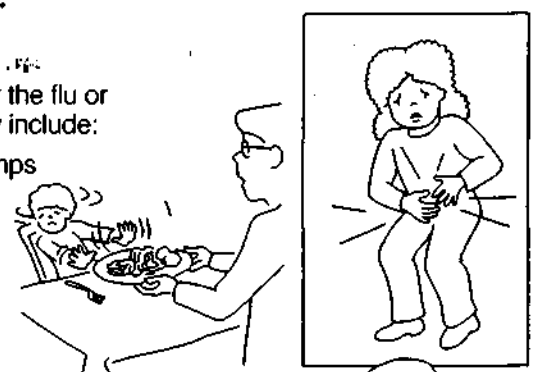
SIGNS OF LEAD POISONING

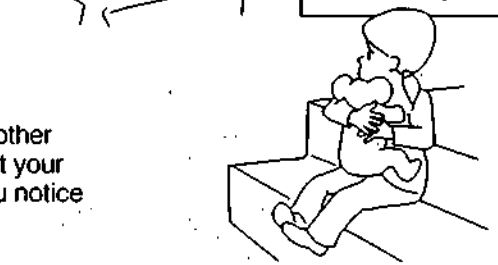
are not always clear.

they may be mistaken for the flu or other illnesses. They may include:

- stomachache and cramps
- irritability
- fatigue
- frequent vomiting
- constipation
- headache
- sleep disorders
- poor appetite.

These may also indicate other health conditions. Consult your health-care provider if you notice any of these symptoms.





IF MORE LEAD IS IN YOU, you may notice:

- clumsiness
- weakness
- loss of recently learned skills.

IT'S EASIER TO PREVENT LEAD POISONING than to treat it. Because the symptoms aren't clear, it's important to get your child tested and know how to lower your child's risks.

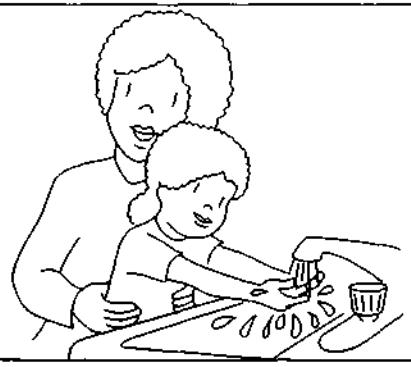
SOURCES OF LEAD IN YOUR CHILD'S ENVIRONMENT

may include:

PAINTED SURFACES

Lead paint is the major source of lead poisoning in the U.S. Homes built before 1978 are likely to have lead paint -- on the inside or outside. Lead paint can also be found on older toys and furniture. The biggest threat of lead paint comes from:

- fine lead dust, created when doors, windows or other painted surfaces rub against each other (lead dust may be difficult to see)
- chipped or peeling lead paint.



WATER

Your cooking and drinking water can be contaminated by:

- lead water pipes
- plumbing fittings made out of brass or bronze
- lead solder used to connect plumbing.

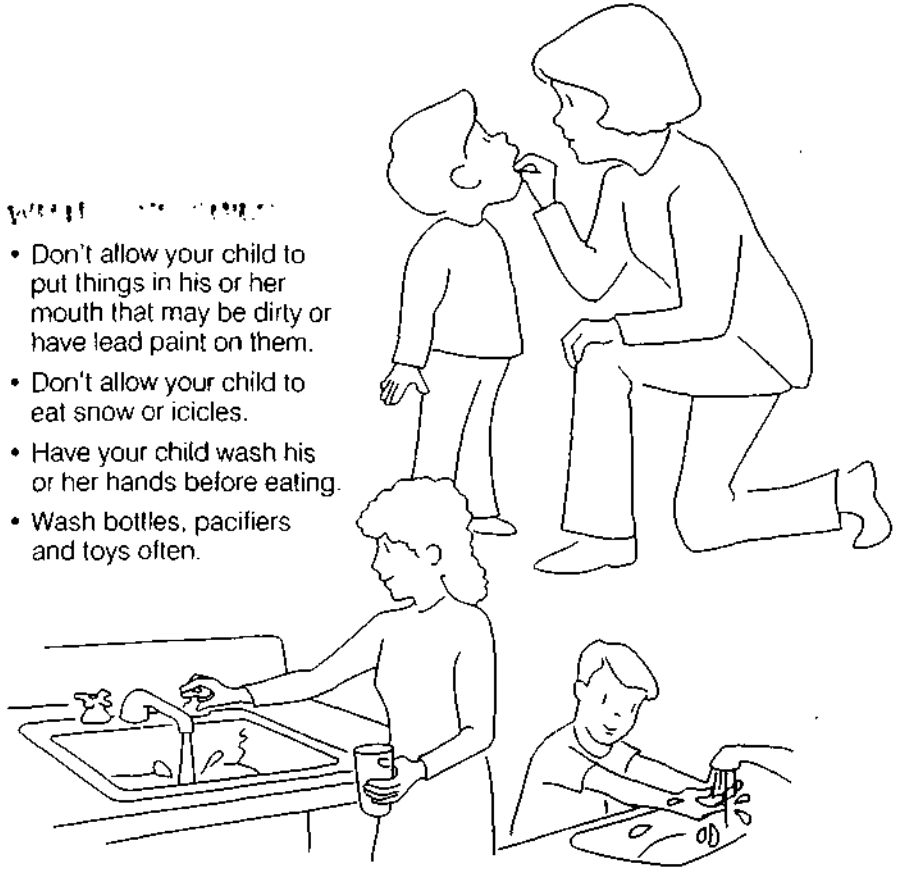
SOIL

The areas where your child plays can be contaminated by:

- chips and dust from exterior lead paint
- past use of lead-based insecticides
- lead pollution that has settled in the soil.

WHAT YOU CAN DO

- Don't allow your child to put things in his or her mouth that may be dirty or have lead paint on them.
- Don't allow your child to eat snow or icicles.
- Have your child wash his or her hands before eating.
- Wash bottles, pacifiers and toys often.



IF YOU WORK WITH LEAD,

don't bring it home with you:

- Shower and change before coming home.
- Wash your clothes separately from your family's clothes. (Follow all occupational safety guidelines for cleaning and storing work clothes and equipment.)

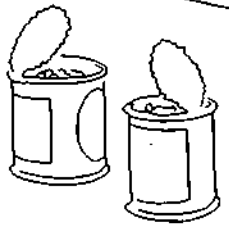
You can have your paint, water and soil tested if you suspect lead. See page 14 for details.

Protect your child

Here are some steps you can take:

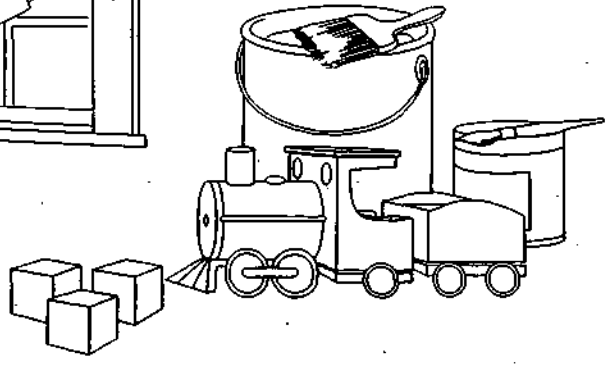
In your kitchen

- Feed your child a well-balanced diet that's high in iron, calcium and vitamin C -- it helps protect the body against lead.
- Don't store food in open cans.
- Don't use pottery for cooking or serving if you're unsure about its glaze.
- Have your water tested. If you suspect lead, draw drinking and cooking water only from the cold tap after letting it run for a few minutes.



In your home

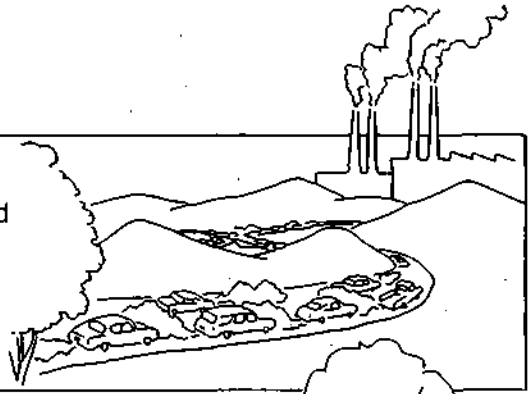
- Be alert for chipping and flaking paint.
- Use only safe interior paints on toys, walls, furniture, etc.
- Replace any plastic miniblinds made outside the United States with a type that is lead-free.



Lead pollution

The air may be contaminated by lead from:

- past use of leaded gas
- lead-processing plants.



Food

What your child eats can be contaminated if it is:

- grown near sources of lead pollution
- stored or baked in poorly glazed pottery (especially if the food is acidic)
- prepared by someone with lead dust on his or her hands
- packaged in cans with lead seams (no longer used in cans made in the U.S.)
- stored in leaded crystal for prolonged periods.

Other sources

Your child can also come into contact with lead through:

- dust from renovation, even a few houses away
- antique pewter
- drapery and window weights
- battery casings
- some homemade or non-mainstream medicines and cosmetics
- dust from some imported plastic miniblinds
- some porcelain and pottery (especially imported)
- dust or fumes from hobbies that use lead, such as staining glass or target practice
- fishing weights.

LEAD DETECTION

The level of lead in your child's blood can be measured. And early detection means early intervention — and less damage.

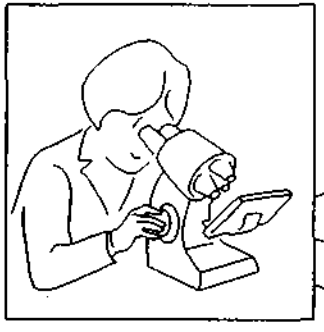
[illegible]

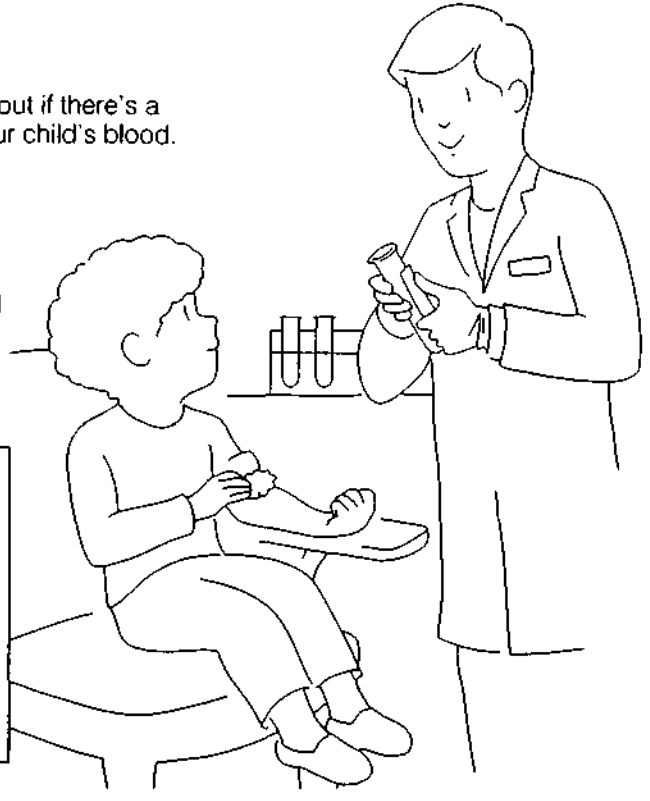
is a blood test. It can find out if there's a harmful level of lead in your child's blood.

[illegible]

is usually done if a child's screening shows that lead may be a problem.

X-rays and other tests may be necessary, too.





[illegible]

will be asked to find out about:

- the child's behavior, health, symptoms
- anything the child has chewed on or swallowed
- possible sources of lead
- the child's diet
- family medical history.

[illegible]

may be necessary in severe cases, and it may need to be repeated several times. Some cases require hospitalization.

[illegible]

may include:

- home inspection for lead sources
- counseling about how to protect children.

ALL CHILDREN NEED TO BE TESTED FOR LEAD

[illegible]

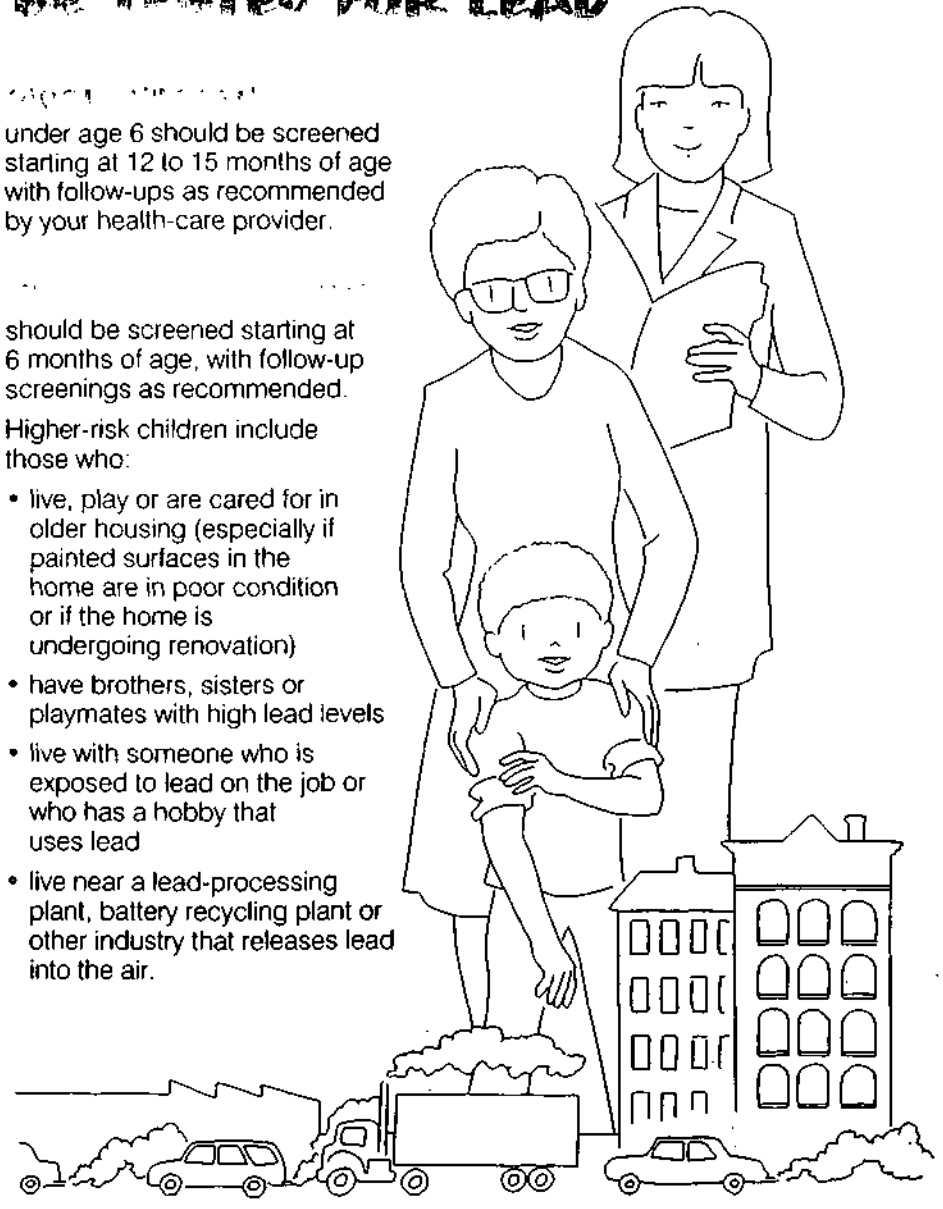
under age 6 should be screened starting at 12 to 15 months of age with follow-ups as recommended by your health-care provider.

[illegible]

should be screened starting at 6 months of age, with follow-up screenings as recommended.

Higher-risk children include those who:

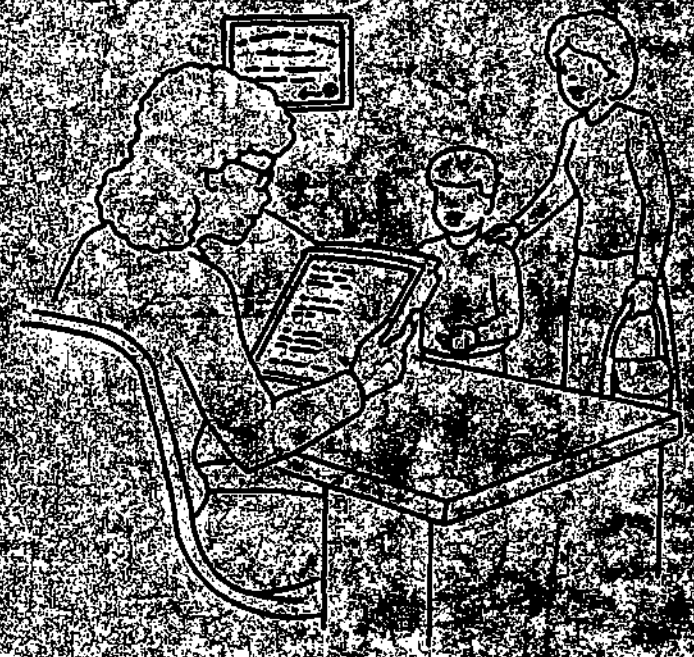
- live, play or are cared for in older housing (especially if painted surfaces in the home are in poor condition or if the home is undergoing renovation)
- have brothers, sisters or playmates with high lead levels
- live with someone who is exposed to lead on the job or who has a hobby that uses lead
- live near a lead-processing plant, battery recycling plant or other industry that releases lead into the air.



Ask a health-care provider for details on screening schedules.

Lo que todo padre debe saber sobre

EL NIVEL DE PLOMO EN LOS NIÑOS



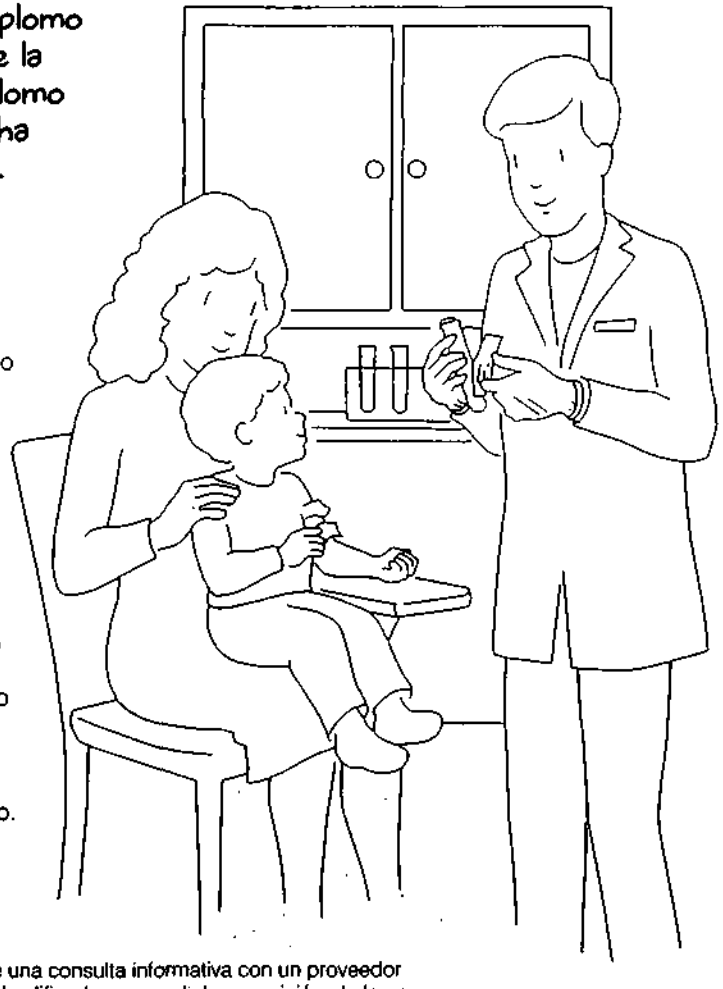
Impreso en papel reciclado (un 20% del contenido del peso es material reciclado previamente utilizado por consumidores).

¿QUE QUIERE DECIR "NIVEL DE PLOMO"?

Los niveles de plomo son medidas de la exposición al plomo ambiental que ha tenido un niño.

PRUEBAS DE SANGRE
se utilizan para averiguar el contenido de plomo en la sangre del niño. Dichas pruebas pueden mostrar niveles de plomo en la sangre que:

- no son motivo de alarma
- son superiores a los normales, pero no requieren tratamiento médico
- posiblemente son perjudiciales y requieren tratamiento médico.



Este folleto no sustituye una consulta informativa con un proveedor de cuidados de la salud calificado acerca de la exposición al plomo, ni ninguna norma federal, estatal o local.

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Lista de precios A

Edición de 1996

Entonces --

PROTEJA A SU HIJO(A) CONTRA LOS RIESGOS DEL PLOMO

✓ [illegible]

y sus efectos sobre los niños.

✓ [illegible]

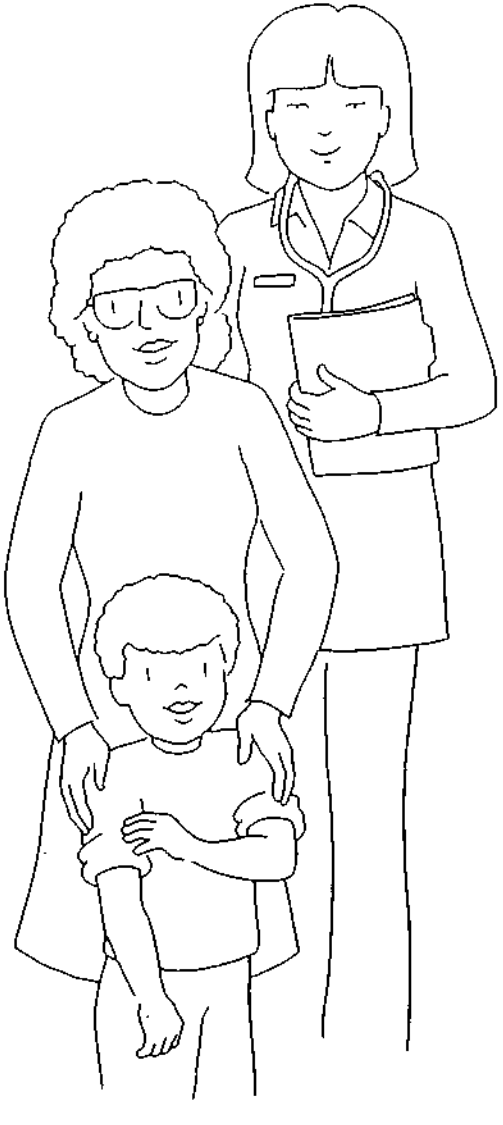
en el momento apropiado.

✓ [illegible]

dados por los oficiales de salud y seguridad respecto a la exposición al plomo.

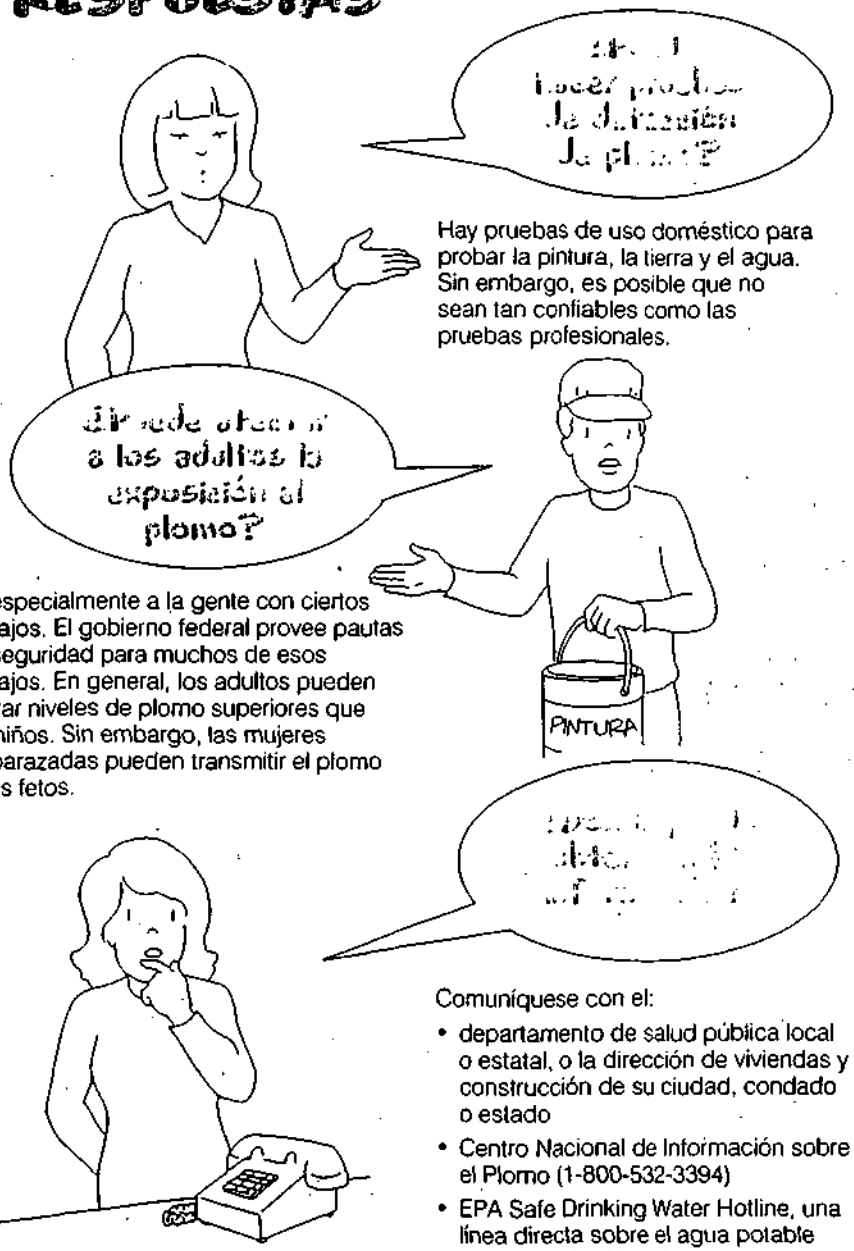
✓ [illegible]

con una dieta sana y medidas que limiten la exposición.



¡Asegúrese de que su hijo(a) crezca protegido(a) contra el plomo!

ALGUNAS PREGUNTAS Y RESPUESTAS



Hay pruebas de uso doméstico para probar la pintura, la tierra y el agua. Sin embargo, es posible que no sean tan confiables como las pruebas profesionales.

Sí, especialmente a la gente con ciertos trabajos. El gobierno federal provee pautas de seguridad para muchos de esos trabajos. En general, los adultos pueden tolerar niveles de plomo superiores que los niños. Sin embargo, las mujeres embarazadas pueden transmitir el plomo a sus fetos.

Comuníquese con el:

- departamento de salud pública local o estatal, o la dirección de viviendas y construcción de su ciudad, condado o estado
- Centro Nacional de Información sobre el Plomo (1-800-532-3394)
- EPA Safe Drinking Water Hotline, una línea directa sobre el agua potable sana (1-800-426-4791).

¡Para que usted pueda proteger la salud de su hijo(a)!

Saber la realidad de los niveles de plomo en los niños puede ayudarle a:

REDUCIR LA EXPOSICIÓN DE SU HIJO(A) al plomo en la mayor manera posible.

TRATAMIENTO APROPIADO para su hijo(a), si es necesario.

Por el bien de su hijo(a) — y por el suyo — tome tiempo para informarse sobre la exposición al plomo.

EXISTEN MUCHAS FUENTES DE PLOMO

Por ejemplo:

LA PINTURA

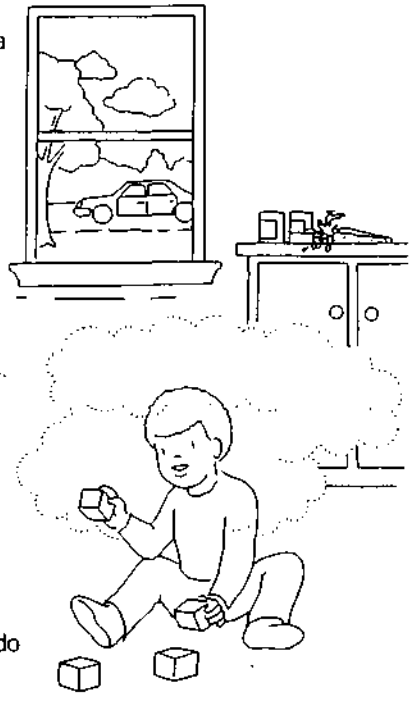
con alto contenido de plomo fue utilizada para millares de casas en Estados Unidos antes de 1978. También fue utilizada en algunos juguetes y muebles.

EL POLVO

puede contener plomo proveniente de la pintura de la casa o de proyectos de remodelación cercanos.

LA TIERRA

puede tener plomo proveniente de fragmentos y polvo de pintura del exterior, el uso anterior de insecticidas a base de plomo y contaminación de las autopistas (debido al uso anterior de la gasolina emplomada).



LOS

pueden estar contaminados. Esto puede ocurrir si los alimentos son:

- cultivados en tierra que contiene plomo
- guardados en vasijas de cerámica mal vidriadas, en latas abiertas con uniones de plomo o en cristal de plomo
- preparados por una persona que tiene polvo de plomo en las manos.

puede acumular plomo a medida que corre por tubería compuesta de tubos, accesorios o soldaduras de plomo.

OTRAS FUENTES INCLUYEN

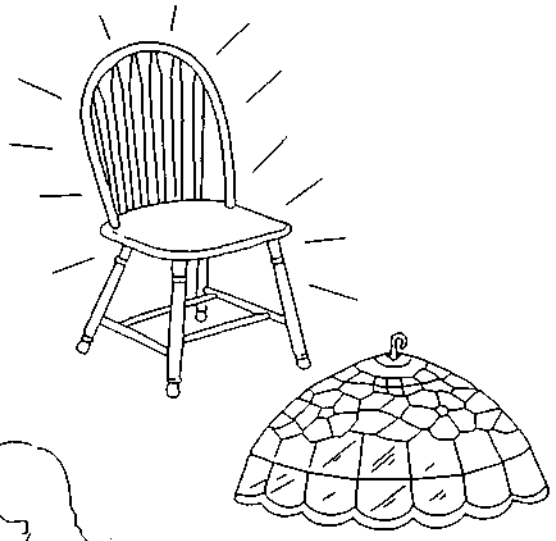
- algunos cosméticos y medicamentos populares
- ciertos pasatiempos, tal como hacer el vidrio ahumado emplomado
- algunas porcelanas y cerámicas
- algunas persianas de plástico fabricadas fuera de los EE.UU.
- objetos de plomo, como las balas de plomo, los juguetes antiguos y los plomos para la pesca.

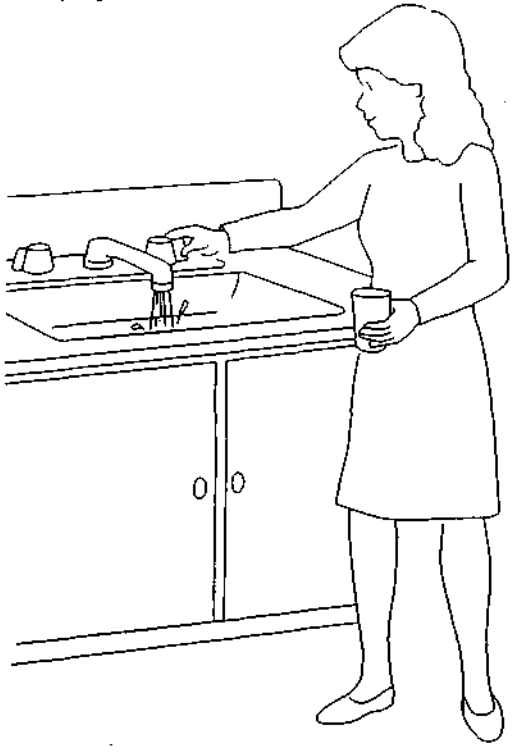
Los niños suelen exponerse cuando se meten en la boca pintura, tierra, polvo u otros materiales que contienen plomo.

MANTENGA LOS PASATIEMPOS SIN PELIGROS

Si usted restaura muebles, trabaja con vidrio ahumado o practica algún otro pasatiempo relacionado con el plomo:

- Lave su ropa aparte de la de su familia.
- Siga todas las pautas de seguridad de los productos que contienen plomo.
- No permita que los niños jueguen en el área





HAGA EXAMINAR EL AGUA DE SU CASA

Comuníquese con el departamento de salud local o estatal, o un laboratorio local. Si sospecha el riesgo de plomo, le sería útil:

- Dejar correr el agua fría durante algunos minutos antes de utilizarla para cocinar o beber.
- Utilizar únicamente agua fría para cocinar o beber.
- Comprar un filtro aprobado para eliminar el plomo.

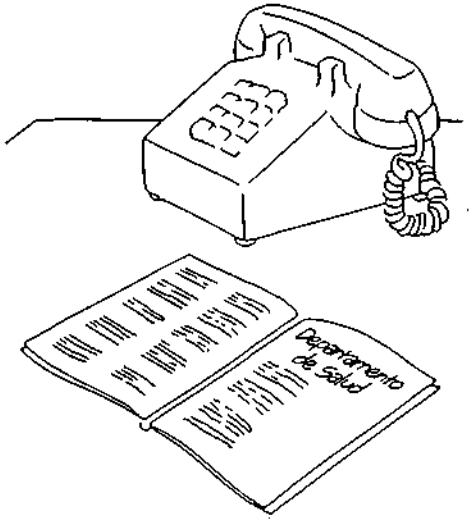
CUIDADO CON LAS PERSIANAS DE PLÁSTICO

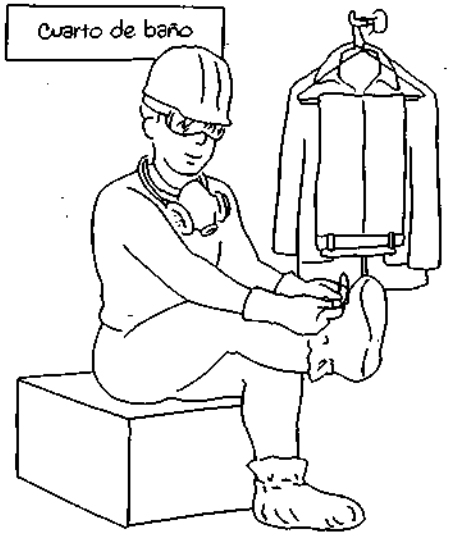
Algunas persianas de plástico importadas contienen plomo. Reemplace todo tipo de persianas de plástico fabricadas fuera de los EE.UU. por una marca que no contenga plomo.

AYUDE A LIMITAR LA EXPOSICION AL PLOMO DE SU HIJO(A)

OCUPESE DE LOS RIESGOS DE PINTURA DE PLOMO

Llame al departamento de salud local, la dirección de viviendas o construcción, o agencia estatal para la protección ambiental. Pregunte sobre las pruebas de detección de pintura de plomo. Si tiene un problema, pida consejos para reducir los riesgos de plomo.





NO TRAIGA PLOMO DEL TRABAJO A CASA

Si está expuesto al plomo en el trabajo:

- Báñese y cámbiese la ropa antes de llegar a casa.
- Siga todas las pautas de la seguridad ocupacional sobre el lavar y almacenar la ropa de trabajo. (La ropa de trabajo nunca se debe lavar con la de su familia.)

MANTENGA LIMPIA SU CASA

Si su casa tiene pintura de plomo, trapee el piso y limpie los alféizares con regularidad. Utilice una solución de agua y detergente para lavaplatos con alto contenido de fosfato.

EL PLOMO PUEDE CAUSAR MUCHOS PROBLEMAS

LOS NIVELES DE EXPOSICION BAJOS

pueden causar daños al cerebro y el sistema nervioso del niño. Eso puede causar:

- problemas auditivos
- problemas de conducta
- problemas de aprendizaje.

LOS NIVELES DE EXPOSICION MUY ALTOS

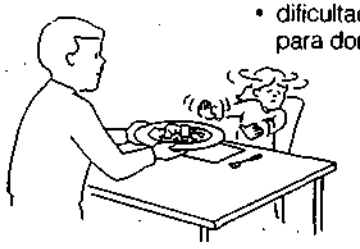
pueden causar:

- coma
- convulsiones
- muerte.

LOS SINTOMAS DE NIVELES MUY ALTOS

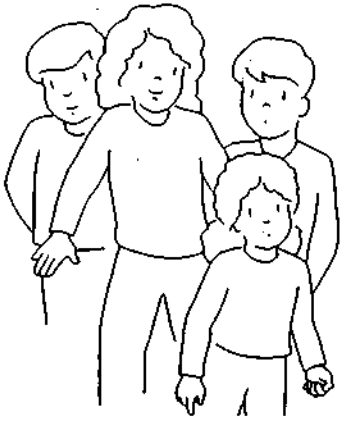
son confundidos muchas veces con otras enfermedades. Las señales comunes incluyen:

- falta de apetito
- dolores de estómago
- vómitos
- estreñimiento
- malhumor
- pérdida de energías
- dolores de cabeza
- dificultad para dormir.



MUCHOS NIÑOS NO MUESTRAN SINTOMAS,

aunque los exámenes preliminares indiquen un problema de plomo.



Por fortuna, la atención a tiempo puede limitar los efectos de la exposición al plomo.

CUANDO SE DEBEN HACER EXAMENES PRELIMINARES EN LOS NIÑOS

Conforme a las pautas corrientes*:

[illegible] NIÑOS

deben ser examinados a los 12 meses de edad. (Medicaid paga los exámenes preliminares a partir de los 6 meses.)

[illegible]

deberán ser examinados a partir de los 6 meses. Los niños de alto riesgo son los que:

- viven o pasan mucho tiempo en viviendas construidas antes de 1960 -- especialmente si la pintura de éstas se levanta o fragmenta, o si está en remodelación
- tienen un hermano o hermana cuya sangre tiene alto contenido de plomo
- viven con un adulto cuyo trabajo o pasatiempo involucra el uso del plomo
- viven cerca de una industria que tiende a emitir plomo, como un horno de fundición de plomo o una planta de recuperación de baterías.

SI SU HIJO(A) [illegible] SE HA [illegible] EXAMEN [illegible],

comuníquese de inmediato con su proveedor de cuidados de la salud.

PIDA A SU PROVEEDOR DE CUIDADOS DE LA SALUD

los detalles sobre el horario de exámenes preliminares. Haga los exámenes complementarios según las recomendaciones.

*Si es necesario, es posible que le sugieran exámenes adicionales. Algunos estados tienen requerimientos de exámenes preliminares diferentes.

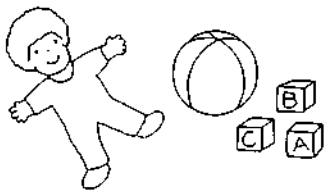
AYUDE A MANTENER A SU HIJO(A) PROTEGIDO(A) CONTRA EL PLOMO

[illegible]

Los niños deben lavarse la cara y las manos antes de comer. (Los adultos también deben lavarse antes de preparar los alimentos y comerlos.)

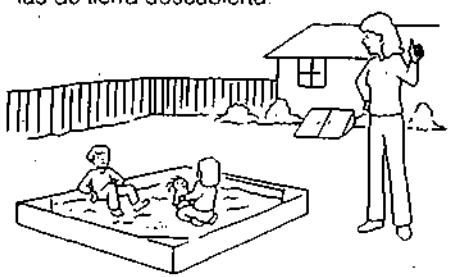
[illegible]

El plomo del polvo se puede acumular en cualquiera de los juguetes de su hijo(a).



[illegible]

Las áreas verdes o con arena libre de plomo normalmente son mejores que las de tierra descubierta.

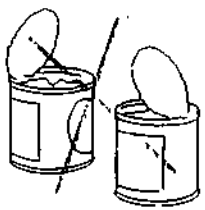


ACONSEJE NO COMER LAS [illegible] QUE CAEN AL SUELO

Cualquier cosa que cae al piso o la tierra puede recoger polvo de plomo -- y no debe entrar a la boca de un niño. No permita tampoco que los niños se metan piedras ni tierra en la boca.

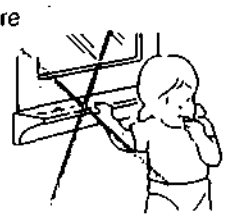
GUARDE LOS ALIMENTOS [illegible]

Evite guardar alimentos en latas abiertas, recipientes de cerámica o cristal de plomo.



[illegible] CONTRA [illegible] DE PINTURA

No permita que los niños coman fragmentos de pintura sueltos o que muerdan los alféizares u otras superficies pintadas. Comuníquese con el departamento de salud. para informarse sobre la eliminación doméstica de riesgos de pintura de plomo.



UNA DIETA SANA PUEDE AYUDAR A PREVENIR EL ENVENENAMIENTO POR PLOMO

Todos los niños pueden beneficiarse de los alimentos que tienen:

ALTO CONTENIDO DE HIERRO Y PROTEÍNA

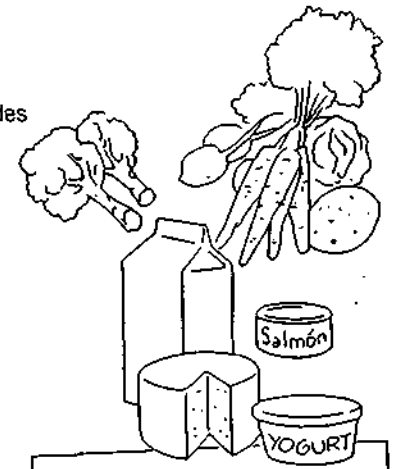
Buenas fuentes incluyen:

- carnes, pollo y pescado sin grasa
- vegetales de hoja verde como la espinaca, el bróculi y la remolacha
- guisantes, lentejas y frijoles secos
- frutas secas como pasas, ciruelas y albaricoques
- panes y cereales enriquecidos con hierro.

ALTO CONTENIDO DE VITAMINA C

Buenas fuentes incluyen:

- cítricos y jugos
- tomates, repollo crudo, bróculi y vegetales verdes
- papas y batatas (camotes).



ALTO CONTENIDO DE CALCIO

Buenas fuentes incluyen:

- leche, queso y yogurt
- vegetales de hoja verde, como los nabos, las legumbres de tallo y la col rizada
- salmón y sardinas.

BAJO CONTENIDO DE GRASAS Y ACEITES

Evite:

- alimentos fritos, como papas fritas, pollo frito y papitas fritas en paquete
- reposterías, pasteles y demás alimentos horneados
- mantequilla, aceite y manteca
- hamburguesas, salchichas, salame y tocino.

ACOSTUMBRE A SU HIJO(A) COMER CON REGULARIDAD
-- por lo menos tres veces al día (el estómago lleno tiende menos a absorber el plomo).

LOS EXÁMENES PRELIMINARES MIDEN LOS NIVELES DE PLOMO EN LA SANGRE

Se puede extraer sangre pinchando el dedo o extrayendo la sangre de la vena del brazo de un niño. Otra prueba puede confirmar los resultados si se sospecha algún problema.

LOS NIVELES DE PLOMO EN LA SANGRE SE MIDEN en "microgramos" de plomo por "decilitro" de sangre, o "mcg/dL."

NIVEL DE RIESGO	NIVEL DE PLOMO EN LA SANGRE	ACCIÓN RECOMENDADA
Muy bajo	0-9 mcg/dL	Ninguna medida adicional.
Bajo	10-14 mcg/dL	Reexaminar cada 3-4 meses. Tome medidas para mantener a su hijo(a) protegido(a) contra el plomo (consulte la página 11).
Moderado	15-19 mcg/dL	Reexaminar cada 3-4 meses. Pida que los proveedores de cuidados de la salud le proporcionen orientación sobre la dieta y prevención contra el plomo. Identifique y elimine los riesgos obvios de plomo.
Alto	20-44 mcg/dL	Obtenga una evaluación médica completa. Busque y elimine en el ambiente de su hijo(a) riesgos de plomo (en casa, la escuela y las áreas de juego).
	45-69 mcg/dL	Obtenga tratamientos médicos y haga inspeccionar su entorno dentro de 48 horas.
Urgente	70 mcg/dL o más	Emergencia médica. Obtenga tratamientos médicos de inmediato y haga inspeccionar su entorno.

TRATAMIENTO PARA ALTOS NIVELES DE PLOMO

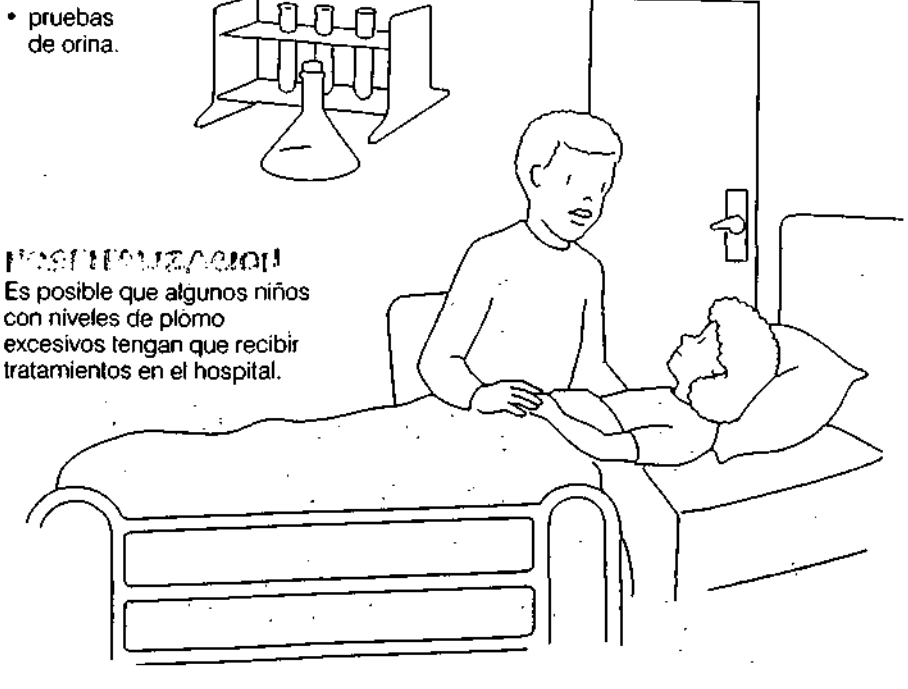
depende de la medida de plomo en la sangre y muchos otros factores.

Su proveedor de cuidados de la salud podrá sugerirle:

PRUEBAS APROPIADAS

Para ayudarle a detectar el nivel exacto de plomo y los efectos posiblemente causados a la salud, es posible que el proveedor de cuidados de la salud le recomiende:

- pruebas de sangre
- radiografías
- pruebas de orina.

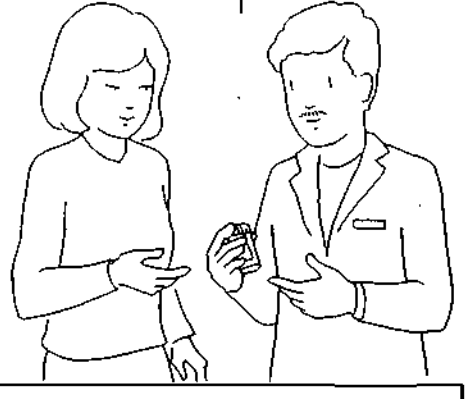


HOSPITALIZACIÓN

Es posible que algunos niños con niveles de plomo excesivos tengan que recibir tratamientos en el hospital.

CUIDADO COMPLEMENTARIO

Es posible que se tengan que realizar más pruebas en los niños a fin de cerciorarse de que el nivel de plomo ha sido reducido. Es de suma importancia hacerle todas las pruebas complementarias recomendadas, aunque el niño parezca estar bien.



TRATAMIENTO POR QUELACIÓN

Algunos niños pueden recibir una droga que se combina con el plomo y lo elimina del cuerpo por medio de la orina. Si hay mucho plomo, es posible que se necesite repetir el tratamiento.

PARA AYUDAR A QUE EL TRATAMIENTO TENGA EXITO, ASEGÚRESE DE ELIMINAR LAS FUENTES DE PLOMO

Las fuentes de plomo se pueden encontrar en la casa, la escuela, el patio o los lugares que el niño visita con frecuencia. Para ayuda en identificar las fuentes de plomo, comuníquese con el departamento de salud local, o la dirección de viviendas y construcción.

LA ELIMINACIÓN DE LA PINTURA DE PLOMO SE DEBE REALIZAR CUIDADOSAMENTE

¡La eliminación inapropiada de pintura de plomo puede aumentar el riesgo! Comuníquese con el departamento de salud estatal o local antes de tomar medidas para eliminar riesgos de plomo. Siga todas las leyes y pautas que apliquen en su área.

Muchas veces, los cambios en la dieta son parte de un plan de tratamiento.

Infórmese más...

Impreso en papel reciclado

Lo que todo el mundo debería saber sobre el

ENVENENAMIENTO POR PLOMO

¿Qué es el ENVENENAMIENTO POR PLOMO?

Es una enfermedad que se origina al tragar o inhalar plomo.

AUN PEQUEÑAS CANTIDADES de pintura de plomo descascarada o de polvo cargado de plomo pueden ser peligrosas para el organismo.

LOS NIÑOS PEQUEÑOS CORREN LOS MAYORES RIESGOS:

- Sus cuerpos absorben el plomo más fácilmente que los cuerpos de los adultos
- Se llevan todo a la boca. Y, por más que usted lo intente, es imposible vigilar constantemente a un niño pequeñito
- Generalmente no hay síntomas del envenenamiento por plomo.

Este folleto no sustituye una conversación que pueda tener usted a fondo entre un padre de familia y el suministrador de cuidados médicos de una niño(a) del padre de familia sobre los exámenes, la detección o tratamientos para el envenenamiento por plomo

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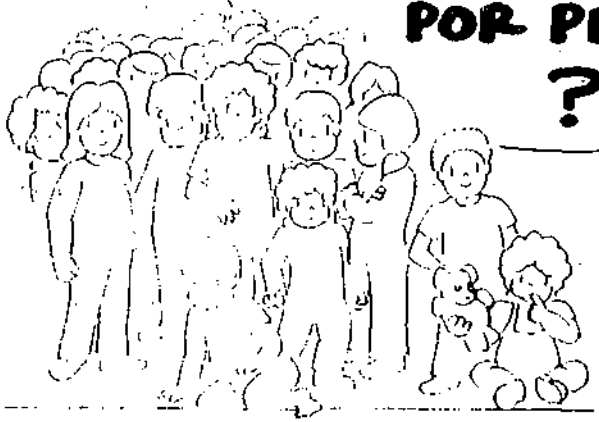
Edición de 1994

¿POR QUE es importante INFORMARSE SOBRE EL ENVENENAMIENTO POR PLOMO?



Porque es muy común -- ¡hay millones de niños americanos afectados!

EN CASI TODAS PARTES DE LOS EE.UU. HAY NIÑOS AFECTADOS.

- Los niños de las ciudades que viven en viviendas viejas y mal mantenidas, o en viviendas que se están renovando, se enfrentan con los riesgos más grandes.
- Los niños de los suburbios y del campo también corren peligro, si viven en casas viejas donde la pintura se pela o descascara o en casas que se están renovando
- Cualquier niño puede estar en peligro, porque el plomo proviene de muchas fuentes.

El riesgo aumenta considerablemente si los niños tienen una nutrición deficiente.

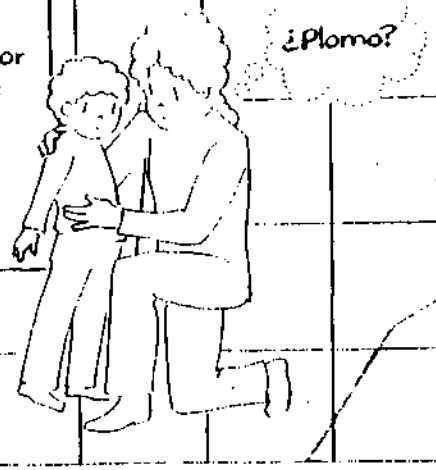
PERO, ¡EL ENVENENAMIENTO POR PLOMO ES EVITABLE!

Siga informándose . . .

COMO AFECTA EL PLOMO A LOS NIÑOS

EN NIVELES ELEVADOS,
el envenenamiento por plomo puede causar:

- coma
- convulsiones
- muerte.



EN NIVELES MAS BAJOS,
los efectos del envenenamiento por plomo posiblemente no sean obvios.

Pero encuestas indican que hasta el envenenamiento por plomo de bajo nivel puede:

- dañar el sistema nervioso, incluso el cerebro
- atrasar el desarrollo físico
- dañar el oído
- bajar el índice intelectual
- hacer que el aprendizaje sea difícil.

El envenenamiento por plomo de bajo nivel también puede causar problemas de conducta. Por ejemplo, puede que un niño con envenenamiento por plomo muestre:

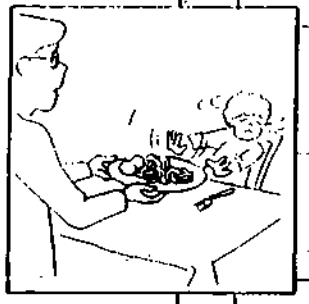
- excitabilidad fácil
- incapacidad de prestar atención
- rápida perturbación

¡Hasta cantidades pequeñas pueden causarles daño permanente a los niños!

INDICIOS DEL ENVENENAMIENTO POR PLOMO

Generalmente no hay indicios, o se los puede tomar equivocadamente por síntomas de gripe o de otras enfermedades. Cuando los hay, los síntomas podrían ser:

- dolor y calambres en el estómago
- irritabilidad
- fatiga
- vómitos frecuentes
- constipación
- dolor de cabeza
- desórdenes del dormir
- poco apetito.



A MEDIDA QUE SE ACUMULA EL PLOMO,
pueden manifestarse torpeza, debilidad y pérdida de destrezas recientemente adquiridas.

Estos síntomas podrían indicar también otras condiciones de salud, pero consulte a su médico si sospecha que se trata de envenenamiento por plomo.

FUENTES DE PLOMO EN EL MEDIO AMBIENTE

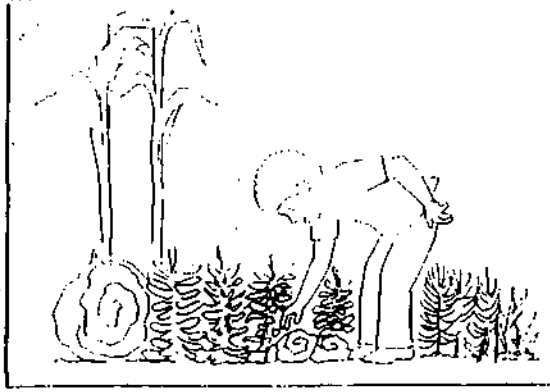
PINTURA

Pintura de plomo es la fuente principal de envenenamiento por plomo en los EE.UU. El riesgo más grande es de trocitos de pintura de plomo. Sin embargo, hasta pintura de plomo intacta puede producir polvo de plomo, que no sea muy obvio a la vista. Millones de hogares tienen pintura de plomo en:

- VENTANAS y alféizares
- PUERTAS, marcos y alféizares
- PAREDES y pisos
- ESCALERAS, vallas y barandas
- CARPINTERIA, molduras y zócalos
- PORTICOS y cercas

LOS JUGUETES Y LOS MUEBLES también podrían tener pintura de plomo

Desde 1977, las pinturas para casas contienen mucho menos del 1% de plomo



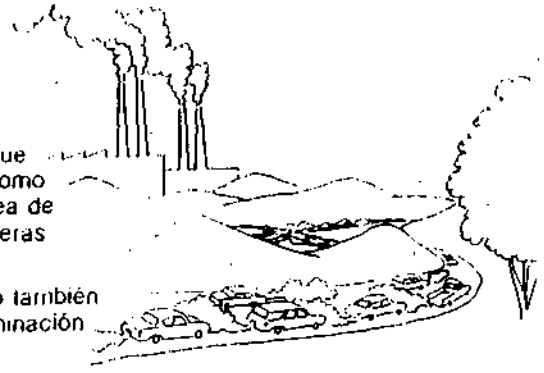
EL SUELO PUEDE ESTAR CONTAMINADO POR:

- trocitos y polvo de pintura de plomo
- insecticidas con base de plomo
- contaminación ambiental proveniente de una carretera

EL AGUA PUEDE SER CONTAMINADA POR:

- cañerías hechas de plomo
- accesorios de cañería hechos de bronce o latón
- soldadura de plomo usada en caños y accesorios

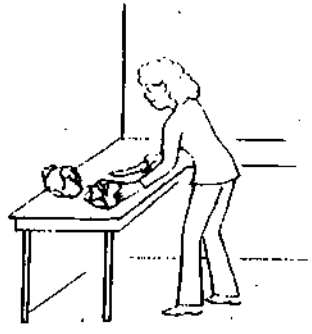
ESCAPES DE AUTOMOVILES Y CONTAMINACION INDUSTRIAL



El escape de vehículos que consumen gasolina de plomo pueden contaminar el área de los alrededores de carreteras de tráfico intenso

Las fundiciones de plomo también pueden crear una contaminación ambiental peligrosa

LOS ALIMENTOS PUEDEN ESTAR CONTAMINADOS SI:



- se los cultiva cerca de caminos de tráfico intenso o de otras fuentes de contaminación de plomo
- se los almacena o cocina en cacharros mal vidriados (especialmente si los alimentos son acídicos)
- son preparados por alguien que tiene polvo de plomo en las manos
- están enlatados en latas con junturas de plomo
- se los almacena en cristal emplomado por largos ratos.

OTRAS FUENTES INCLUYEN:

- polvo que viene de trabajos de renovación, hasta de varias casas más lejos
- peltre antiguo
- cortinados y pesos de ventanas
- cajas de baterías
- ciertas medicinas o cosméticos caseros
- algunas porcelanas y alfarerías (especialmente las importadas)
- polvos o emanaciones de pasatiempos favoritos que implican el uso de plomo, tales como trabajos de vitrales y prácticas de tiro.

EXAMEN Y DETECCION

Pida que un suministrador de cuidados médicos le dé información sobre las edades en que se recomiendan exámenes. Por lo general, todos los niños menores de 6 años de edad deben ser examinados.

LA MAYORIA DE LOS NIÑOS

deben ser examinados entre los 12 y 15 meses de edad, y después deben ser examinados periódicamente según lo recomendado.

LOS NIÑOS QUE CORREN GRANDES RIESGOS

deben ser examinados a los 6 meses de edad, y deben ser examinados periódicamente después según lo recomendado.

Los niños que corren grandes riesgos son los que

- viven o juegan en casas viejas (especialmente si la casa está en malas condiciones o se la está renovando)
- tienen hermanos, hermanas o compañeros de juego con altos niveles de plomo
- viven con alguien que está expuesto al plomo en el trabajo o que tiene un pasatiempo que usa plomo (vitrales, alfarería, etc.)
- viven cerca de una fundición de plomo, planta de reciclaje de baterías u otra industria que permite que el plomo escape al aire

LOS EXAMENES PUEDEN CONDUCIR A UNA DETECCION TEMPRANA -- Y A MENOS DAÑOS.

Cuanto más bajo sea el nivel del plomo, tanto más fácil será su tratamiento.

LOS LUGARES PARA EXAMINARSE

podrían ser

- clínicas médicas
- médicos de familia o pediatras
- departamentos de salud pública

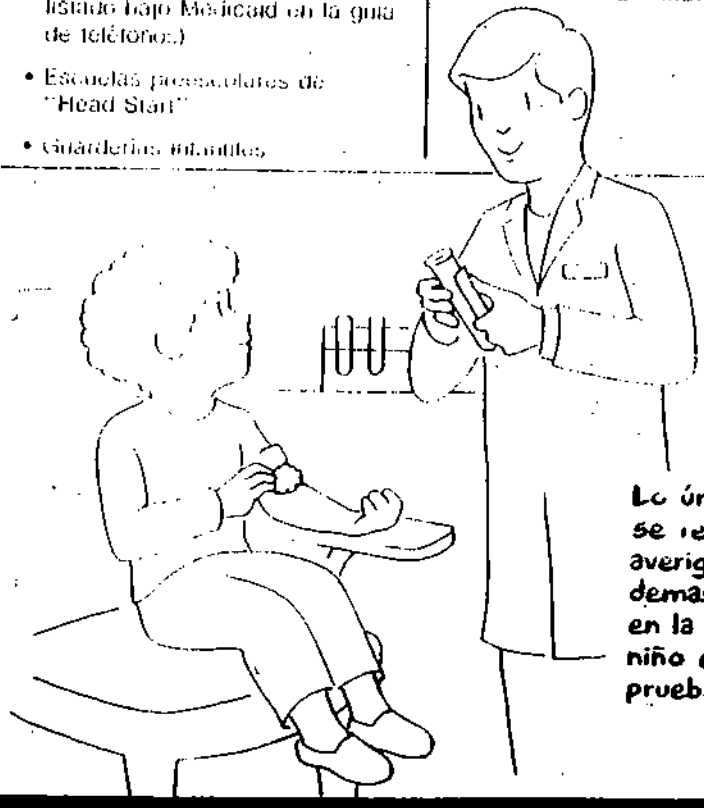
En las ciudades más grandes, los exámenes pueden encontrarse hasta en

- Clínicas "WIC" ("Women, Infants and Children" -- programa para mujeres, infantes y niños -- listado bajo Medicaid en la guía de teléfonos.)
- Escuelas preescolares de "Head Start"
- Guarderías infantiles

EN ALGUNAS CIUDADES, LOS ASISTENTES SOCIALES

suelen visitar los barrios más antiguos para

- ALERTAR A LOS PADRES sobre los peligros del plomo
- BUSCAR SIGNOS de pintura descascarada
- EDUCAR A LOS PADRES sobre los síntomas y la necesidad de exámenes
- REALIZAR EXAMENES



Lo único que se requiere para averiguar si hay demasiado plomo en la sangre del niño es una prueba de sangre.

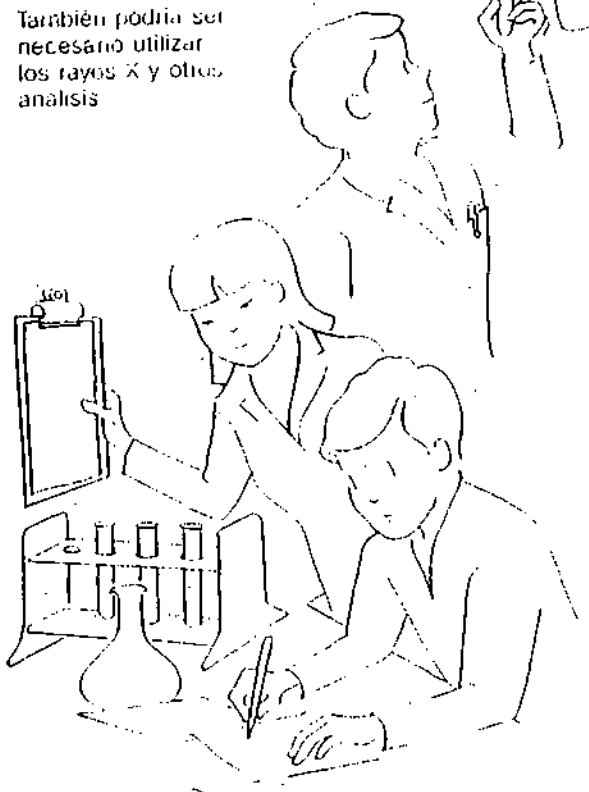
PRUEBAS ADICIONALES

podrían requerirse en ciertos casos.

UN SEGUNDO ANALISIS DE SANGRE

será necesario si el examen de un niño indica que la presencia de plomo podría ser un problema

También podría ser necesario utilizar los rayos X y otros análisis



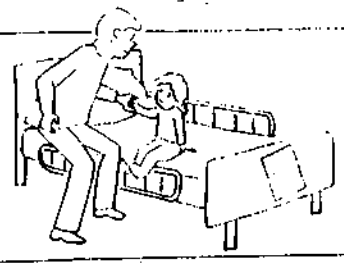
SE HARAN PREGUNTAS COMPLEMENTARIAS

para obtener una descripción detallada de

- la conducta, salud, y síntomas del niño
- todo lo que el niño haya masticado o tragado
- posibles fuentes de plomo
- la dieta del niño
- el historial médico de la familia

OTRAS MEDIDAS PODRIAN INCLUIR

- inspección del hogar para ubicar las fuentes del plomo
- asesoramiento sobre medidas para proteger a los niños



TRATAMIENTO

En ciertos casos es posible que se necesite un tratamiento. A veces requiere hospitalización y se lo deberá repetir varias veces

LA PREVENCION ES LA RESPONSABILIDAD DE TODO EL MUNDO

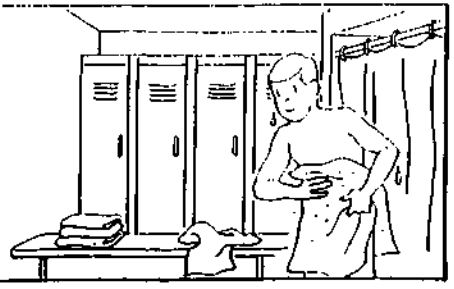
Estas son algunas de las medidas que usted puede tomar:

- ESTAR ALERTA para descubrir pintura que se pela o descascara.
- ASEGURARSE de que el niño se ponga solamente cosas seguras y limpias en la boca.
- ALIMENTARLO con una dieta bien balanceada de contenido de hierro y calcio.
- NO PERMITIR que el niño coma nieve o carámbanos
- USAR pinturas interiores seguras para juguetes, paredes, muebles, etc
- USAR objetos de cerámica sólo de adorno si no está seguro del vidriado.
- ALMACENAR los alimentos en recipientes de vidrio, plástico o acero inoxidable -- no en latas abiertas.
- HACER analizar su agua. Saque agua para cocinar o beber solamente del grifo de agua fría, después de dejarla correr unos minutos (si sospecha presencia de plomo).
- HACER que los niños se laven las manos antes de comer

NOTA: Ya sea que usted viva en una casa o apartamento, podrá preguntar a los oficiales de salud pública o vivienda/edificios de su localidad por una evaluación de los peligros del plomo en su residencia. Si usted alquila, averigue cuáles son sus derechos y lo que puede hacer en caso de que se compruebe la existencia de un peligro

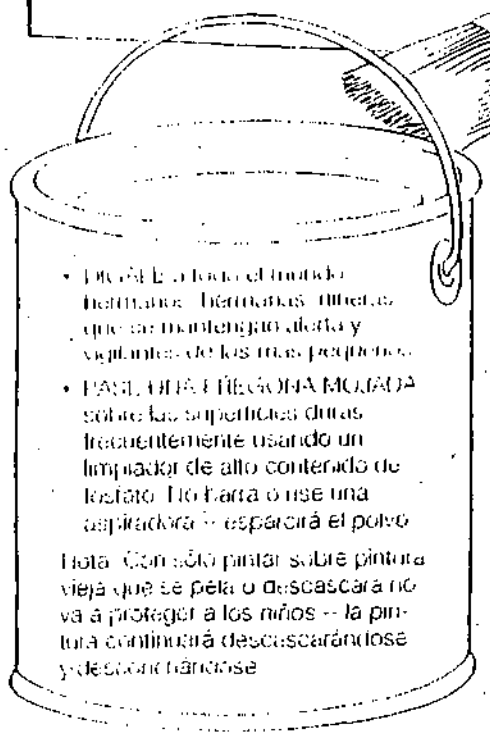
SI USTED TRABAJA CON PLOMO, ¡NO LO LLEVE A SU CASA!

- DUCHESE Y CAMBIESE antes de volver a su casa.
- LAVE SUS ROPAS POR SEPARADO de las de los otros miembros de la familia



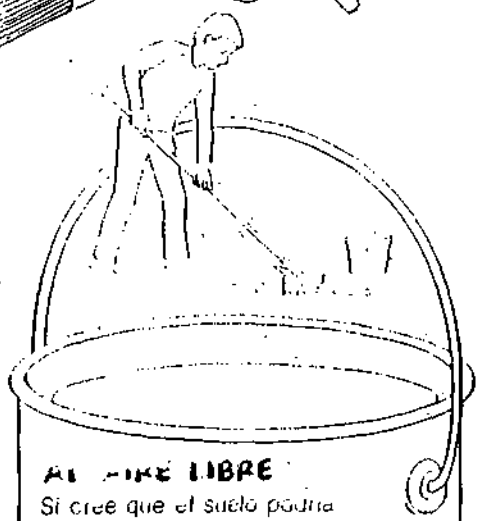
SI SE ENCUENTRA PINTURA DE PLOMO EN SU HOGAR,

siga estos pasos para proteger a su familia hasta que pueda eliminarse el peligro.



- DIGALE a todo el mundo hermanos, hermanas, niñeras que se mantengan alerta y vigilantes de los más pequeños.
- PASE UNA FREGONA MOJADA sobre las superficies duras frecuentemente usando un limpiador de alto contenido de fosfato. No barra o use una aspiradora -- esparcirá el polvo.

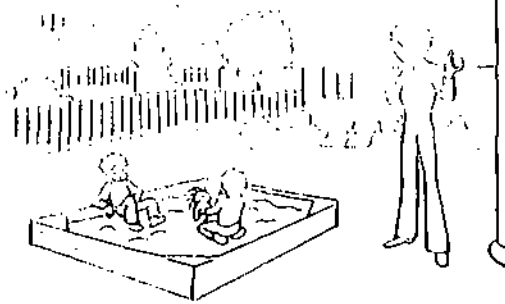
Nota: Con sólo pintar sobre pintura vieja que se pela o descascara no va a proteger a los niños -- la pintura continuará descascarándose y desconchándose.



AL AIRE LIBRE

Si cree que el suelo podría estar contaminado

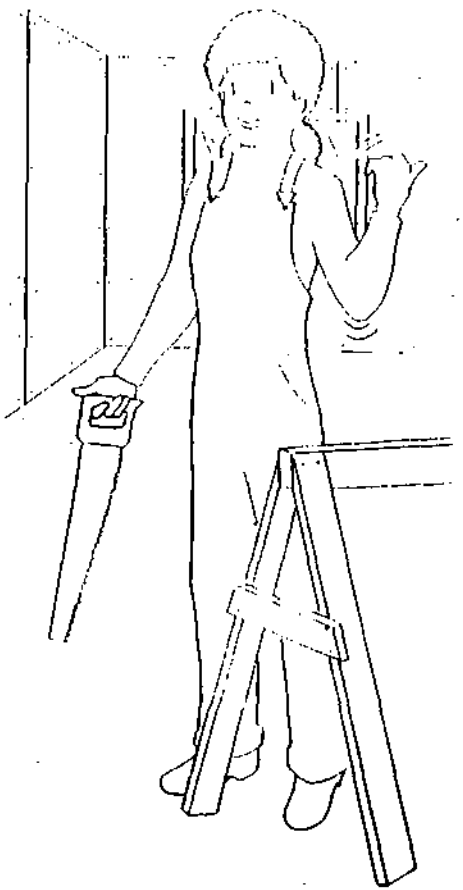
- HAGA ARREGLOS para un análisis de suelo.
- QUITE el suelo o cúbralo con hierba o arbustos.
- CONSTRUYA un cajón de arena (usando arena segura) para que los niños puedan jugar con seguridad.
- PLANTE su jardín en un área sin plomo alejada de los edificios pintados y de las calles transitadas.



¡SAQUE EL PLOMO!

AVISO:
Quitar la pintura de plomo es extremadamente peligroso -- ¡especialmente a los niños y las mujeres embarazadas!

Por lo general, lo más seguro es contratar a un profesional para que cubra o reemplace la pintura de plomo.



ANTES DE QUITAR O CUBRIR LA PINTURA DE PLOMO,

llame al departamento de salud pública estatal o de su localidad, o al inspector de edificios, para información sobre:

- los requisitos y precauciones de salud y seguridad necesarios.
- instrucciones para quitar o cubrir la pintura con paneles o cartón-yeso, o para reemplazar ventanas, carpintería, etc.*
- consejos con respecto a contratar a un profesional.

ALGUNAS PAUTAS DE SEGURIDAD

para cuando se haga renovación o se quite la pintura:

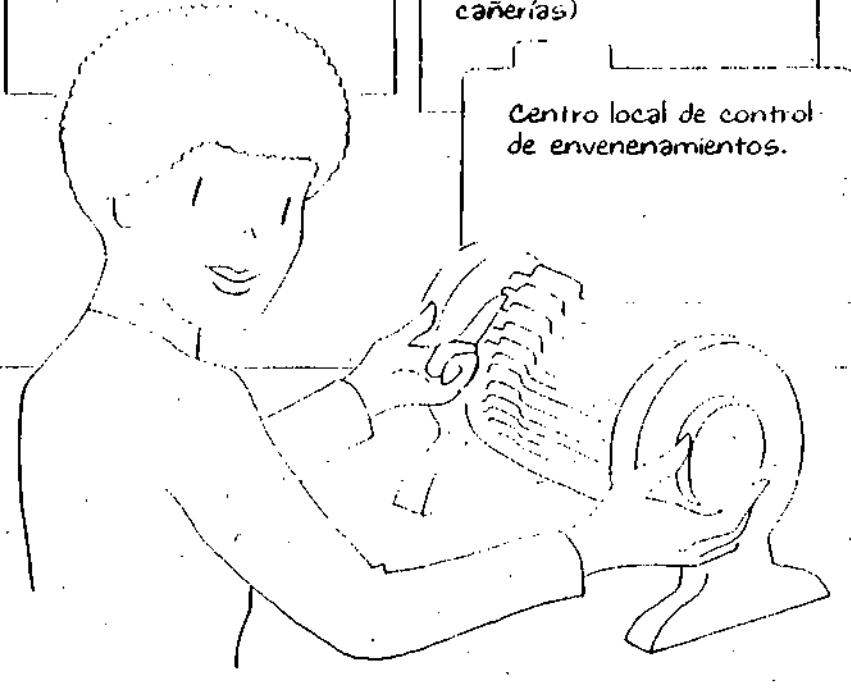
- SIGA toda instrucción de seguridad y salud.
- EVACUE a todos los ocupantes hasta que haya limpiado.
- QUITE los muebles, alfombras, alimentos, platos, etc., hasta después que haya limpiado.

*En algunos estados solamente los contratistas certificados se permiten a cubrir o quitar la pintura de plomo.

PARA OBTENER MAS INFORMACION,

comuníquese con su:

- Departamento de Salud Pública (ciudad, condado o estado)
- Autoridad local de la vivienda
- Médico de familia o clínica médica
- Programa local de prevención de envenenamiento infantil por plomo
- Servicio de extensión cooperativa (sobre protección de alimentos)
- Departamento de Obras Sanitarias (sobre contaminación de las cañerías)
- Centro local de control de envenenamientos.



Entonces --

EL ENVENENAMIENTO POR PLOMO CONSTITUYE UNA AMENAZA SERIA PARA LOS NIÑOS

Pero se lo puede evitar.
Proteja a sus niños con:

Y difunda la idea a los otros padres también.

You Can! Prevent Lead Poisoning!

HERE'S HOW

Child's ID _____

Child's Name _____

Today's Date ____/____/____

LOWER EXPOSURE TO PAINT AND DUST

- ❑ 1. **Check your house for peeling and chipping paint.** Clean it up, then prevent your child from reaching or touching those areas. Cover areas with contact paper or heavy tape or block them off with furniture.
- ❑ 2. **Don't play on porches.** Porches can have high levels of lead paint and lead dust.
- ❑ 3. **Cover older carpets.** They can be full of lead dust. Have child play elsewhere.

DO SPECIAL CLEANING

- ❑ 4. **Wet mop floors** at least twice weekly. Add a detergent to the wash water. Rinse.
- ❑ 5. **Wash window sills** weekly.
- ❑ 6. **Wash window wells** at least monthly. Use paper towels for cleaning window wells. Do not rinse used paper towels. Just throw them away.
- ❑ 7. Put a washable **floor mat outside your front and back doors.** Wash them weekly.

DECREASE EXPOSURE TO DIRT

- ❑ 8. **Don't let your child play in the dirt** next to buildings. The dirt there probably has lead.
- ❑ 9. **Wash hands** after outdoor play.
- ❑ 10. Have everyone **take off their shoes** when they enter your home.

STOP LEAD DUST FROM GETTING TO YOUR CHILD'S MOUTH

- ❑ 11. **Wash child's hands before eating and snacks.** Don't let child carry food around the house.
- ❑ 12. If **food** falls on the floor, throw it away.
- ❑ 13. If **bottles or pacifiers** fall on the floor, **wash** them before use.
- ❑ 14. Keep your child's **fingernails clean and trimmed.**
- ❑ 15. **Wash toys** that your child may put in his or her mouth.

GOOD NUTRITION HELPS KEEP LEAD FROM ENTERING INTO YOUR CHILD'S BODY

- ❑ 16. Drink 2-3 cups of **MILK** daily.
- ❑ 17. Eat foods with **IRON** (like formula or cereals with iron, or meats) every day.
- ❑ 18. **Don't skip meals.** Lead enters the body quicker on an empty stomach.

USE EXTRA CARE WITH HOME REPAIR

- ❑ 19. Keep **child out of the home** during repairs.
- ❑ 20. Repair creates lead dust. Do extra **SPECIAL CLEANING** before child returns.

LOWER LEAD IN WATER

- ❑ 21. Use **cold flushed water** for drinking and cooking.

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¡Usted Puede Prevenir el Envenenamiento con Plomo!

AQUÍ LE DECIMOS COMO

Child's ID _____

Child's Name _____

Today's Date ____/____/____

DISMINUYA LA EXPOSICIÓN A LA PINTURA Y AL POLVO

- ❑ 1. **Revise su casa para ver si hay pintura que se está pelando y desprendiendo.** Límpie bien y despues evite que su hijo/a alcanze o toque esas áreas. Cubra las áreas con papel adhesivo o con cinta fuerte o tápelas con los muebles.
- ❑ 2. **No jueguen en el porche.** El porche puede tener niveles altos de pintura y de polvo que contienen plomo.
- ❑ 3. **Cubra las alfombras viejas.** Estas pueden estar llenas de polvo que contiene plomo. Haga que su niño/a juegue en otra parte.

HAGA UNA LIMPIEZA ESPECIAL

- ❑ 4. **Limpie los pisos con un trapeador mojado** por lo menos dos veces por semana. Añada detergente al agua. Enjuague bien.
- ❑ 5. **Lave las molduras de las ventanas** semanalmente.
- ❑ 6. **Lave la superficie que está entre la ventana de afuera y la de adentro** por lo menos una vez al mes. Use toallas de papel para limpiar las superficies entre las ventanas. No enjuague las toallas de papel que ya usó, echelas a la basura.
- ❑ 7. **Ponga un tapete lavable afuera de la puertas de enfrente y de atras.** Lave los tapetes semanalmente.

DISMINUYA LA EXPOSICIÓN A LA TIERRA

- ❑ 8. **No deje que su niño/a juegue en la tierra** cerca de los edificios. La tierra que está ahí probablemente contiene plomo.
- ❑ 9. **Lavese las manos** despues de jugar afuera.
- ❑ 10. **Haga que todos se quiten los zapatos** al entrar a su casa.

EVITE QUE EL POLVO QUE CONTIENE PLOMO LLEGUE A LA BOCA DE SU NIÑO/A

- ❑ 11. **Lave las manos de su niño/a antes de que coma o meriende.** No deje que su niño/a traiga la comida por toda la casa.
- ❑ 12. Si la **comida** se cae en el piso, echela a la basura.
- ❑ 13. Si las **mamilas o chupones** se caen en el piso, lavelos antes de usarlos.
- ❑ 14. Mantenga las **uñas de las manos** de los niños **limpias y recortadas.**
- ❑ 15. **Lave los juguetes** que su niño/a se pueda meter en la boca.

UNA BUENA NUTRICIÓN AYUDA A EVITAR QUE EL PLOMO ENTRE AL CUERPO DE SU NIÑO/A

- ❑ 16. Tome 2-3 tazas de LECHE diariamente.
- ❑ 17. Coma alimentos que contienen **HIERRO** (como formula para bebes enriquecida con hierro, cereales con hierro, o carnes) todos los dias.
- ❑ 18. **No salte comidas.** El plomo entra al cuerpo más rapido en el estomago vacio.

USE EXTRA PRECAUCIÓN CON LAS REPARACIÓNES DE LA CASA

- ❑ 19. Mantenga al **niño/a fuera de la casa durante las** reparaciónes.
- ❑ 20. Las reparaciónes crean polvo que contiene plomo. Haga una **LIMPIEZA ESPECIAL** extra antes de que su niño/a regrese.

DISMINUYA EL PLOMO EN EL AGUA

- ❑ 21. Use agua fria para tomar y para cocinar.

© Children's Memorial Hospital, Chicago, IL, 1999
May be photocopied.

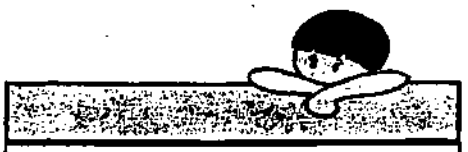
Colorado Department of Public Health and Environment

El Programa de la Prevención de Envenenamiento por Plomo de Colorado

El Departamento de Salud Pública y Medio Ambiente del Estado de Colorado
El Programa de Prevención de Envenenamiento por Plomo del Estado de Colorado
4300 Cherry Creek Drive South, Denver, Co 80246 303-692-2700
Para más información de cualquier lugar en el estado, llame al 1-800-886-7689
O, use nuestra dirección de internet: www.cdphe.state.co.us/dc/aboutdceed.asp#leadpoisonprog

¿Sabía Ud.?

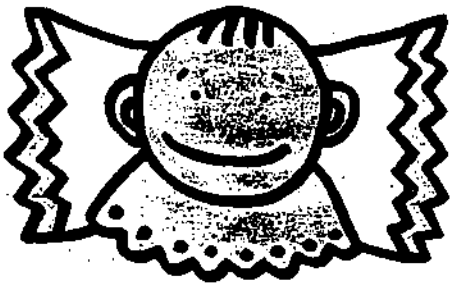
- El plomo es más peligroso para los niños entre 6 meses y 6 años de edad.
- 99 % de las casas construidas antes de 1940 contienen alguna pintura basada en plomo.
- La mayoría de los niños que tienen envenenamiento de plomo no tienen síntomas.
- Algunas persianas con tiras de plásticos hechas fuera de los EEUU contienen plomo.
- Juguetes y dulces importados pueden tener plomo.
- Las cerámicas de otros países pueden contener plomo.
- Remedios caseros como Greta y Azarcon contienen plomo.
- Algunos trabajos y pasatiempos podrían exponer su niño al plomo.



Encontramos plomo en el aire, la tierra, el agua, la pintura, y el polvo. Si el plomo entra al cuerpo de un niño, puede causar problemas médicas permanentes y de aprendizaje. Una prueba sencilla de sangre es la única manera de saber si su niño tiene envenenamiento por plomo.

Algunos Efectos del Plomo

- Dificultades de concentración
- Falta de apetito
- Problemas para dormir
- Daño auditivo
- Problemas de aprendizaje
- Problemas de desarollo
- Mal coordinación / articulación musculosa
- Problemas de hablar, lenguaje, comportamiento



Como Puede Prevenir el Envenenamiento por Plomo en Su Niño

- Lave las manos por lo menos 5 veces al día y lave los jugetes con frecuencia.
- Asegúrese que los niños mantienen una dieta llena de calcio, vitamina C, y hierro.
- Limpie los pisos y marcos con detergente y agua.
- Limpie pedazos de pintura con un trapo, esponja, o toalla de papel mojada. <u>Si sospecha que contiene plomo, tire el trapo, esponja, o toalla mojada en la basura después de limpiar.</u>
- Si está remodelando una casa vieja, **NUNCA** use raspador o una lijadora en seco, soplete de propano o pistola de alta temperatura para quitar la pintura.
- Cuando sea posible, es mejor que los niños juegen en zacate o césped en vez de la tierra.

Colorado's Lead Poisoning PreventionProgram

The Colorado Department of Public Health and Environment, Lead Poisoning Prevention Program
4300 Cherry Creek Drive South, Denver, Co 80246 303-692-2700

For more information anywhere in the state, call 1-800-886-7689 or
use our internet address: www.cdphe.state.co.us/dc/aboutdceed.asp#leadpoisonprog

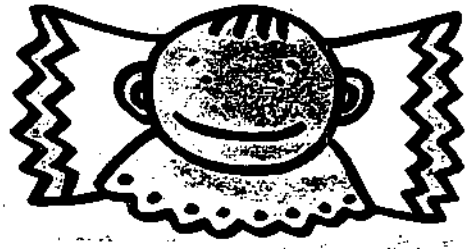
Did you Know??

- Lead mostly affects children 6 months old to 6 years old.
- 99 % of homes built before 1940 contain some lead paint.
- Most children who have lead poisoning don't have symptoms.
- Some plastic miniblinds made outside the USA contain lead.
- Imported toys and candy could contain lead.
- Ceramic dishes made in foreign countries may contain lead.
- Home remedies and some cosmetics may contain lead.
- Certain jobs and hobbies may expose you or your child to lead.

Lead can be found in air, water, paint, soil and dust. If lead enters a child's body, it may cause permanent problems and learning delays. The only way to know if a child has lead poisoning, is to have a blood lead test.

Here are Some Effects of Lead Poisoning

- Short attention span
- Loss of appetite
- Trouble sleeping
- Hearing damage
- Learning problems
- Slowed development
- Poor muscle coordination
- Speech, language and behavior problems

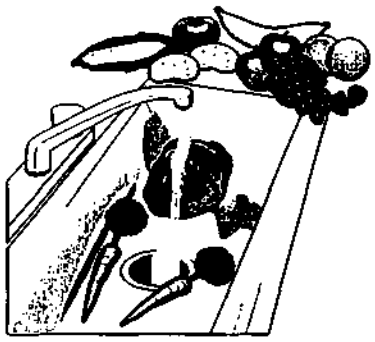


How You Can Prevent Your Child From Getting Lead Poisoning

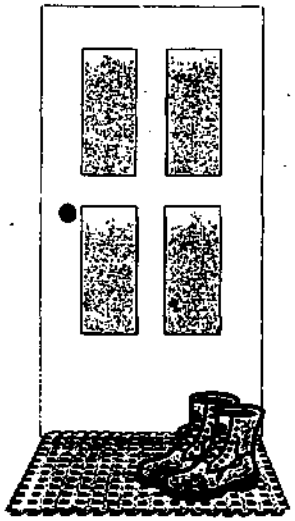
- Wash your child's hands at least 5 times a day and wash toys frequently.
- Give your child foods rich in vitamin C, Calcium and Iron.
- Clean floors and window sills with detergent and water.
- Wipe up any paint chips with a wet sponge, rag, or paper towel. <u>If you suspect the paint contains lead, throw away the sponge, rag, or paper towel after cleaning.</u>
- If you are remodeling your older home **NEVER** dry sand or scrape lead based paint.
- Encourage your children to play in grassy areas instead of on dirt.

Ways to protect your health

By keeping dirt from getting into your house and into your body



Wash and peel all fruits, vegetables, and root crops



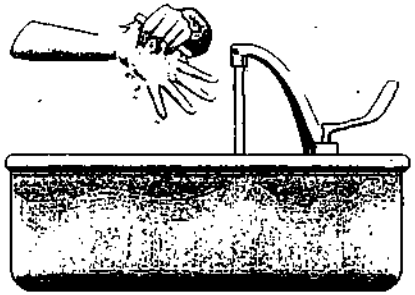
Wipe shoes on doormat or remove shoes

Don't eat food, chew gum, or smoke when working in the yard

Damp mop floors and damp dust counters and furniture regularly

Wash dogs regularly

Wash children's toys regularly

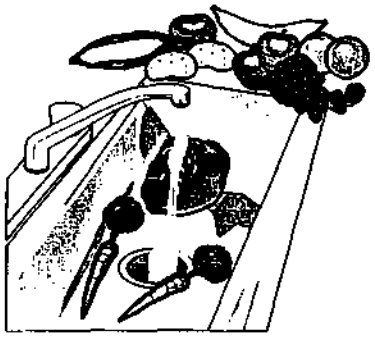


Wash children's hands and feet after they have been playing outside

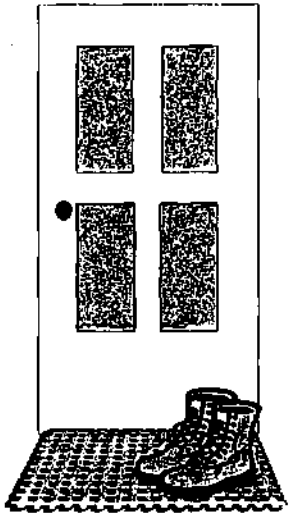
99dm90a.cdr

Cómo proteger su salud

Evitando que el polvo entre a su casa o a su cuerpo



Limpie y pele las frutas, los vegetales y las viandas



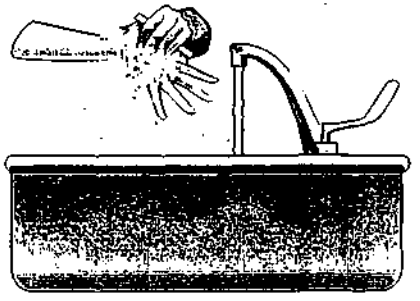
Limpiese los zapatos en la alfombra de la entrada o quitese los zapatos

No coma, mastique goma de mascar, o fume mientras esté trabajando en el patio

Limpie la casa con paño y trapeador húmedo

Bañe a los perros regularmente

Limpie regularmente los juguetes de los niños



Lave las manos y los pies de sus niños después de que hayan estado jugando afuera

Fact Sheet

Some Facts About Soil Sampling in the Neighborhood

Fact Sheet
Number 2
April 1999

This fact sheet explains past and future soil sampling efforts in the Swansea, Elyria, Cole, Clayton, and Globeville neighborhoods.

The Colorado Department of Public Health and Environment (CDPHE) sampled 25 homes in Swansea and Elyria in 1997 as part of its studies at the Asarco Globe cleanup in Globeville. As a result, CDPHE asked the U.S. Environmental Protection Agency (EPA) to do a more complete study in the area.

PHASE I

In spring of 1998, EPA completed its first broad sampling effort. Soil was tested for arsenic and lead. This effort included all of Swansea and Elyria, and parts of Cole and Clayton. The actual sampling boundaries were 56th Avenue to the north, 38th Avenue to the south. Colorado Boulevard to the east and the South Platte River to the west.

In order to sample a property, EPA needs written permission from the owner. EPA sent letters to property owners requesting this permission. About 20 percent responded with signed permission. EPA then walked door to door in the area to request permission to sample more properties. This resulted in 1,152 people giving EPA permission to sample their yards. All of these 1,152 properties were sampled, including 4 schools and 7 parks.

The results of this sampling found arsenic and lead contamination in no particular pattern. The schools and parks sampled all had low levels of arsenic and lead. Some yards had low levels of contamination while others, even neighboring yards, had higher levels of contamination. A few properties had high enough levels for EPA to recommend cleanup. However, to confirm these high levels, more sampling was needed before cleanup.

FOR MORE INFORMATION PLEASE CONTACT:

Ted Fellman (EPA) at (303) 312-6119;
Pat Courtney (EPA) at (303) 312-6631;
Bonnie Lavelle (EPA) at (303) 312-6579; or
Barbara O'Grady (CDPHE) at (303) 692-3395.

PHASE II

A second sampling effort was conducted in summer of 1998. The boundaries for this sampling were slightly expanded. The additional sampling extended further south to 35th Avenue, covering more of Cole and Clayton, and a part of Globeville south of I-70.

EPA again sent letters to property owners requesting permission to sample. EPA did not go door to door, but instead focused on sampling yards to confirm high levels of contamination that might need cleanup. EPA sampled 241 properties in this effort. Sampling results showed 21 properties in need of immediate cleanup due to high levels of arsenic or lead in the soil (greater than 450 ppm for arsenic, greater than 2,000 ppm for lead[1]). EPA removed the soil at 18 of these properties in the fall of 1998. Three property owners did not give EPA permission to clean up their yards.

[1] ppm stands for parts per million and is a unit of measurement for metals in soil. It is like one grain of arsenic or lead in a million grains of sand. Sampling results from individual properties are in parts per million.

MORE SAMPLING THIS SUMMER

EPA is getting ready for another large sampling effort this summer. EPA is seeking funds to sample all yards within the study area. The results of this and past sampling efforts will be used to identify additional properties in need of cleanup in the future. **Permission from property owners is essential for this summer's sampling effort.** EPA will be sending letters to property owners requesting permission before sampling begins. Please sign the agreement and send it back if you want to have your property sampled, or encourage the owner of the property to give written permission for soil sampling. You can also call Ted Fellman at (303) 312-6119, Pat Courtney at (303) 312-6631, or Bonnie Lavelle at (303) 312-6579 for more information or to make sure that your name is on the sampling list.

HOJA DE DATOS

Algunos hechos sobre la Colección de Muestras de Tierra en los Vecindarios

Hoja de Datos
Número 2
Abril de 1999

Esta hoja factual explica los trabajos de colección de muestras de tierra realizados en el pasado y el futuro en las vedindarios de Swansea, Elyria, Cole, Clayton y Globeville.

El Departamento de Salud Pública y Medio Ambiente de Colorado (CDPHE, sus siglas en inglés) colectó muestras en 25 casas de Swansea y Elyria en 1997 como parte de los estudios de limpieza de Asarco Globe en Globeville. Como resultado de tal estudio, el CDPHE le pidió a la Agencia de Protección del Medio Ambiente (EPA, sus siglas en inglés) realizar un estudio completo en esta zona.

FASE I

En la primavera de 1998, la EPA concluyó el primer proyecto de colección. Se examinó la tierra para la presencia de arsénico y plomo. En este trabajo se incluyó toda Swansea y Elyria y algunos partes de Cole y Clayton. Los límites reales de la colección son al norte la Avenida 56, al sur la Avenida 38, al este Colorado Boulevard, y oeste el rio South Platte.

Para poder colectar muestras de tierra en una propiedad, la EPA requiere una autorización por escrito del propietario. La EPA envió cartas por correo a los propietarios solicitando tal autorización. Cerca del 20 por ciento respondió firmándola. Seguidamente, la EPA fue de puerta en puerta en la zona para solicitar permiso para colectar muestras en más propiedades. Esto resultó en que 1,152 personas autorizaran a la EPA para llevar a cabo la colección en sus propiedades. Todas las 1,152 propiedades fueron examinadas, incluyendo 4 escuelas y 7 parques.

En los resultados de esta colección se detectó la presencia de contaminación por arsénico y plomo sin ningún modelo en particular. Todas las muestras de las escuelas y parques dieron resultados de contenido bajo en arsénico y plomo. Algunos patios dieron resultados bajos de contaminación mientras que otros, incluso los patios de los vecinos, dieron resultados con niveles de contaminación mayores. Unas cuantas propiedades dieron resultados suficientemente elevados para que la EPA recomendara la limpieza de las mismas. No obstante, para confirmar estos niveles elevados, se tuvo que realizar más colección de muestras de tierra antes de comenzar la limpieza.

Para más información, por favor llame a Ted Fellman al (303) 312-6119

FASE II

Un segundo proyecto de colección se llevó a cabo en el verano de 1998. Los límites de esta colección se expandieron un poco más. La colección adicional se extendió más al sur hasta la Avenida 35, cubriendo más la zona de Cole y Clayton y parte de Globeville al sur de la autopista I-70.

La EPA nuevamente envió cartas a los propietarios de casas solicitando la autorización para llevar a cabo la colección de muestras. Esta vez, la EPA no fue de puerta en puerta, pero, se enfocó en la confirmación de los niveles elevados de contaminación que pudieran necesitar limpieza. La EPA analizó 241 propiedades en este trabajo. Los resultados de las muestras mostraron 21 propiedades con una inmediata necesidad de limpieza debido a los elevados niveles de arsénico o plomo detectados en la tierra (mayores de 450 ppm para arsénico y mayores de 2,000 ppm para plomo[1]). La EPA removió la tierra en 18 de estas propiedades en el otoño de 1998. Tres propietarios no autorizaron a la EPA a llevar a cabo la limpieza de sus patios.

[1]ppm significa partes por millón y es una unidad de medición para metales presentes en la tierra. Es similar a un grano de arsénico o plomo en un millón de granos de arena. Los resultados de la colección de muestras de las propiedades individuales son en partes por millón.

MAS DE COLECCION DE MUESTRAS ESTE VERANO

La EPA se está preparando para realizar otro gran trabajo de colección de muestras este verano. La EPA está solicitando los fondos correspondientes para llevar a cabo la colección de muestras en todos los patios comprendidos en el área del estudio. Los resultados de esta colección de muestras y las del pasado servirán para identificar los propiedades adicionales que necesitarán una limpieza en el futuro. **La autorización de los propietarios para realizar el trabajo de colección este verano es importantísima.** La EPA enviará cartas a los propietarios solicitando la autorización correspondiente antes de comenzar el trabajo de colección. Por favor, firme el acuerdo y envíelo si desea que se lleve a cabo la colección en su propiedad, o aliente al propietario de la propiedad en la que usted vive a dar la autorización para que se lleve a cabo tal colección. También puede llamar a Ted Fellman al (303) 312-6119 para mayor información o para asegurarse de que su nombre esté registrado en la lista de colección.

VB 9A

FOR MORE INFORMATION ABOUT ACTIVITIES RELATED TO SOIL SAMPLING AND CLEANUP IN FIVE DENVER NEIGHBORHOODS
(Swansea, Elyria, Cole, Clayton, and Globeville)

U.S. Environmental Protection Agency- EPA is an environmental regulatory agency of the federal government. It is responsible for carrying out and enforcing environmental laws and regulations aimed at protecting public health and the environment. The EPA is the lead agency for sampling and cleanup activities related to metals (arsenic and lead) contamination found in the soil at some homes in Swansea, Elyria, Cole, Clayton and Globeville.

Bonnie Lavelle, Project Manager	303-312-6579
Dr. Chris Weis, Toxicologist	303-312-6671
Ted Feilman, Community Involvement Coordinator	303-312-6119
Pat Courtney, Community Involvement Coordinator	303-312-6631
John Ogden, Technical Assistance Grant Coordinator	303-312-6688
Mike Wenstrom, Environmental Justice	303-312 7009

Colorado Department of Public Health and Environment- CDPHE is the department in the State of Colorado responsible for ensuring protection of public health and the environment. CDPHE will provide input to EPA on sampling and cleanup activities for the neighborhoods around Vasquez Boulevard and I-70 that are affected by metals contamination.

Barbara O'Grady, Project Manager	303-692-3395
Marion Galant, Community Involvement Manager	303-692-3304

U.S. Agency for Toxic Substances and Disease Registry- ATSDR is a public health agency of the federal government. It is responsible for assessing public health threats related to hazardous waste sites and for responding to public health concerns expressed at those sites. ATSDR will provide input to EPA on sampling and cleanup activities for the neighborhoods around Vasquez Boulevard and I-70 that are affected by metals contamination.

Susan Muza, ATSDR Regional Representative	303-312-7011

Denver Department of Environmental Health - DDEH is the department of the City and County of Denver that is responsible for addressing local public health issues and enforcing City ordinances. DDEH will provide input to EPA on sampling and cleanup activities for the neighborhoods around Vasquez Boulevard and I-70 that are affected by metals contamination.

Celia VanDerLoop, Environmental Program Manager	303-285-4065

Community Leaders will provide input to EPA on sampling and cleanup activities for the neighborhoods around Vasquez Boulevard and I-70 that are affected by metals contamination. Community Leaders and residents will be participating in meetings and working groups related to sampling, risk assessment and cleanup in the neighborhoods of Swansea, Elyria, Cole, Clayton and Globeville.

Cross Community Coalition	
Lorraine Granado, Director	303-292-3203
COPEEN - Colorado Peoples' Environmental and Economic Network	
Melissa Muñoz, Project Coordinator	303-292-1236
United Swansea and Elyria Neighborhood Association	
Michael Maes, President	303-292-3203
Clayton Neighborhood Association	
Anthony Thomas	303-399-1379
Joan Hooker	303-322-0920
Cole Neighborhood Association	
Sandy Douglas, President	303-297-8653
Cole Family Resource Center	
Ken Sprauve, Resource Coordinator	303-295-4011
Globeville Community Resource Center	
Toni Riley, Director	303-295-0171
Globeville Civic Association	
Margaret Escamilla, President	303-296-2400, x104
Asarco Globe Site Technical Assistance Grant	
Chuck Patterson, Technical Advisor	303-494-3645

June 1999

FACTS ABOUT LEAD AND ARSENIC IN RESIDENTIAL SOIL

EPA Samples Northeast Denver Soil

The Environmental Protection Agency (EPA) and the Colorado Department of Public Health and Environment (CDPHE) conducted sampling which shows that some soil in the Elyria, Swansea, Cole, Clayton and South Globeville neighborhoods in Denver, Colorado contain lead and arsenic at concentrations that may pose a health threat to area residents. EPA is now doing additional sampling to better define the areas of concern.

This fact sheet answers questions residents may have about exposure to lead and arsenic, the risks of such exposure, and how people can minimize the possibility of exposure.

How can I come in contact with lead and arsenic?

Lead is a common metal used in many aspects of our daily lives. It is found in leaded gasoline, household plumbing, and paint. For the last decade, government regulations have tried to reduce our exposure to lead from such products because of lead's threat to health - especially children's health.

Although arsenic is not used in consumer products anymore, it is a naturally occurring metal. All of us are exposed to low levels of arsenic in air, water, and food.

People may come in contact with higher concentrations of these metals in neighborhoods where industrial activity may have contributed metals to soil or where traffic has contributed due to historical use of leaded gasoline. Exposure happens by directly contacting contaminated soil and dust. Direct contact occurs in two main ways:

✓By swallowing contaminated soil, dust, or vegetables grown in contaminated soil; or

✓By breathing air containing contaminated dust inside or outside the home.

Swallowing soil and dust may accidentally happen while smoking or eating with unwashed hands.

Usually metals found in garden produce are lower than the metal concentration in the soil. Application of compost and other soil additives tends to decrease plant uptake of metals found in soil. However, some fertilizers may increase the amount of metals found in vegetables. Generally, green leafy vegetables are most likely to absorb metals from the soil. EPA may sample garden vegetables if metals are found at high levels in gardens.

Information Repositories, containing information about this site, are located at:

Valdez-Perry Library
4690 Vine Street

Ford Warren Library
2825 High Street

Cross Community Coalition
2332 East 46th Avenue

Globeville Community Resource Center
4400 Lincoln Street

What are the health effects of lead?

Lead can accumulate in the body over time if exposure is frequent or continuous. It can cause harm if present above certain levels in the human body. Lead can affect the development of the nervous system, including impaired learning ability and hearing, and the reproductive system. Children are especially vulnerable to lead contamination for the following reasons:

✔ Their bodies and brains are still developing and they absorb more lead than adults.

✔ Children often play outside where they are more likely to be exposed to lead in the soil. They are more likely to put dirty fingers and toys into their mouths.

What are the health effects of arsenic?

Although we all carry small levels of arsenic, this metal does not readily accumulate in the body. Most arsenic that is absorbed into the body is efficiently passed in the urine. Harmful health effects related to long-term exposure to too much arsenic include lung and skin cancer and digestive tract problems.

It is important to remember that these same symptoms and illnesses can be caused by a variety of other health problems. It is best to ask a doctor about the causes of any health problems.

Because some properties in the Northeast Denver area contain elevated lead and arsenic, EPA will evaluate what risks they pose to residents. If it is determined that there are locations with concentrations of lead and/or arsenic in the soil that are immediately hazardous to residents, EPA will take action to limit their exposure to these metals. EPA removed the soil at 18 properties in the fall of 1998 with metals levels high enough to be considered an immediate threat.

How can I reduce my exposure to metals in the soil?

Residents in the area can take the following precautions to reduce their exposure to lead and arsenic:

☞ Wash hands thoroughly before eating or handling food. Parents should wash their children's hands periodically during the day as well.

☞ Pay close attention to children's nutrition and try to eat a well-balanced diet.

☞ Both children and adults should wash their hands after petting a dog or other animal because animal fur can hold contaminated dust.

☞ Avoid smoking with dirty hands.

☞ Wash all home garden fruits or vegetables well.

☞ Wash children's outdoor toys when they are dirty or dusty.

☞ Keep your house free of dust. Keep windows and doors closed when it is windy. Change air conditioner and furnace filters at least every six months.

☞ Clean regularly and use a damp cloth to clean any surfaces that are frequently touched by hands, such as tables and desks.

While taking these measures will not solve the contamination problem, they are relatively simple and will help reduce your contact with contaminated soil and house dust. Please talk to your doctor, healthcare provider, or local clinic if you would like to have yourself or your child tested for metals in the body.

How can I get more information?

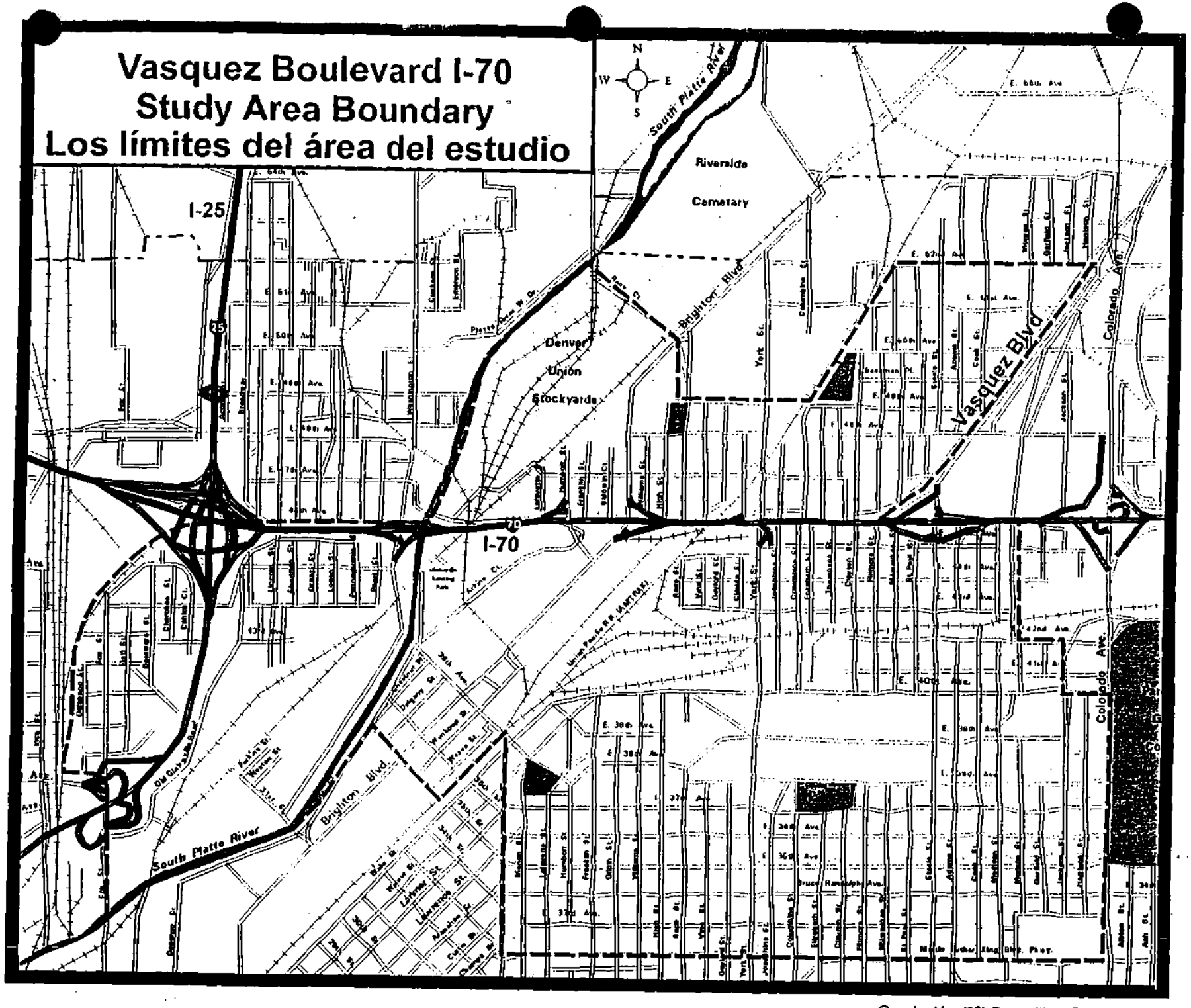
If you have questions, please call:

Ted Fellman (se habla español) at (303) 312-6119

Pat Courtney at (303) 312-6631

Bonnie Lavelle at (303) 312-6579

Vasquez Boulevard I-70 Study Area Boundary
Los límites del área del estudio



Created by ISSI Consulting Group, Inc.

VB I-70

Fact Sheet

Why is the EPA in Cole & Clayton?

Fact Sheet
Number 3
June 1999

What is the EPA?

The United States Environmental Protection Agency (EPA) was created by Congress in 1970 to protect human health and the environment.

What has the EPA done in Cole and Clayton?

The EPA began sampling soil near smelter sites to the north in Globeville, Elyria, and Swansea. The sampling expanded south into Cole and Clayton when no clear boundaries were found to the contamination. In the spring of 1998, sampling reached as far south as 38th Street. That summer a smaller sampling effort included some properties down to 35th Street.

What has soil sampling found in Cole and Clayton?

Soil sampling has shown arsenic and lead in some residential yards. The majority of yards sampled have low levels, but the EPA is studying the potential health risks of these metals in the neighborhoods.

Is there really a problem in Cole and Clayton?

Most of those yards sampled showed low levels of metals. Still, there is not a clear pattern to where higher levels are found. The EPA needs to sample more properties in Cole and Clayton. So far, around 186 properties in Cole and 189 in Clayton have been sampled. The EPA found contamination high enough at 1 property in Cole and 3 in Clayton to require an immediate cleanup. These 4 cleanups were completed in November 1998. As more sampling is done and the health risks are studied, the EPA will better understand the problem.

Information is publically available at the Ford Warren Library

2825 High Street, Denver, CO 80205
Tel: (303) 294-0907
Hours: M & Th 10:30 am -5:00 PM
T & W 10:30 AM - 9:00 PM
Sat. 10:30 AM - 4:30 PM

Public Meeting

Come to a public meeting on soil sampling in Cole and Clayton.

When: June 22, 1999, 7:00 PM
Where: Harrington Elementary
2401 East 37th Avenue

What additional sampling is planned?

The EPA plans to sample all residential properties in Cole and Clayton this summer.

Why should I get my property sampled?

Soil sampling is the only way to find out if your property has soil contaminated with metals. The EPA is studying the health risks of these metals to determine if cleanup will be necessary. Sampling is a free service for property owners.

Why has my neighborhood been proposed as a Superfund site?

On January 19, 1999, this area, along with other neighborhoods, was proposed to the Superfund National Priorities List. This is a list of contaminated sites that are eligible for cleanup funding under the Superfund program.

For More Information Please Contact:

Ted Fellman (EPA) at (303) 312-6119;
Pat Courtney (EPA) at (303) 312-6631;
Bonnie Lavelle (EPA) at (303) 312-6579;
Barbara O'Grady (CDPHE) at (303) 692-3395; or
Marion Galant (CDPHE) at (303) 692-3304.

VB I-70

HOJA DE DATOS

¿Por qué está la EPA en Cole y Clayton?

Hoja de Da[illegible]
Número [illegible]
Junio de 1999

¿Qué es la EPA?

La Agencia de Protección del Medio Ambiente de los Estados Unidos (EPA, por sus siglas en inglés) fue creada por el Congreso en 1970, con el fin de proteger la salud humana y el medio ambiente.

¿Qué ha hecho la EPA en Cole y Clayton?

La EPA comenzó a colectar muestras de tierra en las cercanías sitios de fundición ubicados al norte en Globeville, Elyria y Swansea. Se expandió la colección de muestras hacia el sur hasta Cole y Clayton, cuando no se encontraron los límites claros de los contaminantes. En la primavera de 1998, la colección se extendió tan lejos al sur hasta la calle 38. Aquel verano, se llevó a cabo un trabajo de colección menor que incluía algunas propiedades hasta la calle 35.

¿Qué se detectó al analizar las muestras de tierra de Cole y Clayton?

Las muestras de tierra mostraron la presencia de arsénico y plomo en algunos patios residenciales. La mayoría de las muestras de tierra de los patios analizadas tienen niveles de contaminación bajos; no obstante, la EPA está estudiando los posibles riesgos que estos metales pueden causar a la salud de los residentes de estos vecindarios.

¿Existe realmente algún problema en Cole y Clayton?

La mayoría de los patios analizados resultaron en niveles bajos de contaminación por metal. Aún así, no existe ningún patrón claro que establezca dónde se encuentran los niveles más elevados. La EPA necesita analizar más muestras de las propiedades ubicadas en Cole y Clayton. Hasta la fecha, se han analizado muestras de tierra en 186 propiedades de Cole y 189 de Clayton. La EPA encontró que 1 propiedad en Cole y 3 propiedades en Clayton tenían un nivel de contaminación tan elevado como para llevarse a cabo la limpieza inmediata de las mismas. Se completó la limpieza de estas 4 propiedades en noviembre de 1998. Mientras más muestras se colecten y más estudios sobre los riesgos contra la salud se hagan, la EPA comprenderá mejor el problema.

Para más información,
por favor llame a Ted Fellman al
(303) 312-6119

Reunión Pública

Venga a una reunión pública sobre la colección de muestras de tierra en Cole y Clayton.

¿Cuándo? El 22 de junio de 1999 a las 7:00 PM
¿Dónde? Harrington Elementary
2401 East 37th Avenue
Denver, CO

¿Qué trabajo de colección de muestras adicional se ha planeado?

La EPA planea analizar las muestras de todas las propiedades residenciales de Cole y Clayton este verano.

¿Por qué se deben tomar muestras de tierra en mi propiedad?

La colección de muestras de tierra es la única forma de averiguar si su propiedad contiene tierra contaminada con metales. La EPA está estudiando los riesgos contra la salud que estos metales producen para determinar si la limpieza es necesaria. Tal colección es un servicio gratuito para todos los propietarios de las viviendas.

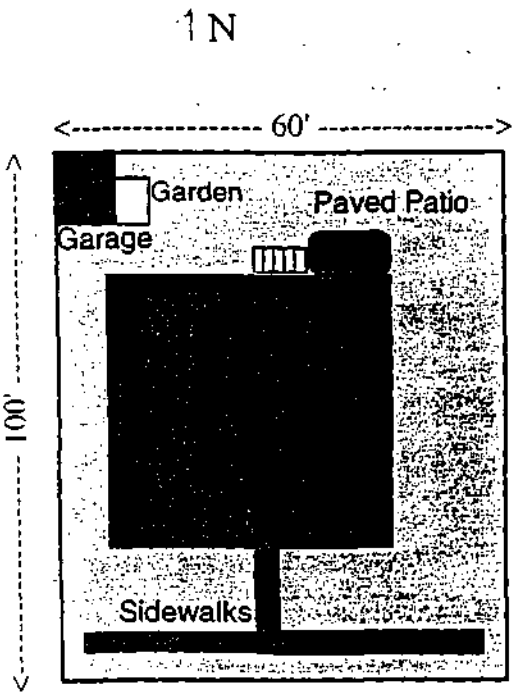
¿Por qué se han propuesto mi vecindario como un sitio del Superfondo?

El 19 de enero de 1999, esta zona, junto con otros vecindarios, fue propuesta para la Lista de Prioridades Nacionales del Superfondo. Esta es una lista que contiene los sitios contaminados que son elegibles para ser subvencionados por el fondo de limpieza bajo el programa *Superfondo*.

La información se encuentra disponible al público en la biblioteca
Ford Warren Library
2825 High Street
Denver, CO 80205
Tel: (303) 294-0907
Horario: lunes y jueves 10:30 am - 5:00 pm
martes y miércoles10:30 am - 9:00 pm
sábado 10:30 am - 4:30 pm

PHASE 3 SOIL SAMPLING
VASQUEZ BOULEVARD / I-70 SITE

SAMPLING PROCEDURE



1. INITIAL PREPARATIONS

Check if resident home and yard is accessible

Sketch Yard

Map sampling grid

Stake sample locations

2. COLLECT SAMPLES USING HAND AUGER

Cut away 2" circle of sod, collect soil from all sample locations for Composite #1
Prepare Split Sample for resident if requested
Place soil in labeled container
Clean equipment

Cut away 2" circle of sod. collect soil from all sample locations for Composite #2
Prepare Split Sample for property owner if requested
Place soil in labeled container
Clean equipment

Etc.

3. WRAP UP

Fill in sample holes with soil and replace sod

Document sample locations, sample identifications, sample times, etc.

Complete equipment cleaning and discard rinse water

Colorado Department of Public Health and Environment

April 1999

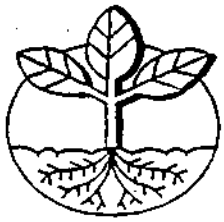
Home Gardening

For the residents of Globeville (south of I-70), Swansea, Elyria, Cole and Clayton neighborhoods

Several public health agencies are studying soil samples in your neighborhood to see if there are any metals present that might pose a health risk. More information will be available from these ongoing studies, and this information may need to be revised.

If you decide to garden this season, here is some general information about metals and gardening, and some steps that you can take to reduce the levels of metals that fruits and vegetables grown in your garden may take in if there are metals present in your garden soil.

Metals and gardening



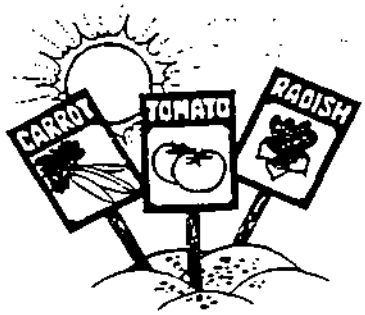
- Garden soils tend to have less metal than the rest of the yard. This is because people have added commercial garden products or materials from outside the area like topsoil and compost to their garden soil.

- Fruits and vegetables from the garden usually have less metal than the soil they are grown in. This is because not all the metal is absorbed by the plants.

- The primary way plants take in metals is from the roots, along with the nutrients plants need for growth. A smaller amount of metals may get into the plant in small particles the plant "breathes" in through leaf openings. Metals may also be present in the dust or soil that collects on the outside of the plant.

- The ability of a plant to take up metals from soil and store them in their leaves and fruits varies from plant to plant.

What can I do to help protect my health?



Your garden soil

- You can add things such as compost, topsoil and phosphate from commercial and other outside sources to your garden soil. These products are available at your local garden store, will enrich your soil, and will help reduce the amount of metals that can be taken up by plants in your garden.

- After gardening be sure to wash up, especially your hands, clothes and shoes, to remove dust and dirt and to avoid tracking soil into your home.

Your fruits and vegetables

- You can eat some fruits and vegetables grown from your garden, and some from the grocery store. This will reduce the possibility of being exposed to metals which may be in your garden soil.

- Wash and peel fruits and vegetables to reduce the amount of dust and dirt on the outside of fruits and vegetables.

You can call the following people at the Colorado Department of Public Health and Environment for more information

For information on garden studies/health effects:
Jane Mitchell
(303) 692-2644 or 1(800)886-7689
jane.mitchell@state.co.us

Nancy Strauss *(habla español)*
(303) 692-2785 or 1(800)886-7689
nancy.strauss@state.co.us

For information on metals in your soil:
Barbara O'Grady
(303) 692-3395 or 1(888)569-1831
barbara.ogrady@state.co.us

Marion Galant
(303) 692-3304 or 1(888)569-1831
marion.galant@state.co.us

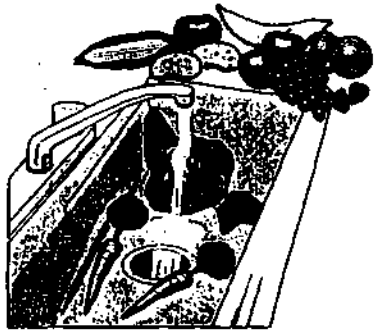
For more information about metals in your soil or health effects, you can also call the Agency for Toxic Substances and Disease Registry, Regional Representative Susan Muza at (303) 312-7011.

For more information about gardening in general, you can call the Colorado State University Cooperative Extension Master Gardener at (303) 640-5278.

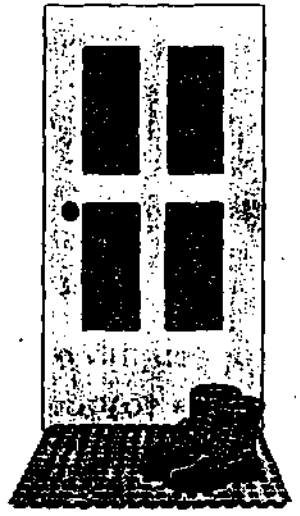
Prepared by: Colorado Department of Public Health and Environment, 4300 Cherry Creek Drive South, Denver, CO 80246-1530. This fact sheet was supported in whole by funds from the Comprehensive Environmental Response, Compensation, and Liability Act trust fund through a cooperative agreement with the Agency for Toxic Substances and Disease Registry, Public Health Service, US Dept. of Health & Human Services.

Ways to protect your health

By keeping dirt from getting into your house and into your body



Wash and peel all fruits, vegetables, and root crops



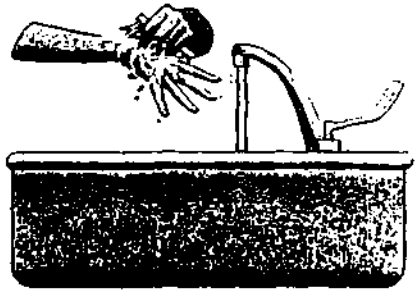
Wipe shoes on doormat or remove shoes

Don't eat food, chew gum, or smoke when working in the yard

Damp mop floors and damp dust counters and furniture regularly

Wash dogs regularly

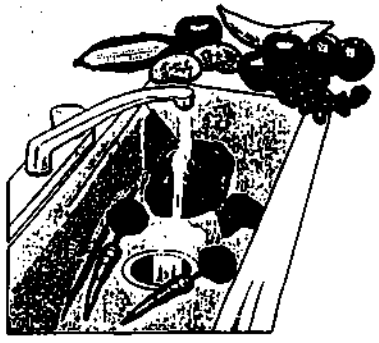
Wash children's toys regularly



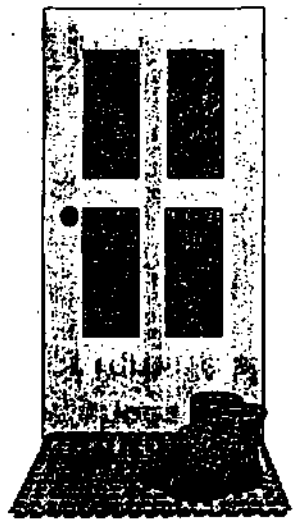
Wash children's hands and feet after they have been playing outside

Cómo proteger su salud

Evitando que el polvo entre a su casa o a su cuerpo



Limpie y pele las frutas, los vegetales y las viandas



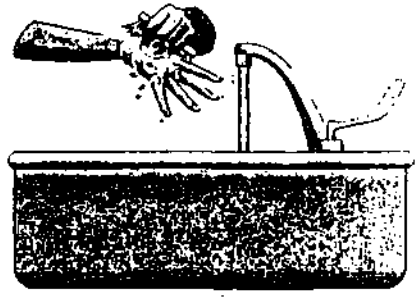
Limpiese los zapatos en la alfombra de la entrada o quitese los zapatos

No coma, mastique goma de mascar, o fume mientras esté trabajando en el patio

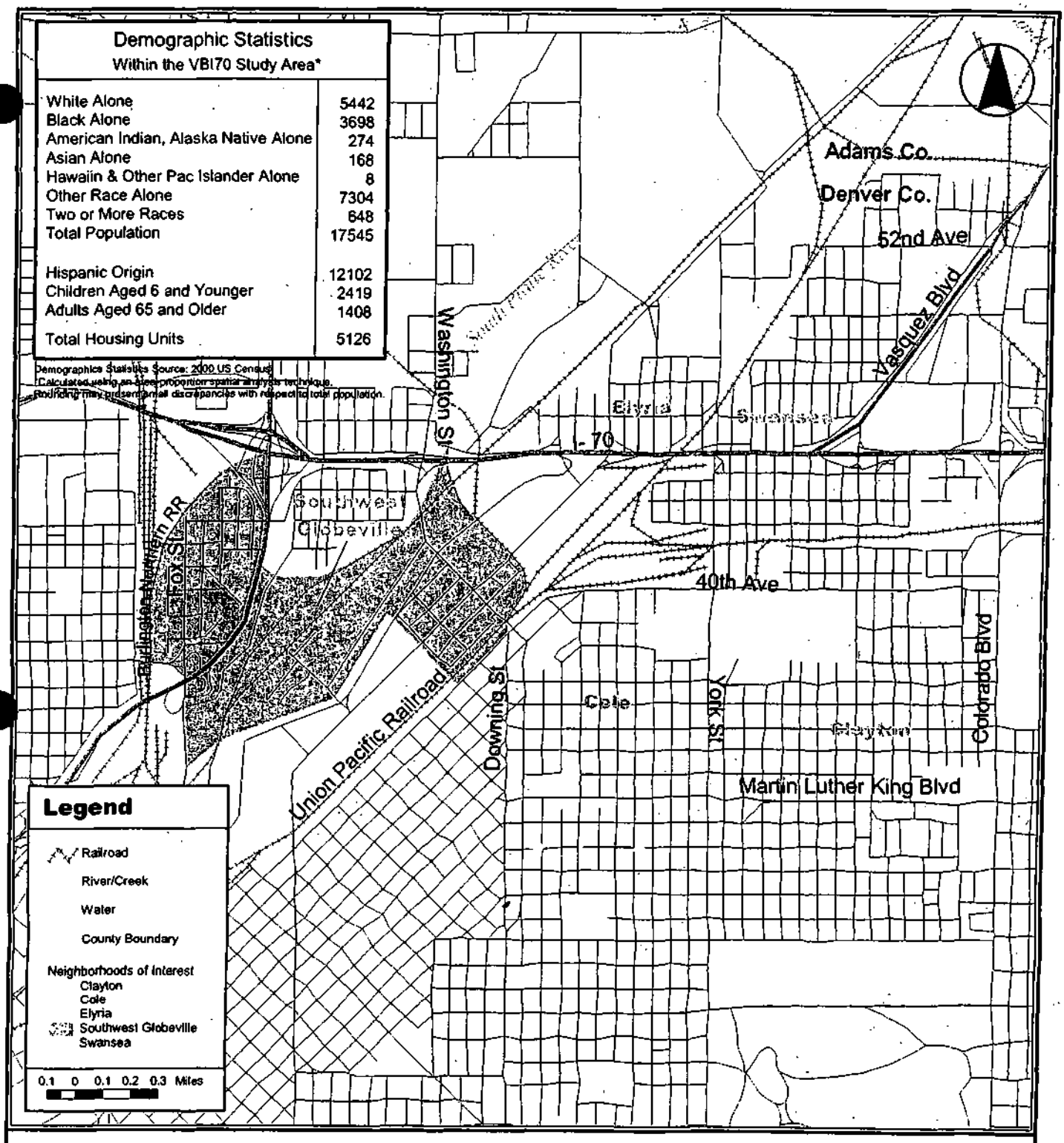
Limpie la casa con paño y trapeador húmedo

Bañe a los perros regularmente

Limpie regularmente los juguetes de los niños



Lave las manos y los pies de sus niños después de que hayan estado jugando afuera



Demographic Statistics Within the VBI70 Study Area*	
White Alone	5442
Black Alone	3698
American Indian, Alaska Native Alone	274
Asian Alone	168
Hawaiin & Other Pac Islander Alone	8
Other Race Alone	7304
Two or More Races	648
Total Population	17545
Hispanic Origin	12102
Children Aged 6 and Younger	2419
Adults Aged 65 and Older	1408
Total Housing Units	5126

Demographics Statistics Source: 2000 US Census
Calculated using an area proportion spatial analysis technique.
Rounding may present minor discrepancies with respect to total population.

Study Area Demographics
Vasquez Boulevard/I-70 Site

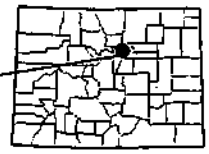
Denver, Colorado

CERCLIS No. CO0002259588

VICINITY MAP

Base Map Source: 1995 TIGER/Line files, U.S. Census

Site Location



Denver County, Colorado

ATSDR SWGIS

MAM 10122001

Figure 3

Agency for Toxic Substances and Disease Registry

ATSDR

ATSDR Site Activities at the Vasquez Boulevard/I-70 (VBI70) Site

March 2001

What Is ATSDR?

The Agency for Toxic Substances and Disease Registry (ATSDR) is a federal public health agency headquartered in Atlanta, Georgia. ATSDR is part of the U.S. Department of Health and Human Services. ATSDR works with communities; environmental groups; and other agencies such as federal, state, local, and tribal governments to protect the public's health from hazardous waste.

ATSDR's Involvement at VBI70

Since 1998, ATSDR has worked with other agencies and the community to address concerns about arsenic and lead contamination in the Swansea, Elyria, Cole, Clayton, and southwest Globeville areas of northeast Denver.

The ATSDR Health Team

ATSDR worked with the community and other agencies to form the VBI70 Health Team. The team includes members such as community members, representatives from local community groups, the U.S. Environmental Protection Agency (EPA), the Colorado Department of Health and Environment, and the County and City Health Department.

Since the Health Team began meeting in 1998, the group has planned several activities in the communities around the VBI70 site. For example, a question-and-answer session was held with a gardening expert from one of the local universities. Community members were invited to come and hear information about safe gardening in the VBI70 area and ask their gardening questions.

ATSDR Activities

Working with the VBI70 Health Team, ATSDR is conducting several activities at the VBI70 site. These activities include a public health assessment report, environmental health interventions project, health investigation, and health education.

The VBI70 Public Health Assessment

The public health assessment report presents a summary of the environmental data available for the site and describes who might be exposed to arsenic and lead in soil and how those individuals might be exposed. The report includes information about possible health effects that could occur if residents are exposed to contamination at the VBI70 site. The report also includes a public health action plan and a series of recommendations to federal, state, and local agencies about public health issues identified by ATSDR.

During the development of the report, ATSDR released a fact sheet about gardening in the VBI70 study area. ATSDR also held a workshop where a group of national experts was brought together to provide advice to the agency about children and adults who eat soil.

ATSDR and the VBI70 Health Team are using information from the report as they conduct other public health activities such as medical testing, community health education, and health care provider education in the communities around VBI70.

The Environmental Health Intervention Project

ATSDR will conduct an environmental health interventions project at the VBI70 site. ATSDR's decision to conduct the project was made on the basis of information gathered about arsenic and lead contamination in the area, and after discussions with residents. The program will include health education for residents and local health care providers about the VBI70 study area and about possible health effects from arsenic and lead exposure.

Health Investigation

ATSDR recently provided funds to the Colorado Department of Public Health and Environment to conduct a health investigation in the VBI70 study area. The health investigation will begin in spring 2002 and will address soil-pica behavior among preschool children and will identify household cases of acute and chronic arsenic and lead poisoning. Health investigation activities will include

- a community door-to-door census
- urine and hair arsenic testing in children
- blood lead testing
- exposure questionnaires to assess pica and soil ingestion behavior
- public meetings.

Health Education

ATSDR plans to conduct a community health education program related to the public health assessment and other agency activities. This program will include information on the public health assessment and information for residents who participate in the environmental health interventions project and health investigation. The materials will explain the purpose of the activities and methods used to collect information. ATSDR will also provide information to residents to assist them in understanding the information in these reports.

Where Can I Get More Information About ATSDR's Activities?

Contact David Mellard toll-free at 1-888-42ATSDR or at 404-498-0443 (e-mail: dam7@cdc.gov) or Chris Poulet in ATSDR's Denver office at 303-312-7013 (e-mail: cgp8@cdc.gov).

Agency for Toxic Substances and Disease Registry

ATSDR

Actividades de la ATSDR en el emplazamiento: Ubicación en Vasquez Boulevard y la I-70 (VBI70)

Marzo 2002

¿Qué es la ATSDR?
La Agencia de Sustancias Tóxicas y Registro de Enfermedades (ATSDR) es una agencia federal pública que tiene la sede en Atlanta, Georgia. La ATSDR y es parte del Departamento de Salud y Servicios Humanos de los EEUU. La ATSDR colabora tanto con grupos comunitarios y ambientales, como con otras agencias, tales como los gobiernos federales, estatales, municipales y tribales con el fin de proteger la salud pública en contra de desechos peligrosos.

La participación de la ATSDR en el barrio de VBI70
Desde 1998, la ATSDR ha trabajado con otras agencias y con la comunidad para entender las preocupaciones relacionadas con la contaminación con arsénico y plomo en las áreas de Swansea, Elyria, Cole, Clayton, y el suroeste de Globeville en el noreste de Denver.

El Grupo de Salud de la ATSDR
La ATSDR colaboró con la comunidad y otras agencias para formar el grupo de salud de VBI70, el cual incluye integrantes de la comunidad, representantes de grupos comunitarios, la EPA (Agencia para la Protección del Medio Ambiente de los EEUU) y el Departamento de Salud Municipal.

Desde que el grupo de salud empezó a reunirse en 1998, el grupo ha planificado varias actividades en las comunidades alrededor del sitio de VBI70. Por ejemplo, se llevó a cabo una sesión de preguntas y respuestas con un experto en jardinería de una de las universidades locales. Los residentes de la comunidad fueron invitados a asistir para escuchar información acerca de prácticas de jardinería con seguridad en la zona VBI70, y plantear sus preguntas de jardinería.

Actividades de la ATSDR
En colaboración con el grupo de salud de VBI70, la ATSDR está coordinando varias actividades en la zona VBI70, las cuales incluyen un informe de evaluación de la salud pública, el proyecto de intervenciones de salud ambiental, e investigación y educación sobre la salud.

La Evaluación de la Salud Pública en la VBI70
El informe de la evaluación de salud pública presenta un resumen de la información ambiental disponible del lugar y describe quién puede estar expuesto al arsénico o al plomo en la tierra y cómo estas personas pueden estar expuestas. El informe incluye información sobre los posibles efectos de salud que pudieran ocurrir si los residentes están expuestos a la contaminación en la zona de VBI70. También se incluye en el informe un plan de acción de salud pública y una serie de recomendaciones a agencias federales, estatales y municipales acerca de los asuntos de salud pública identificados por la ATSDR.

Durante el desarrollo del informe, la ATSDR publicó una hoja informativa sobre la jardinería en la zona estudiada de VBI70. La ATSDR también realizó un taller en donde se reunió un grupo de expertos nacionales para proporcionar a la agencia asesoramiento sobre los adultos y niños que comen la tierra.

El grupo de salud de VBI70 y la ATSDR están utilizando información del informe durante la realización de otras actividades de salud pública tales como exámenes médicos, educación comunitaria sobre la salud, y educación para proveedores médicos en las comunidades alrededor de la zona VB170.

El Proyecto de Intervención de Salud Ambiental

La ATSDR dirigirá un proyecto de intervenciones de salud ambiental en la zona VBI70. La decisión de la ATSDR de dirigir el proyecto fue tomada en base a la información recolectada sobre la contaminación de arsénico y plomo en el área, y luego de conversaciones con los residentes. El programa incluirá educación sobre la salud para los residentes y los proveedores médicos con respecto al lugar de estudio VBI70 y acerca de los posibles efectos de la salud causados por la exposición al arsénico y al plomo.

Investigación Sobre la Salud

La ATSDR recientemente dio fondos al Departamento de Salud Pública y Medio Ambiente de Colorado para conducir una investigación sanitaria en el área de estudio VBI70.

La investigación de salud

- empezará en la primavera del 2002 y
- estudiará el comportamiento llamado "pica" que representa el hábito entre los niños de edad preescolar de comer tierra or otras sustancias no comestibles
- y también identificará casos de intoxicación aguda y crónica por arsénico y plomo en los hogares.

Las actividades de la investigación sobre la salud incluirán:

- Un censo comunal de puerta a puerta
- Pruebas de orina y análisis del cabello de los niños.
- Análisis sanguíneos para identificación de plomo
- Cuestionarios de exposición para evaluar el comportamiento pica y el de ingestión de tierra
- Reuniones publicas

Educación Sobre la Salud

La ATSDR planea coordinar un programa comunitario de educación sobre la salud relacionado con la evaluación de la salud pública y otras actividades de la ATSDR. Este programa incluirá información de la evaluación de la salud pública e información para los residentes que participen en el proyecto de intervenciones de salud ambiental. Los materiales explicarán el propósito de las actividades y los métodos usados para recolectar información. La ATSDR también proporcionará información a los residentes para ayudarles a entender la información contenida en estos informes.

¿Dónde puedo conseguir más información acerca de las actividades de la ATSDR ?

Contacte a David Mellard gratuitamente al 1-888-42ATSDR o al 404-498-0443 (correo electrónico: dam7@cdc.gov) o a Chris Poulet en la oficina de la ATSDR en Denver al 303-312-7013 (correoelectrónico:cgp8@cdc.gov).

Arsénico en la tierra en el sitio de VB170

(Swansea, Elyria, Cole, Clayton, y el suroeste de Globeville)

VB170

La Tierra y la Salud

La ATSDR descubrió que el nivel de arsénico en algunos patios o jardines pueden representar un peligro en algunos niños y adultos.

Tierra que contiene arsénico puede introducirse en su cuerpo mientras

- está jugando
- está haciendo jardinería y
- está trabajando en el patio

Los Adultos y el Arsénico

Las personas que se criaron y permanecen en hogares con patios o jardines donde hay altos niveles de arsénico pueden tener más riesgo de contraer cáncer.

Pica

Algunos niños de edad preescolar comen grandes cantidades de tierra (aproximadamente 1 cucharadita) al jugar y explorar su mundo. Este comportamiento es denominado pica.

Pica es una preocupación especialmente para los niños que viven en casas donde hay altos niveles de arsénico en la tierra. Después de ingerir grandes cantidades de tierra con niveles de arsénico elevados, estos niños pueden padecer de problemas de la salud, por ejemplo:

- nausea o malestar estomacal,
- vómitos,
- inflamación de la cara,
- retorcijones,
- diarrea,
- dolores de cabeza.

ATSDR
AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY

Arsénico en la tierra en el sitio de VBI70

Arsénico en su jardín o patio

La EPA (Agencia para la Protección del Medio Ambiente de los EEUU) ha analizado tierra de los patios y jardines en la zona de Swansea, Elyria, Cole, Clayton, y el suroeste de Globeville para averiguar si hay niveles elevados de arsénico.

La Tierra y la Salud

Médicos y científicos de la ATSDR (Agencia de Sustancias Tóxicas y Registro de Enfermedades) han examinado los resultados de las muestras de tierra recolectadas de esta zona para determinar si el nivel de arsénico es suficientemente alto para causar problemas de salud para la gente que vive en esta zona. La ATSDR descubrió que el nivel de arsénico en algunos patios puede constituir una preocupación para la salud en algunos niños y adultos.

¿Como se puede introducir Arsénico al cuerpo?

La tierra que contiene arsénico puede introducirse al cuerpo a través de varias maneras. Cuando los niños juegan y los adultos trabajan en el jardín, a veces tocan cosas que están cubiertas por tierra o polvo y luego meten las manos u otros objetos en la boca. Cuando esto sucede, pequeñas cantidades de arsénico también entran al cuerpo, junto con la tierra o el polvo.

El tragar estas pequeñas cantidades de tierra con arsénico normalmente no causa problemas de la salud. Pero si el arsénico en la tierra es muy alto, tanto los niños como los adultos pueden enfermarse.

Los Adultos y el Arsénico

Los niveles de arsénico y el cáncer representan una preocupación en las personas que se criaron en una casa donde hay altos niveles de arsénico en la tierra y quienes siguen viviendo en la casa ya siendo adultos. Estas personas pueden tener más posibilidad de tener ciertos tipos de cáncer, tales como cáncer da la piel, del pulmón, de la vejiga, del riñón o del hígado.

Pica

Algunos niños de edad preescolar comen grandes cantidades de tierra (aproximadamente 1 cucharadita) al jugar y explorar su mundo. Este comportamiento se denomina "pica".

El hábito de pica preocupa especialmente en los niños que viven en casas donde hay altos niveles de arsénico en la tierra. Después de ingerir grandes cantidades de tierra con niveles de arsénico elevados, estos niños pueden padecer de problemas de la salud, incluyendo nausea o malestar estomacal, retorcijones, vómitos, diarrea, inflamación de la cara, y dolores de cabeza.

Usted Puede Protegerse

A continuación hay algunas medidas que usted puede realizar para proteger a su familia contra del arsénico en la tierra. Sería bueno que todos cumplieran con los siguientes consejos, pero son especialmente importantes si vive en una zona donde hay altos niveles de arsénico en la tierra.

VBI70

¿De dónde puedo conseguir mayor información sobre la Exposición al Arsénico en la tierra y sobre pica?

Para más información sobre arsénico y geofagia en la ubicación VBI70, comuníquese con:

David Mellard
ATSDR, Atlanta
1-888-42-ATSDR
or
1-404-498-0443

Chris Poulet
ATSDR, Denver
303-312-7012

ATSDR
AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY

- Observe a sus niños en edad preescolar mientras jueguen afuera. Procure que no coman tierra ni lodo y que no metan sus juguetes en la boca.

- Hable con los niños mayores sobre los posibles riesgos de comer tierra.

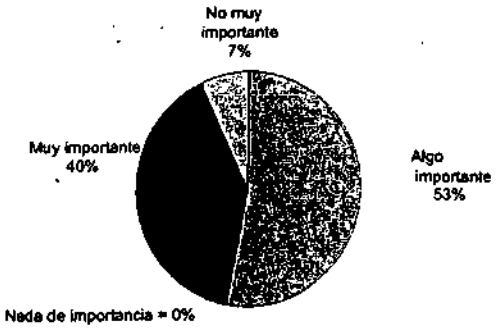
- Motive a los niños en edad preescolar a que jueguen en las partes del jardín o patio donde haya pasto or sacate.

- Hable con los adultos a cerca del no comer la tierra ni el lodo de sus jardines.

ATSDR
AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY

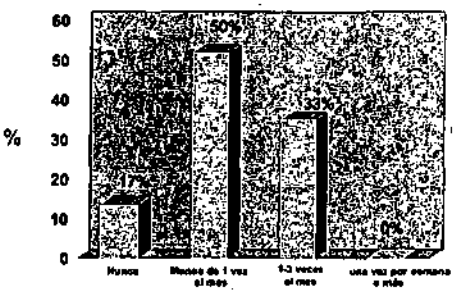
Respuestas de Médicos y Enfermeras acerca de los Asuntos de Salud Ambiental en la zona

?Importancia de la salud ambiental?



En su práctica profesional ¿qué tan importante es estar informado acerca de asuntos de la salud ambiental?

?Cada cuanto preguntan los pacientes?



¿Cuán frecuentemente le preguntan sus pacientes acerca de los potenciales efectos para la salud por la exposición ambiental u ocupacional a químicos o contaminantes en el hogar, el trabajo o la comunidad?

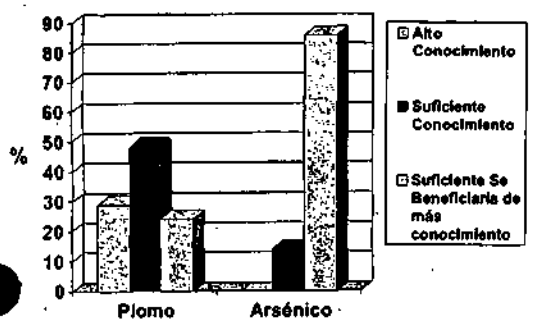
¿Qué es lo que más afecta a sus pacientes?

- **Contaminación**
- **Exposición al plomo**
- **Humo del tabaco**

¿Cuáles temas le interesan?

- **Tóxicos químicos industriales**
- **Contaminación del aire**
- **Remedios tradicionales**
- **Plomo o metales pesados**

Mida su conocimiento acerca de...



¿Cómo calificaría su nivel de conocimiento actual sobre los efectos en la salud de los siguientes peligros ambientales: muy alto, suficiente, o me beneficiaría de más información?

¿Cuáles son las razones más importantes porlas que participaría en la capacitación?

- **Los asuntos a tocar son pertinentes a mis pacientes y a mi comunidad**
- **La evidencia de exposición a peligros ambientales en mi comunidad**
- **Mi interés generalizado en el tema**

VBI70

La ATSDR y El Departamento de Salud Pública y Medio Ambiente de Colorado preguntaron a médicos y enfermeras de la localidad sobre asuntos de salud ambiental para ayudarnos a preparar los programas educacionales de entrenamiento acerca de VBI70.

ATSDR
AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY

Training Doctors and Nurses About Environmental Health Issues

Toxicology Associates, a local medical office with experts in environmental medicine, is working to train local doctors and nurses about the arsenic and lead health issues related to the VBI-70 site.

VBI70

Health Clinics

La Clinica Tepayac
Eastside Family Health Center
Hyde Park Family Center
Globeville Family Health Center
Westside Health Center
Kaiser Permanente Skyline
Inner City Health Center
La Casa de Salute Family Center
Parkhill Family Health Center
Clinica Campesina Family Center
Concentra Medical Center
Apex Family Medicine
Chafee Heights Family Physicians
Denver Family Medicine Center
Planned Parenthood
Rocky Mountain Primary Care
Rocky Mountain Youth Medical
Rose Medical Center
Rose Pediatrics
Sage Family Practice
Stout Street Clinic
Caritas Clinic, St. Joseph's Hospital
Denver Rescue Mission
Children's Medical Center
Denver Health Medical Center
St. Anthony's Family Medicine Center/West
The Children's Hospital

School Nurses

Swansea Elementary
Harrington Elementary
Wyatt-Edison Charter
Annunciation
Pioneer Charter
Larandon Hall
Cole Middle
Mitchell Elementary
Northeast Montessori
Clayton Head Start
Columbine Elementary
Family Star Montessori
Gilpin Elementary
Manual High
Gilliam
Barrett Elementary
Union Baptist Excel
Whittier Elementary
Loyola Catholic
Stedman Elementary
Montessori Garfield

Is the clinic you go to for health care on this list?

If not, please add your clinic to the sheet on the table and we will contact them.

ATSDR
AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY

Educando a Médicos y Enfermeras sobre la Salud Ambiental

Toxicology Associates, una oficina médica local con expertos en la salud ambiental está trabajando para educar a los médicos y las enfermeras locales sobre el arsénico y el plomo y los asuntos de la salud relacionados con el sitio de VBI70.

Clínicas de Salud

La Clinica Tepayac
Eastside Family Health Center
Hyde Park Family Center
Globeville Family Health Center
Westside Health Center
Kaiser Permanente Skyline
Inner City Health Center
La Casa de Salute Family Center
Parkhill Family Health Center
Clinica Campesina Family Center
Concentra Medical Center
Apex Family Medicine
Chafee Heights Family Physicians
Denver Family Medicine Center
Planned Parenthood
Rocky Mountain Primary Care
Rocky Mountain Youth Medical
Rose Medical Center
Rose Pediatrics
Sage Family Practice
Stout Street Clinic
Caritas Clinic, St. Joseph's Hospital
Denver Rescue Mission
Children's Medical Center
Denver Health Medical Center
St. Anthony's Family Medicine Center/West
The Children's Hospital

Enfermeras Escolares

Swansea Elementary
Harrington Elementary
Wyatt-Edison Charter
Annunciation
Pioneer Charter
Larandon Hall
Cole Middle
Mitchell Elementary
Northeast Montessori
Clayton Head Start
Columbine Elementary
Family Star Montessori
Gilpin Elementary
Manual High
Gilliam
Barrett Elementary
Union Baptist Excel
Whittier Elementary
Loyola Catholic
Stedman Elementary
Montessori Garfield

VBI70

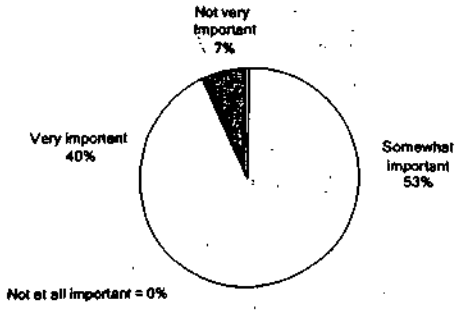
Está la clinica que le sirve a Ud. en esta lista?

Si no, por favor escriba el nombre de su clinica en la lista colocada en esta mesa y nosotros nos comunicaremos con esa clinica.

ATSDR
AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY

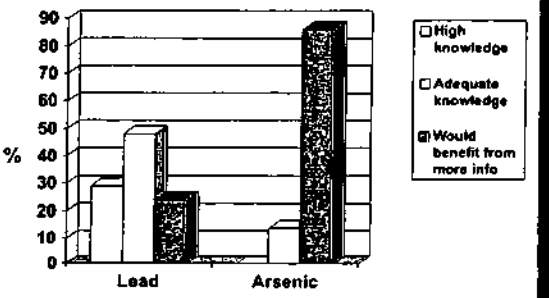
Responses of Doctors and Nurses About Environmental Health Issues

Importance of Environmental Health?



In your daily professional practice, how important is it for you to be informed about environmental health issues?

Rate Your Knowledge About...



How would you rate your current level of knowledge on the health effects of the following environmental health hazards? Very High, Adequate, or Would Benefit from More Information?

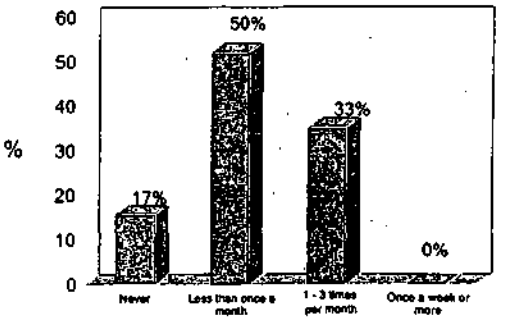
What Affects Your Patients the Most?

- **Air pollution**
- **Lead exposure**
- **Tobacco smoke**

What Topics Are You Interested In?

- **Industrial chemical toxicants**
- **Air pollution**
- **Folk remedies**
- **Lead and/or heavy metals**

How Often Do Patients Ask?



How frequently do patients ask you questions about the potential health effects of environmental or occupational exposure to chemicals or pollutants in the home, at work, or in the community?

What are the Five Reasons You would Participate in Training?

- **Issues addressed are relevant to my patients and the community**
- **Evidence of exposure to environmental hazards in my community**
- **My general interest in the topic**

VBI70

ATSDR and Colorado Department of Public Health and Environment asked local doctors and nurses about environmental health issues to help us plan educational training programs about VBI70.

ATSDR
AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY

What is the Environmental Health Intervention Project?

ATSDR's Environmental Health Intervention Project at VBI70 will

- **Strengthen the ability of the local health care system to recognize and provide follow-up services for environmental health concerns**
- **Provide a local environmental medical information resource for community health questions related to the VBI70 site**

What will the Environmental Health Intervention Project do?

- **Inform local doctors and nurses about VBI70 health issues**
- **Provide medical training to local doctors and nurses on arsenic and lead health effects, including the recognition and treatment of those effects**
- **Be a resource to answer medical questions related to VBI70 from both members of the community and their health care providers**

To achieve our goals, we are working with our local partner organization:

Toxicology Associates
2555 South Downing Street, Suite 260
Denver, CO 80210

Toxicology Associates has board-certified medical toxicologists who specialize in evaluation, diagnosis, and treatment of occupational and environmental related diseases.

ATSDR's Environmental Health Intervention Project does not provide medical care services. If you have a medical concern, visit your local doctor.

VBI70

For more information about upcoming meetings

Call Toxicology Associates at

303-765-3800
9:00 am to 4:00 pm

303-230-7932
4:00 pm to 8:00 pm

ATSDR
AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY

¿Qué es el Proyecto de Intervención de Salud Ambiental?

El Proyecto de Intervención de Salud Ambiental podrá

- **Capacitar a proveedores médicos de la localidad para mejor reconocer y solventar las preocupaciones sobre la salud ambiental**
- **Proveer un recurso comunitario para encontrar información médica sobre la salud ambiental en VBI70.**

¿Qué hará el Proyecto de Intervención de Salud Ambiental?

- **Informará a los médicos y las enfermeras en la localidad sobre asuntos de la salud ambiental en el sitio de VBI70.**
- **Proveerá adriestramiento para médicos y enfermeras locales sobre los efectos a la salud por la exposición al arsénico y el plomo y sobre el reconocimiento y tratamiento de esos efectos a la salud.**
- **Servirá como un recurso de información sobre la salud ambiental**

Para lograr nuestros propósitos, la ATSDR está trabajando con nuestra organización socia local:

Toxicology Associates
2555 South Downing Street, Suite 260
Denver, CO 80210

Toxicology Associates emplea toxicólogos médicos certificados que son especialistas en la evaluación, diagnosis y tratamiento de enfermedades ocupacionales y ambientales.

El Proyecto de Intervención de Salud Ambiental de la ATSDR no proporciona ni ofrece servicios médicos. Si Ud. tiene una preocupación por su salud, por favor consulte con su propio médico.

VBI70

For more information about upcoming meetings

Call Toxicology Associates at

303-765-3800
9:00 am to 4:00 pm

303-230-7932
4:00 pm to 8:00 pm

ATSDR
AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY

Soil Pica, Soil Ingestion and Health Outcome Health Investigation

Why are you doing a health study in my community?

Recent soil sample results from yards in the VBI70 area have shown high levels of arsenic in surface soil. Community members have expressed concern over exposure in children who eat and swallow soil. Working with the Colorado Department of Public Health and the University of Colorado Health Sciences Center (UCHSC), a health study plan was proposed to find out if children have soil pica behaviors and are at risk of exposure to arsenic and lead.

What is involved in the health study?

The health study will take a look at behaviors that are commonly associated with children who eat dirt. The health study will also identify those who have short term and long term arsenic and lead poisoning. Activities of the health study may include:

- **A community door-to-door census**
- **Urine arsenic testing in children**
- **Blood lead testing**
- **Soil exposure questionnaires to assess soil contact and soil ingestion behavior**
- **Symptoms survey to identify children who may have arsenic toxicity**
- **Public meetings to provide education materials concerning lead and arsenic and one-on-one consultations with health professionals**

What will the health study tell me about children who have soil pica behavior in my community?

The health study will look at the different ways children come in contact with soil and determine how often they eat dirt and swallow soil.

Who is involved in the health study?

The University of Colorado Health Sciences Center (UCHSC) in cooperation with the Colorado Department of Public Health and Environment (CDPHE) and community representatives.

Funding has been provided by ATSDR to the Colorado Department of Public Health and Environment (CDPHE). Funding for sample analysis will be paid for by the U.S. Environmental Protection Agency (EPA).

When will the health study begin?

Study activities are scheduled to begin in the Spring of 2002.

VBI70

How can I found out more information about the health study?

For more information, you may contact

Kristina Kaparich,
University of Colorado Health Sciences Center
303-315-7999

Margaret Schonbeck,
Project Manager
Colorado Department of Public Health and Environment
303-692-2636

Chris Poulet,
Regional Representative
ATSDR
303-312-7012

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AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY

Plomo en la tierra en el sitio de VB170

(Swansea, Elyria, Cole, Clayton, y el suroeste de Globeville)

VB170

La Tierra y la Salud

La ATSDR descubrió que el nivel de plomo en algunos de los jardines y patios puede constituir una preocupación para la salud de algunos niños.

¿De dónde proviene el plomo?

- Pintura para el hogar elaborada antes de 1976,
- Esmalte (pintura) de algunos trastos o cerámica
- la tierra
- agua potable.

Cuando un niño se mete cosas a la boca, puede introducir a su cuerpo tierra que contiene plomo.

Posibles Problemas de Salud Causados por el Plomo

Cuando los niños tienen altos niveles de plomo en sus cuerpos, es posible que padezcan de

- problemas auditivos,
- problemas de aprendizaje
- afecta su nivel intelectual
- demoras en el desarrollo

ATSDR
AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY

Plomo en la tierra en el sitio de VBI70

Plomo en su jardín o patio

La EPA (Agencia para la Protección del Medio Ambiente de los EE.UU.) ha analizado tierra de los patios y jardines en la zona de Swansea, Elyria, Cole, Clayton, y el suroeste de Globeville para averiguar si allí hay niveles elevados de plomo.

La Tierra y la Salud

Médicos y científicos de la ATSDR (Agencia de Sustancias Tóxicas y Registro de Enfermedades) han examinado los resultados de las muestras de tierra recolectadas en esta zona para determinar si el nivel de plomo es suficientemente alto para causar problemas a la salud para la gente que vive en esta zona. La ATSDR descubrió que el nivel de plomo en algunos patios puede constituir una preocupación para la salud de algunos niños y adultos.

¿De dónde proviene el plomo?

El plomo puede provenir de la pintura para las casas hecha antes de 1976, el esmalte (pintura) de algunos trastos y cerámicas, la tierra y hasta el agua potable.

¿Cómo se puede introducir plomo al cuerpo?

La tierra que contiene plomo puede introducirse al cuerpo a través de varias maneras. Cuando los niños juegan a veces tocan cosas que están cubiertas por tierra o polvo, y luego meten las manos u otros objetos en la boca. Cuando esto sucede, pequeñas cantidades de plomo también entran al cuerpo, junto con la tierra o el polvo. El tragar estas pequeñas cantidades de tierra con plomo normalmente no causa problemas de la salud. Pero si la cantidad de plomo en la tierra es muy alta, los niños pueden enfermarse.

Posibles Problemas de Salud Causadas por el Plomo

Cuando los niños tienen altos niveles de plomo en sus cuerpos, es posible que padezcan de problemas auditivos, niveles intelectuales bajos, problemas de aprendizaje y demoras en el desarrollo.

¿Dónde puedo conseguir mayor información sobre la Exposición al Plomo en la tierra?

Si usted cree que su hijo(a) ha estado expuesto al plomo contacte a:

Mishelle Macias
Departamento de Salud y Medio
Ambiente de Colorado
303-692-2622
Gene Hook
Ciudad y el Condado de Denver
770-865-5452

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Para mayor información acerca del plomo en la zona VBI70 contacte a:

David Mellard
ATSDR, Atlanta
1-888-42-ATSDR
404-498-0443

Chris Poulet
ATSDR, Denver
303-312-7012

ATSDR
AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY

Lead in Soil

(Swansea, Elyria, Cole, Clayton, and southwest Globeville)

VBI70

Soil and Your Health

ATSDR found that the amount of lead in some yards might be a health concern for some children.

Where Does Lead Come From?

- **household paint made before 1976**
- **Glaze (paint) on some pottery or dishes**
- **soil**
- **drinking water**

Soil that contains lead can get into children's bodies when they put things in their mouths.

Possible Health Problems From Lead

When children have high levels of lead in their bodies, they might have

- **hearing problems**
- **learning problems**
- **lowered intelligence scores**
- **delays in development**

ATSDR
AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY

Lead in Soil

Lead in Your Yard

The U.S. Environmental Protection Agency (EPA) has tested soil/dirt from yards in the Swansea, Elyria, Cole, Clayton, and southwest Globeville neighborhoods to see if the soil/dirt contains high levels of lead.

Soil and Your Health

Doctors and scientists from the Agency for Toxic Substances and Disease Registry (ATSDR) looked at test results from soil collected in the neighborhoods to see whether the amount of lead is high enough to cause health problems for people who live in the area. ATSDR found that the amount of lead in some yards is at levels that are of concern for some children.

Where Does Lead Come From?

Lead can come from household paint made before 1978, the glaze (paint) on some pottery or dishes, soil, and even drinking water.

How Can Lead Get into the Body?

Soil that contains lead can get into the body in many ways. When children play, they sometimes touch things that have dirt or dust on them and then put their hands or other items into their mouths. When this happens, small amounts of lead can get into their bodies along with the dirt or dust.

Swallowing small amounts of soil with lead usually will not cause health problems. But if the amount of lead in soil is too high, children might become sick.

Possible Health Problems From Lead

When children have high levels of lead in their bodies, they might have health problems such as hearing problems, lowered intelligence scores, learning problems, and delays in development.

Where Can I Get More Information About Exposure to Lead in Soil?

If you think your child has been exposed to lead, you may contact:

Mishelle Macias
Colorado Department of Health and Environment
303-692-2622
or
Gene Hook
City and County of Denver
720-865-5452

VBI70

Where Can I Get More Information About Lead at the VBI70 Site, Please Contact:

David Mellard
ATSDR, Atlanta
1-888-42 ATSDR
or
1-404-498-0443

Chris Poulet
ATSDR, Denver
303-312-7012

ATSDR
AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY

Arsenic in Soil

(Swansea, Elyria, Cole, Clayton, and southwest Globeville)

VB170

Soil and Your Health

ATSDR found that the amount of arsenic in some yards might be a health concern for some children and adults.

Soil that contains arsenic can get into your body

- **while playing,**
- **while gardening, and**
- **while working in your yard.**

Adults and Arsenic

People who grew up and as adults still live in homes with yards with high levels of arsenic might have a higher chance of getting cancer.

Soil Pica

Some preschool children eat large amounts of soil (about 1 teaspoon) while playing and exploring their world. This is called soil-pica behavior.

Soil-pica behavior is especially a concern for children who live at houses with high arsenic levels in soil. After eating large amounts of soil with high levels of arsenic, these children could have health problems, such as:

- **nausea or upset stomach**
- **vomiting**
- **swelling of the face**
- **stomach cramps**
- **diarrhea**
- **headaches**

ATSDR
AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY

Summary of the Public Health Assessment for the VBI70 Site

Background

The Vasquez Boulevard and I-70 (VBI70) Superfund site is part of the National Priorities List (NPL) of hazardous waste sites. The Agency for Toxic Substances and Disease Registry (ATSDR), a public health agency of the U.S. Department of Health and Human Services, is required to conduct public health assessments on NPL sites.

The VBI70 site includes the northeast Denver neighborhoods of Swansea, Elyria, Cole, Clayton, and southwest Globeville.

The U.S. Environmental Protection Agency (EPA) has taken soil samples from about 3,000 residential properties in the VBI70 area and tested them for arsenic and lead. Test results show that some properties have high levels of arsenic and lead in soil. ATSDR's public health assessment describes the health implications from arsenic and lead in soil.

Findings About Arsenic in Soil

Children: Some preschool children eat large amounts of soil (about 1 teaspoon) while playing and exploring their world. This is called soil-pica behavior.

ATSDR is concerned that about 650 properties sampled so far have arsenic levels in soil that might pose a **public health hazard** for preschool children who have soil-pica behavior and who eat unusually large amounts of soil. Arsenic in soil might make some preschool children with soil-pica behavior sick.

On the basis of demographic information, about 300 preschool children live in these 650 properties and somewhere between 12 and 60 of these children might have soil-pica behavior sometime during their preschool years.

Adults: Soil arsenic levels and cancer are a concern for people who grew up in a house that had high levels of arsenic in soil and who continued to live in the house as adults. These people could have a higher chance of getting certain kinds of cancer. EPA has identified about 260 properties where the increased risk of cancer is unacceptable.

Findings About Lead in Soil

Some properties in the VBI70 area have high levels of lead in soil that are a health hazard to some preschool children living at those properties. Exposure to lead-contaminated soil might increase children's blood lead levels, causing harmful effects in children.

Recommendations

ATSDR made several recommendations to local, state, and federal agencies to address public health issues about arsenic and lead in soil. ATSDR recommended that EPA reduce exposure to arsenic and lead in properties where soil arsenic and lead levels are a health concern. ATSDR recommended that EPA collect soil samples from the remaining properties in the neighborhood and from neighborhoods outside the VBI70 site.

ATSDR's Activities

ATSDR is conducting an environmental health intervention project to train local health care providers about arsenic and lead. ATSDR is also working with the Colorado Department of Public Health and Environment and the University of Colorado to conduct a health investigation into soil-pica behavior at the VBI70 site. ATSDR is conducting health education with these activities and with the release of the public health assessment.

VBI70

Where Can I Get More Information About ATSDR's Activities?

For more information, call
David Mellard
ATSDR, Atlanta
1-888-42 ATSDR
or
1-404-498-0443

Chris Poulet
ATSDR, Denver
303-312-7012

ATSDR
AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY

Arsenic in Soil

VBI70

Arsenic in Your Yard

The U.S. Environmental Protection Agency (EPA) has tested soil/dirt from yards in the Swansea, Elyria, Cole, Clayton, and southwest Globeville neighborhoods to see if they contain high levels of arsenic.

Soil and Your Health

Doctors and scientists from the Agency for Toxic Substances and Disease Registry (ATSDR) have looked at test results from soil collected in the neighborhoods to see whether the amount of arsenic is high enough to cause health problems for people who live in the area. ATSDR found that the amount of arsenic in some yards might be a health concern for some children and adults.

How Can Arsenic Get Into the Body?

Soil that contains arsenic can get into the body in many ways. When children play and when adults work in the garden, we sometimes touch things that have dirt or dust on them and then put our hands or other items into our mouths. When this happens, small amounts of arsenic can get into our bodies along with the dirt or dust.

Swallowing these small amounts of soil with arsenic usually will not cause health problems. But if arsenic in soil is too high, children and adults might become sick.

Adults and Arsenic

Arsenic levels and cancer are a concern for people who grew up in a house with high levels of arsenic in soil and who continued to live in the house as adults. These people could have a higher chance of getting certain kinds of cancer, such as skin cancer and cancer of the lung, bladder, kidney, and liver.

Soil Pica

Some preschool children eat large amounts of soil (about 1 teaspoon) while playing and exploring their world. This is called soil-pica behavior.

Soil-pica behavior is especially a concern for children who live in areas with high arsenic levels in soil. After eating large amounts of soil with high levels of arsenic, these children could have health problems such as nausea or upset stomach, stomach cramps, vomiting, diarrhea, swelling of the face, and headaches.

You Can Protect Yourself

Here are a few things that you can do to protect your family from arsenic in the soil. These tips are especially important if you live in an area with high arsenic levels in soil. These tips are good steps for everyone to follow.

- Watch your preschool children when they are playing outside. Keep them from eating dirt or mud and from putting toys in their mouths.
- Talk to older children about the possible danger of eating soil.
- Encourage preschool children to play in areas of the yard that are covered by grass.
- Talk to adults about not eating soil or mud from their yards.

Where Can I Get More Information About Exposure to Arsenic in Soil and Soil-Pica Behavior?

For more information about arsenic and soil-pica behavior at the VBI70 site, contact:

David Mellard
ATSDR, Atlanta
1-888-42-ATSDR
or
1-404-498-0443

Chris Poulet
ATSDR, Denver
303-312-7012

ATSDR
AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY

Arsénico en la tierra en el sitio de VBI70

Arsénico en su jardín o patio

La EPA (Agencia para la Protección del Medio Ambiente de los EEUU) ha analizado tierra de los patios y jardines en la zona de Swansea, Elyria, Cole, Clayton, y el suroeste de Globeville para averiguar si hay niveles elevados de arsénico.

La Tierra y la Salud

Médicos y científicos de la ATSDR (Agencia de Sustancias Tóxicas y Registro de Enfermedades) han examinado los resultados de las muestras de tierra recolectadas de esta zona para determinar si el nivel de arsénico es suficientemente alto para causar problemas de salud para la gente que vive en esta zona. La ATSDR descubrió que el nivel de arsénico en algunos patios puede constituir una preocupación para la salud en algunos niños y adultos.

¿Como se puede introducir Arsénico al cuerpo?

La tierra que contiene arsénico puede introducirse al cuerpo a través de varias maneras. Cuando los niños juegan y los adultos trabajan en el jardín, a veces tocan cosas que están cubiertas por tierra o polvo y luego meten las manos u otros objetos en la boca. Cuando esto sucede, pequeñas cantidades de arsénico también entran al cuerpo, junto con la tierra o el polvo.

El tragar estas pequeñas cantidades de tierra con arsénico normalmente no causa problemas de la salud. Pero si el arsénico en la tierra es muy alto, tanto los niños como los adultos pueden enfermarse.

Los Adultos y el Arsénico

Los niveles de arsénico y el cáncer representan una preocupación en las personas que se criaron en una casa donde hay altos niveles de arsénico en la tierra y quienes siguen viviendo en la casa ya siendo adultos. Estas personas pueden tener más posibilidad de tener ciertos tipos de cáncer, tales como cáncer da la piel, del pulmón, de la vejiga, del riñón o del hígado.

Pica

Algunos niños de edad preescolar comen grandes cantidades de tierra (aproximadamente 1 cucharadita) al jugar y explorar su mundo. Este comportamiento se denomina "pica".

El hábito de pica preocupa especialmente en los niños que viven en casas donde hay altos niveles de arsénico en la tierra. Después de ingerir grandes cantidades de tierra con niveles de arsénico elevados, estos niños pueden padecer de problemas de la salud, incluyendo nausea o malestar estomacal, retorcijones, vómitos, diarrea, inflamación de la cara, y dolores de cabeza.

Usted Puede Protegerse

A continuación hay algunas medidas que usted puede realizar para proteger a su familia contra del arsénico en la tierra. Sería bueno que todos cumplieran con los siguientes consejos, pero son especialmente importantes si vive en una zona donde hay altos niveles de arsénico en la tierra.

VBI70

¿De dónde puedo conseguir mayor información sobre la Exposición al Arsénico en la tierra y sobre pica?

Para más información sobre arsénico y geofagia en la ubicación VBI70, comuníquese con:

David Mellard
ATSDR, Atlanta
1-888-42-ATSDR
or
1-404-498-0443

Chris Poulet
ATSDR, Denver
303-312-7012

ATSDR
AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY

Resumen de la evaluación de la Salud Pública en el sitio de VBI70

VBI70

Antecedentes

El sitio del Superfondo ubicada por el Vasquez Boulevard y la I-70 (VBI70) forma parte de la Lista de Prioridades Nacionales (NPL) de zonas con deshechos peligrosos. A la Agencia de Sustancias Tóxicas y Registro de Enfermedades (ATSDR), una agencia de salud pública del Departamento de la Salud y Servicios Humanos de EE.UU. se le requiere realizar evaluaciones de la salud pública en los sitios designados de la NPL.

El sitio de VBI70 incluye las siguientes partes del noreste de Denver: Swansea, Elyria, Cole, Clayton, y el suroeste de Globeville.

La Agencia para la Protección del Medio Ambiente de los EE.UU. (EPA) ha tomado muestras de tierra en aproximadamente 3,000 propiedades residenciales en el área de VBI70 y las ha analizado para buscar arsénico y plomo. Los resultados de las pruebas demuestran que algunas de las propiedades tienen altos niveles de arsénico y plomo en la tierra. La evaluación de salud pública realizada por la ATSDR describe las consecuencias a la salud del arsénico y del plomo en el tierra.

Resultados del arsénico en la tierra

Los niños: Algunos niños de edad preescolar comen grandes cantidades de tierra (cerca de 1 cucharadita) mientras juegan y exploran su mundo. A este comportamiento se llama pica.

La ATSDR le preocupa que 650 propiedades evaluadas hasta ahora, presentan niveles de arsénico en la tierra tan elevados que pueden convertirse en un **peligro a la salud pública** para los niños de edad preescolar que tienen pica y que comen inusuales y grandes cantidades de tierra. El arsénico en la tierra puede enfermar a algunos de los niños de edad preescolar con el hábito de pica.

Con base a la información demográfica, cerca de 300 niños de edad preescolar viven en estas 650 propiedades, y alrededor de 12 a 60 de estos niños pueden tener el hábito de pica durante sus años de preescolar.

Adultos: Los niveles de arsénico en la tierra y el cáncer constituyen una preocupación para la gente que creció en una casa con altos niveles de arsénico en la tierra y que continúen viviendo como adultos en estas casas. Estas personas tienen un alto riesgo de contraer ciertos tipos de cáncer. La EPA ha identificado cerca de 260 propiedades en las que el riesgo de cáncer ha aumentado a niveles inaceptables.

Resultados del plomo en la tierra

Algunas propiedades en el área de VBI70 tienen altos niveles de plomo en la tierra que son un peligro para la salud en algunos niños de edades preescolares que viven en estas propiedades. La exposición a la tierra contaminada con plomo puede incrementar el nivel de plomo en la sangre de los niños, provocando efectos dañinos en los niños.

Recomendaciones

La ATSDR planteó varias recomendaciones a las agencias locales, estatales, y federales para tratar de solventar los problemas de salud pública acerca del arsénico y el plomo en la tierra. La ATSDR recomendó que la EPA redujera la exposición al arsénico y al plomo en propiedades donde el nivel de plomo y arsénico en la tierra constituya una preocupación a la salud. La ATSDR recomendó que la EPA recolectara muestras de tierra de las propiedades restantes a dentro de la zona VB170, y de algunas áreas residenciales afuera de la misma.

¿Dónde puedo conseguir más información acerca de las actividades de la ATSDR?

Para más información llame a

David Mellard (gratis al 1-888-42-ATSDR, extensión 0443)

Chris Poulet, representante regional de ATSDR en Denver (303-312-7012).

ATSDR
AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY

Actividades de la ATSDR

La ATSDR está coordinando un proyecto de intervención de salud ambiental para capacitar a proveedores médicos de la localidad acerca del arsénico y del plomo. La ATSDR también está trabajando con el Departamento de Salud Pública y Medio Ambiente de Colorado y con la Universidad de Colorado para coordinar una investigación sanitaria acerca de la pica en la zona VBI70. La ATSDR está dirigiendo educación de salud con estas actividades y con la publicación de la evaluación de salud pública.

ATSDR
AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY

VBI70 Soil Pica, Soil Ingestion and Health Outcome Health Investigation

VBI70

The Colorado Department of Public Health and Environment (CDPHE) and the University of Colorado Health Sciences Center (UCHSC) in cooperation with the Agency for Toxic Substances and Disease Registry (ASTDR) will conduct a health study in the VBI70 community. The health study will determine if eating dirt and swallowing soil (soil-pica behaviors) are possible sources of arsenic and lead exposure in children. The study will also identify households that have been exposed to arsenic and lead contaminants. Activities are scheduled to begin in the Spring of 2002.

For more information you may contact:

Kristina Kaparich
University of Colorado Health Sciences Center
303-315-7999

Margaret Schonbeck, Project Manager
Colorado Department of Public Health and Environment
303-692-2636

Chris Poulet, Regional Representative
ATSDR
303-312-7012

ATSDR
AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY

VBI70 Pica, Investigación de Salud sobre la Ingestión de tierra y las Consecuencias para la Salud

VBI70

La Agencia de Sustancias Tóxicas y Registro de Enfermedades (ATSDR) en cooperación con El Departamento de Salud Pública y Medio Ambiente de Colorado (CDPHE) y el Centro de Ciencias de la Salud de la Universidad de Colorado (UCHSC) dirigirán un estudio de salud en la comunidad VBI70. El estudio de salud determinará si el comer e ingerir tierra (comportamiento pica o geofagia) son posibles causas de exposición a niños al arsénico y al plomo. El estudio identificará los hogares que han sido expuestos a contaminantes de arsénico y de plomo. Se ha planificado el inicio de las actividades en la primavera del 2002.

Para mayor información comuníquese con:

Kristina Kaparich
Centro de Ciencias de la Salud de la Universidad de Colorado
(University of Colorado Health Sciences Center)
303-315-7999

Margaret Schonbeck, Directora del Proyecto
Departamento de Salud Pública y Medio Ambiente de Colorado
(Colorado Department of Public Health and Environment)
303-692-2636

Chris Poulet, Representante Regional
ATSDR
303-312-7012

ATSDR
AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY

CEASE

Clayton, Elyria, Swansea y el Suroeste de Globeville

¿Quiénes somos?

Somos residentes de las comunidades que son parte de Vasquez Boulevard y Interstate 70 (VBI70), un sitio del Superfondo.

Miembros:
Anthony Thomas y Joan Hooker, de Clayton
Lorraine Granado y Mike Maes de Elyria/Swansea
Antonio Montoya de Globeville

¿Qué es lo que hacemos?

Hemos representado y trabajado por la salud y interés de la gente de la comunidad entre el proceso del Superfondo.

¿ Cómo hacemos esto?

Nosotros participamos en reuniones de trabajo mensuales con la EPA, la ATSDR, Denver Salud del Medioambiente, Colorado Departamento de Salud Público y de Medioambiente, Asarco y otros.

Nosotros hablamos en defensa por lo que es importante para la comunidad como demandando niveles de limpieza que protege la salud de la comunidad.

Nosotros contratamos a el Dr. michael Kosnett, un experto conocido nacionalmente en el arsénico y el plomo y por sus expertos consejos de cosas de salud.

Nosotros hemos ayudado en organizar reuniones para la comunidad, compartir información a través de la hoja informativa de la comunidad y repartiendo folletos de puerta-a-puerta.

Nosotros nos reunimos mensualmente y los residentes son invitados a acompañarnos.

Si desea venir a una reunión, o gustaria mas informacón,
Favor de llamar a
Antonia Montoya al 303-292-3203.

VBI70

CEASE Members

Mike Maes
CEASE President
Elyria/Swansea
Community

Anthony Thomas
CEASE
Vice President
Clayton
Community

Joan Hooker
CEASE Secretary
Clayton
Community

Lorraine Granado
CEASE Treasurer
Elyria/Swansea
Community

Antonia Montoya
CEASE
Site Coordinator
Southwest
Globeville
Community

ATSDR
AGENCY FOR TOXIC SUBSTANCES
AND DISEASE REGISTRY

CEASE

Clayton, Elyria, Swansea, and Southwest Globeville

Who are we?

We are residents who live in the neighborhoods that are part of the Vasquez Boulevard/Interstate-70 (VBI70) Superfund site.

Our group includes residents of Cole, Elyria, Swansea, and southwest Globeville.

What do we do?

We represented and worked for the health and interests of people in our communities throughout the Superfund process.

How do we do this?

We participate in monthly workgroup meetings with the U.S. Environmental Protection Agency (EPA), Agency for Toxic Substances and Disease Registry (ATSDR), Colorado Department of Public Health and the Environment (CDPHE), Asarco, and others.

We speak for what is important to the community, such as

- **demanding soil clean-up levels that protect community health;**
- **hiring Dr. Michael Kosnett, who is a national expert on arsenic and lead, to give us advice on health issues;**
- **helping to organize community education forums for our residents;**
- **working with ATSDR to plan community health education projects;**
- **sharing information with residents through community forums, newsletters, and flyers that are delivered door to door.**

We meet monthly and residents are invited To join us.

If you want to come to a meeting or would like more information, please call Antonia Montoya at 303-292-3203.

VBI70

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ATSDR
AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY

CEASE

Clayton, Elyria, Swansea y el Suroeste de Globeville

¿Qué tipo de limpienza estamos peleando?

EPA...
La Agencia para la Protección Ambiental (EPA) quiere remover tierra de las casas con plomo con 540 partes por millón (ppm) o mas.

CEASE...
Nosotros queremos que las yardas o patios sean limpiadas a 400 partes por millón para plomo, ya que es el nivel de examen nacional para la salud.

EPA...
EPA removerá tierra con arsénico con 128 partes por millón.

CEASE...
Esta de acuerdo ya que 128 partes por millón es aceptable.

EPA...
Propone una programa de educación de salud pública por 10 años o mas que hará que los padres se hagan responsables por estar seguros de que sus niños sean retirados de exposición a tierra contaminada. La EPA solo limpiará las yardas que tengan 540 ppm de plomo or mas.

CEASE...
CEASE quiere EPA limpie las yardas con 400 partes por millón de plomo. Nosotros estamos de acuerdo de que usen algo del dinero para educación de salud durante los anos que la tierra se esta removiendo.

Quitando el plomo y arsénico en removiendo la tierra es una solución permanente. Educación de salud es una manera temporalmente para ayudar a la gente en protegerse mientras están removiendo la tierra.

¿Qué sigue?

Nosotros vamos a escribir comentarios a la EPA sobre sus planes de propuestos de limpieza. Si Ud. gusta ver nuestros comentarios al respeto, favor de llamar a *Antonia Montoya al 303-292-3203.*

Nosotros estamos trabajando con la Agencia de Sustancias Tóxicas y Registro de Enfermedades (ATSDR) para planear estudios de salud esta primavera y verano 2002. Los estudios ayudarán a identificar niños que pueden estar comiendo tierra con arsénico y pueden resultar enfermos.

Nosotros vamos a continuar en participando en reuniones de grupos trabajando con la EPA, la ATSDR, el Colorado Departamento de Salud y en caulquier otras reuniones de este sitio.

Nosotros veremos el proceso de limpieza de cuando empieza a cuando se acaba.

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ATSDR
AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY

RENOVATING your home SAFELY

lead paint danger

Homes built before 1978 may contain lead paint. Renovation or repair work on these homes can create lead dust, fumes, and debris. This may cause lead poisoning in children and adults.

Children under the age of six are at the highest risk for lead poisoning. In young children, too much lead in the body can cause serious harm to the brain, kidneys, nervous system, and red blood cells. Even small amounts of lead can cause learning and behavioral problems. Lead can also harm a child before birth.

High lead levels in adults can cause health problems including high blood pressure, headaches, memory and concentration problems, kidney damage, mood changes, sleep problems and muscle or joint pain.

protect your family or tenants from lead poisoning during renovation work

People who are not doing the work should not be in the house. Children and pregnant or nursing women especially, should not go in the work area until after it has been properly cleaned. Keep pets away from the work area, too.

If you hire other people to do renovation work, they should understand that this work can cause lead poisoning. They should agree to protect your family or tenants from lead poisoning by following the tips in this brochure and cleaning properly after the work is done.

Renovating and deleading: the differences you should know

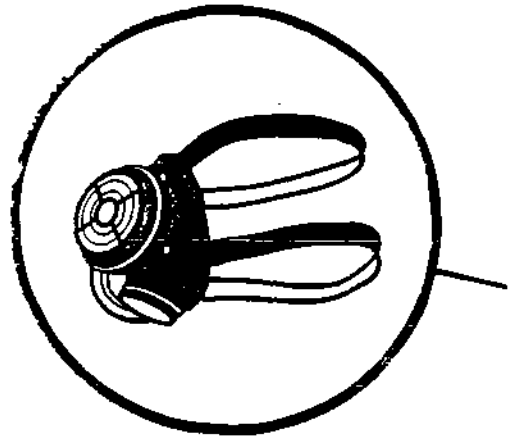
Renovation is work done to repair, improve, remodel, or do other work on the home. This work is not done to achieve compliance with the Lead Law.

Deleading is work done to remove or cover surfaces or other material known, suspected, or assumed to contain dangerous levels of lead. The purpose of this deleading work, in whole or in part, is done to achieve compliance with the Lead Law.

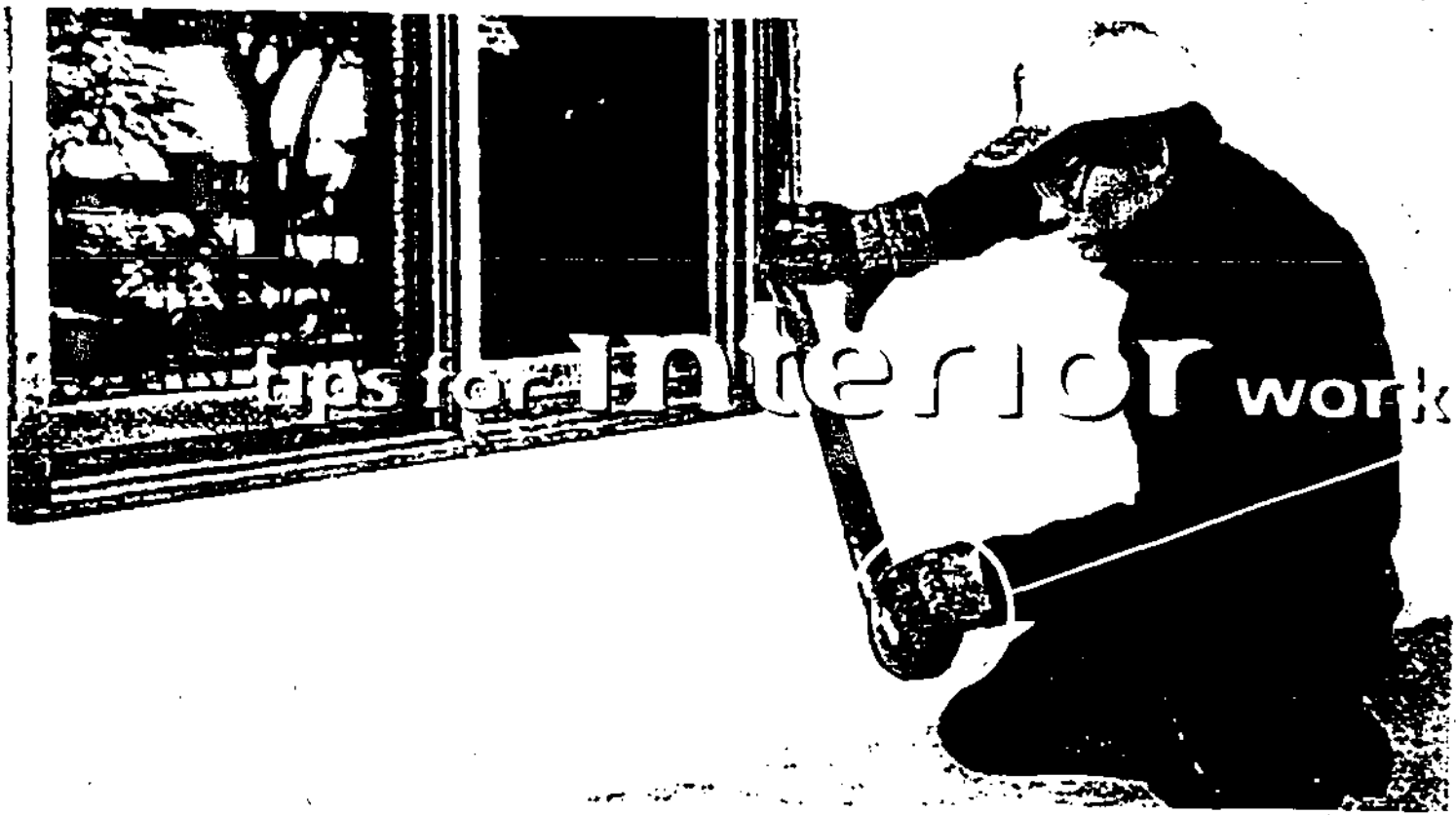
EQUIPPED WITH HEPA CARTRIDGE

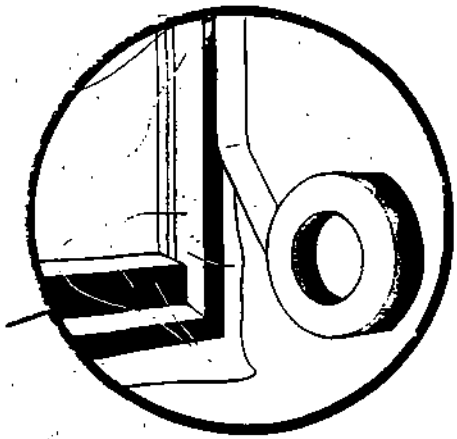
Lead is most hazardous in dust form. You should be concerned about lead paint hazards if you will be disturbing lead painted surfaces. Work that disturbs lead paint includes removing paint, sanding, patching, scraping, or tearing down walls. It also includes removing or replacing windows, baseboards, doors, plumbing fixtures, heating and ventilation ducts, or electrical systems. Assume that all paint is lead paint unless you know that it does not contain lead. Federal and state law requires anyone doing the work to follow these safety guidelines:

- No one less than 18 years of age can do work that disturbs lead paint
- Wear a respirator which is NIOSH/MSHA approved and equipped with a HEPA cartridge. (The cartridges are usually purple and say HEPA or VEPA on them.) A paper mask will not protect you against lead dust or fumes.
- Wear safety goggles and gloves
- Do not eat, drink, chew gum or tobacco, or smoke in work areas



safety guidelines


tips for interior work

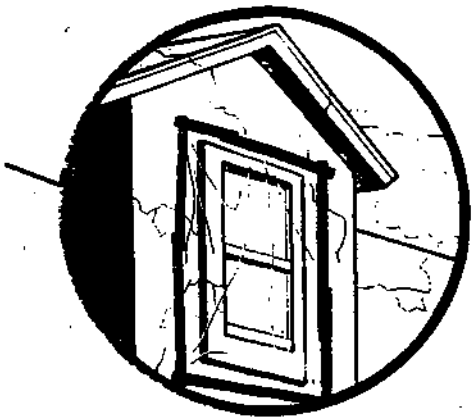


TO SEAL HOUSE WITH HEAVY PLASTIC

- Work in one room at a time. Seal it off from the rest of the house with plastic sheeting. Close doors/windows and tape heavy plastic around them. Tape heavy plastic over heating ducts, vents and grates, and shut down ventilation systems.
- Protect all food, appliances, utensils, furniture, personal items, bedding, drapes, toys, and clothing from dust. Remove them from the work area, or cover/bag them in heavy plastic and seal tightly.
- Cover floors and carpets with heavy plastic and seal the edges with tape.
- Place a damp floor mat outside the door to the work area to wipe off dust from the bottom of shoes.
- Do not walk in and out of the work area often. Have everything you need before you start working.

tips for exterior work

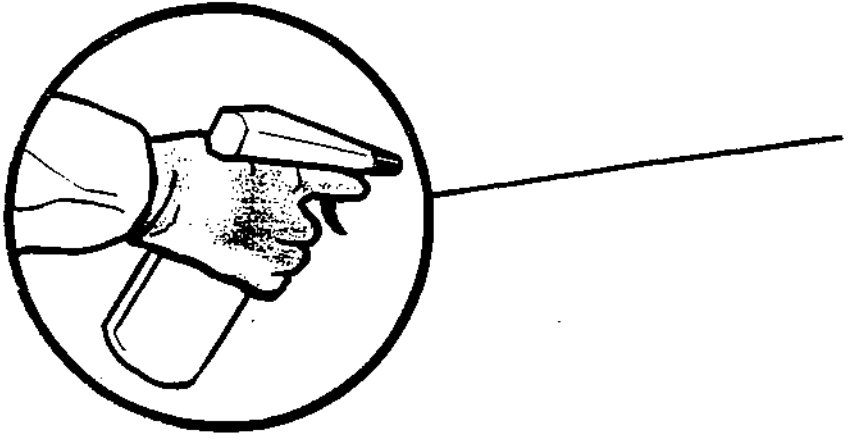
- Tape a drop cloth or tarp to the base of the building and hold it down with something heavy. It should extend far enough out from the building to catch any falling debris.
- Cover vegetable gardens and play areas with tarps or dropcloths. This will prevent lead from getting into the soil.
- Move or cover sandboxes, play equipment, and outdoor furniture.
- Close windows (including storms), doors, and vents so dust cannot enter the home. Cover them with plastic and seal the edges with tape if they are not airtight.
- Remove work clothes and shoes before entering the home.
- Do not work on windy days to prevent paint chips and debris from spreading into other areas.
- Keep children and pets away from the work area.
- Avoid the use of power sanders and heat guns.
- Contact your local board of health for the local regulations you should be following.



SEAL THE EDGES AIRTIGHT WITH TAPE

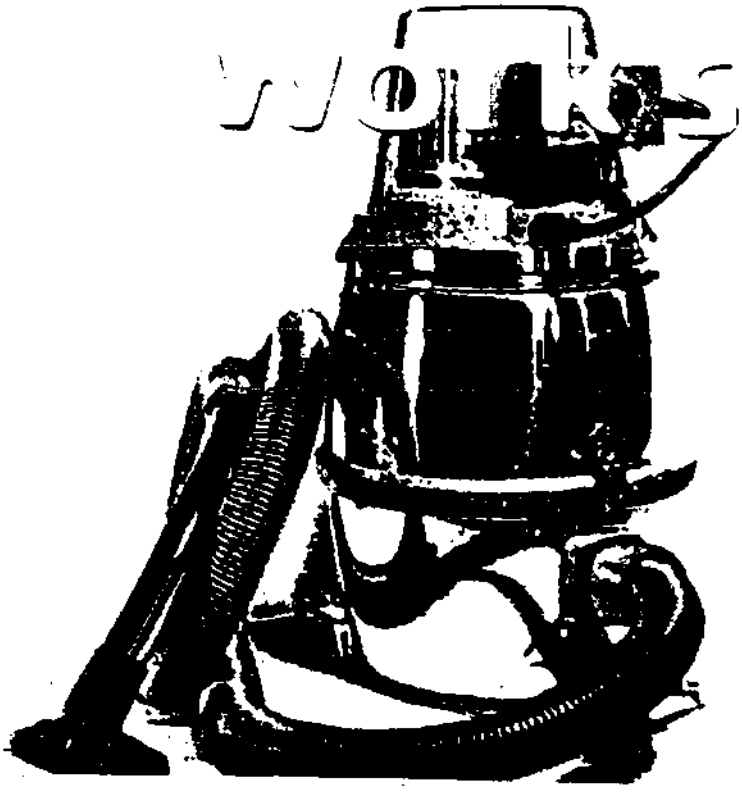
- Do the work while the home is vacant
- Wet-mist painted areas with a spray bottle or hose before working on them to reduce dust
- Wash hands before eating, drinking, or smoking

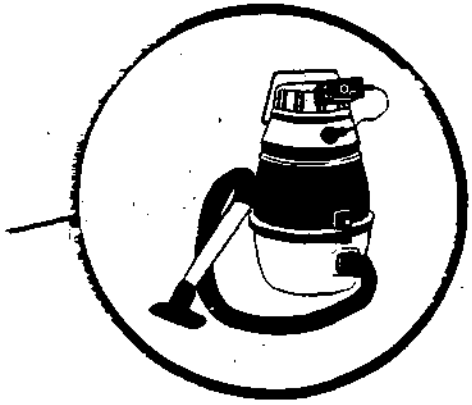
TO WET-MIST SURFACES



additional safety tips

workshop cleanup tips





EQUIPPED WITH HEPA FILTER

- Completely clean work areas at the end of each day. Repeat the full cleanup 24 hours after all the work has been done. This gives the dust time to settle.
- Vacuum floors and other surfaces with a HEPA filtered vacuum only. Do not use household vacuums. They spread lead dust into the air. To find out where you can rent a HEPA vacuum, call **1-800-532-9571**.
- Wet wash all surfaces with tri-sodium phosphate (TSP) or an automatic dishwasher detergent high in phosphate. Most hardware stores sell TSP.
- Clean all tools and equipment with tri-sodium phosphate (TSP) or vacuum with a HEPA vacuum before taking them out of the work area.
- Collect all debris at the end of each day. Double bag it in heavy plastic bags and throw it out with the regular trash. Store it safely until it can be disposed (Contact the Department of Environmental Protection for more information **617-292-5838**).

personal

- Change your work clothes and shoes before you leave the work site.
- Shower and wash your hair as soon as possible after you are done working.
- Wash your work clothes separately from other clothes.

Do not use these methods:

Torch or flame burning
Dry abrasive blasting
Potassium or sodium hydroxide solutions
Power sanders
Methylene chloride

case studys

Renovation project poisons child

A young couple about to have their first child decided that they wanted to redo a bedroom in their home for the baby. They wanted this room to be very special, so they completely remodeled it. They patched and repainted the walls, and enlarged the closet. They even scraped all the old paint off the window and door frames to return the wood to its original condition. They were almost finished with the room when the baby was born.

By the time their daughter had her first lead test at nine months of age, she already had a high lead level. The nurse at the clinic thought the high lead level might have been from all the dust created when they were working on the baby's room. She suggested that they have a lead inspection done. The inspector found that most of the paint in their home was lead paint. The lead dust created during the remodeling project was never properly cleaned up and caused the child to be lead poisoned. The mother may also have inhaled lead dust while she was working before the baby was even born. This may have caused some of the lead in the baby's system, too.

for more

on lead poisoning, inspections, or HEPA vacuum rentals contact:

Massachusetts Department of Public Health
Childhood Lead Poisoning Prevention Program (CLPPP)

1-800-532-9571

www.state.ma.us/dph/clppp

Printed on recycled paper.

February 1998

United States Environmental Protection Agency
Office of Pollution Prevention and Toxics

EPA 747-K-97-001
September 1997

EPA

Reducing Lead Hazards When Remodeling Your Home

The **U.S. Environmental Protection Agency** is concerned about homeowners and building professionals who may be exposed to lead as a result of remodeling or renovation projects.

The purpose of this pamphlet is to help reduce lead exposure when conducting home renovation and remodeling activities. This pamphlet will be updated as new information about lead hazard reduction becomes available.

State Lead Program Contacts

Some cities and states have their own rules for lead-based paint activities. Check with your State agency (listed below) to see if state or local laws apply to you. Most state agencies can also provide information on finding a lead abatement firm in your area, and on possible sources of financial aid for reducing lead hazards.

Alabama	(205) 242-5661	**Montana**	(406) 444-3671
Alaska	(907) 465-5152	**Nebraska**	(402) 471-2451
Arkansas	(501) 661-2534	**Nevada**	(702) 687-6615
Arizona	(602) 542-7307	**New Hampshire**	(603) 271-4507
California	(510) 450-2424	**New Jersey**	(609) 633-2043
Colorado	(303) 692-3012	**New Mexico**	(505) 841-8024
Connecticut	(203) 566-5808	**New York**	(800) 458-1158
Washington, D.C.	(202) 727-9850	**North Carolina**	(919) 715-3293
Delaware	(302) 739-4735	**North Dakota**	(701) 328-5188
Florida	(904) 488-3385	**Ohio**	(614) 466-1450
Georgia	(404) 657-6514	**Oklahoma**	(405) 271-5220
Hawaii	(808) 832-5860	**Oregon**	(503) 248-5240
Idaho	(208) 332-5544	**Pennsylvania**	(717) 782-2884
Illinois	(800) 545-2200	**Rhode Island**	(401) 277-3424
Indiana	(317) 382-6662	**South Carolina**	(803) 935-7945
Iowa	(800) 972-2026	**South Dakota**	(605) 773-3153
Kansas	(913) 296-0189	**Tennessee**	(615) 741-5683
Kentucky	(502) 564-2154	**Texas**	(512) 834-6600
Louisiana	(504) 765-0219	**Utah**	(801) 536-4000
Massachusetts	(800) 532-9571	**Vermont**	(802) 863-7231
Maryland	(410) 631-3859	**Virginia**	(800) 523-4019
Maine	(207) 287-4311	**Washington**	(206) 753-2556
Michigan	(517) 335-8885	**West Virginia**	(304) 558-2981
Minnesota	(612) 627-5498	**Wisconsin**	(608) 266-5885
Mississippi	(601) 960-7463	**Wyoming**	(307) 777-7391
Missouri	(314) 526-4911		

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Who should read this pamphlet

This pamphlet is for anyone involved in a home improvement project—whether you are actually doing the work yourself or overseeing the work of renovation and remodeling professionals. Using the described practices will help keep lead dust levels lower during the project and protect homeowners and children. They also will reduce the amount of lead dust inhaled and show how to clean up lead dust once the project is completed.

This pamphlet can help homeowners and contractors do remodeling or renovation work safely. It will alert you to the hazards involved in handling lead-based painted surfaces and will provide useful methods you can use to reduce or eliminate exposures to lead. If you are uncertain how to properly perform any of these methods or where to be properly fitted for a respirator, you may want to call on a trained contractor or call your State lead program contact (see page 23).

This pamphlet is not intended for use as a guide for lead-based paint abatement procedures. Unlike remodeling and renovation activities, "abatement" is a process used only to address lead-based paint hazards. EPA has promulgated regulations for certification and training of professionals engaged in lead abatement. You should check with your State lead program contact (refer to page 23) for further information on these regulations.

EPA has proposed a rule requiring renovation and remodeling contractors to provide the EPA pamphlet, *Protect Your Family From Lead in Your Home,* to homeowners and occupants of most pre-1978 homes before they begin work. You should call the National Lead Information Clearinghouse (800-424-LEAD) to get further information on the availability of the pamphlet.

Helpful contacts

You may need additional information on how to protect yourself while remodeling or renovating. For more information:

- **Call your State lead-poisoning prevention contact** and your State Department of Environmental Protection to find out what assistance is available. Phone numbers of State lead poisoning prevention contacts are listed on the next page.
- **Call your local building code officials** to find out what regulations apply to the renovation and remodeling work that you are planning.
- **Call your local health department** to find out what other information is available about lead hazards and what assistance is available to you.
- **Call the National Lead Information Center** at (800) 424-LEAD to get a list of laboratories that can analyze paint and dust samples for lead, and to obtain other important lead hazard information, such as the pamphlets *Lead Poisoning and Your Children* and *Protect Your Family From Lead in Your Home.* In the future, renovation and remodeling contractors may be required to provide a copy of this pamphlet to homeowners and occupants before they begin work.
- **Call the Housing and Urban Development** (HUD) Office of Lead Hazard Control at (888) LEADLIST to obtain a list of trained inspectors.
- **Call the Occupational Safety and Health Administration** (OSHA), Department of Job Safety and Health at (202) 219-8151 to get information on respirators and protective clothing.
- **Call the National Conference of State Legislatures** at (303) 830-2200 to get information about the current state regulations for disposing of lead-waste in your area.

Smart Remodeling Checklist

Before the work begins

- ❑ Have your paint tested for lead by a qualified professional.
- ❑ Cover interior and exterior exposed areas with plastic sheeting.
- ❑ Turn off forced-air heating and air conditioning systems.

During work

- ❑ Keep all non-workers outside of the work area.
- ❑ Wear protective clothing and shoes while doing the work.
- ❑ Use a properly fitted respirator equipped with HEPA filters.
- ❑ Exercise caution when using paint strippers since they contain toxic chemicals.
- ❑ Do not eat, drink, or smoke in the work area.
- ❑ Do not dry-sand, blast, or power-wash to remove lead-based paint.
- ❑ Do not use high-temperature heat guns or open flames on lead-based paint.

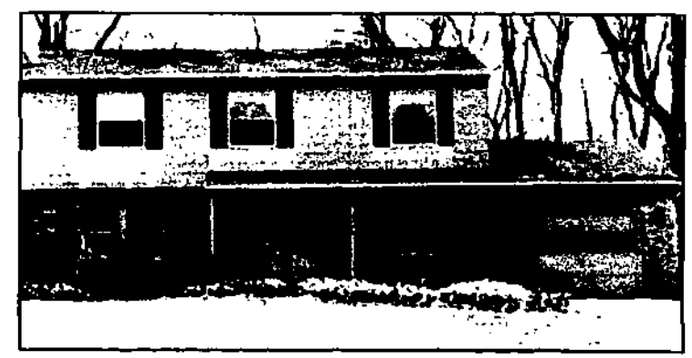
After work is completed

- ❑ Remove plastic sheeting by rolling or folding inward.
- ❑ Wrap construction debris with plastic.
- ❑ Vacuum exposed areas with a HEPA filter-equipped vacuum cleaner.
- ❑ Wash exposed areas with a general all-purpose cleaner or lead-specific cleaning product.
- ❑ Change clothes and shoes before leaving the work area. Machine wash separately.
- ❑ Shower and wash your hair right after finishing work.
- ❑ Test areas for lead dust contamination after final cleanup.

Lead hazards

Lead-based paint is poisonous. The smallest lead dust particles cannot be seen but they can get into the body. The dust and chips from lead-based paint are dangerous when swallowed or inhaled, especially to small children and pregnant women. Lead can affect children's developing nervous systems, causing reduced IQ and learning disabilities. In adults, high lead levels can cause high blood pressure, headaches, digestive problems, memory and concentration problems, kidney damage, mood changes, nerve disorders, sleep disturbances, and muscle or joint pain. A single, very high exposure to lead can cause lead poisoning. Lead can also affect the ability of both women and men to have healthy children.

A home built in or after 1978 should not contain lead-based paint since lead-based paint was banned for use in residences in 1978; however, a home built before 1978 is likely to have surfaces painted with lead-based paint. If you work on these painted surfaces, you can be exposed to lead. Even if the lead-based paint has been covered with new paint or another covering, cracked or chipped painted surfaces can expose the lead-based paint, possibly creating a lead hazard. Dry-sanding, scraping, brushing, or blasting lead-based paint can produce dust and paint chips. Burning lead-based paint with open flame torches to make it easier to strip is especially dangerous. The fumes from the hot paint contain lead and volatile chemicals that are poisonous when inhaled.



Be concerned if your home was built before 1978. It may have lead-based hazards.

Is my family okay?

Renovation and remodeling activities can make a lot of dust that contains lead in and around your home. If you are concerned that your family has been exposed to lead-based paint, call your doctor or local health department to arrange for a blood test.

Will the job create lead hazards?

Can I do the work?

It is extremely important that you properly use all the methods in this pamphlet in order to protect you and your family from lead dust, both during and after the project. Unless you can follow all of the work practices and safety precautions in this pamphlet, you should hire professionals to do your renovation or remodeling work. If you decide to hire remodeling professionals, make sure they have training and experience in dealing with the hazards of remodeling or renovating homes with lead-based paint.

- **To be sure that you're not dealing with lead-based paint you must have the paint tested by a qualified professional.** Use a trained inspector to test your home. A trained inspector will test the surfaces of your home by using a portable X-ray fluorescence (XRF) machine which measures the amount of lead in the paint or by sending paint samples to a laboratory equipped to measure lead in paint. The results of using chemical testing kits are not recommended. To find an inspector, contact your State agency listed on page 23 or call 1-(888) LEADLIST to obtain a list of trained inspectors.

- **If you are removing paint or breaking through painted surfaces, you should be concerned about lead-based paint hazards.** If your job involves removing paint, sanding, patching, scraping, or tearing down walls, you should be concerned about exposure to lead-based paint hazards. If you are doing other work, such as removing or replacing windows, baseboards, doors, plumbing fixtures, heating and ventilation duct work, or electrical systems, you should be concerned about lead-based paint hazards, since you may be breaking through painted surfaces to do these jobs.

- **If you are working on any painted surface, you should be concerned about lead-based paint hazards.** You may find lead-based paint on any surface in your home including walls, interior trim, window sashes and frames, floors, radiators, doors, stairways, railings, porches, and exterior siding.

Final cleanup:

- **Start your cleanup work** from the dirtiest part of the work area and work toward the clean area of the house.

- **Work from the top of the room** toward the bottom, cleaning ceilings first, then walls, counters, and floors.

- **Carefully remove any plastic sheeting** used to protect surfaces by rolling or folding inward.

- **Wash floors and walls** with a recommended cleaning product (refer to page 5). Dispose of used wash water down a toilet.

- **Vacuum walls, floors, and wall-to-wall carpeting** with a HEPA filter-equipped vacuum cleaner.

- **Vacuum chair rails, window sills, casings, shelves, countertops, and baseboards again,** once they are dry.

Am I done?

Consider hiring a professional to test areas for lead dust contamination after your final cleanup. Call your local health department or the National Lead Information Center Clearinghouse at (800) 424-LEAD for a referral to a lead-testing professional.

Daily site cleanup:

- **Dispose of construction trash in a heavy-duty plastic bag.*** Carefully remove the dust and trash from the plastic sheeting to avoid contaminating other areas. If possible, pass the trash out a window to avoid carrying it through the house.

- **Strain out paint chips from liquid waste** and dispose of them in a heavy-duty plastic bag. Dispose of the remaining water down a toilet.*

- **Mop the floors** with a cleaning product recommended on page 5 using a disposable mop and water in areas where there is little dust, or vacuum with a HEPA filter-equipped vacuum cleaner. Change wash water frequently. Rinse with clean water. Dispose of used water down a toilet.*

- **Vacuum the plastic sheeting covering wall-to-wall carpeting** with a HEPA filter-equipped vacuum cleaner.

- **Mist** outside areas using a garden hose before sweeping these areas with a broom. Avoid dry sweeping since it spreads lead dust. Shovel, rake, or vacuum (HEPA filter-equipped) trash into heavy-duty plastic bags* placed in cardboard boxes for support.

- **Clean your vacuums and tools** with a recommended cleaning product (refer to page 5) and water.

- **Seal off the entryways with 6 mil polyethylene plastic** if you have to leave a work site unattended.

* Check with your State lead program (see page 23) to make sure there are no regulations in your State that prohibit this.

Useful equipment and where to get it

Getting the right equipment and knowing how to use it are essential steps in protecting yourself during remodeling or renovating.

- **A high-efficiency particulate air (HEPA) filter-equipped vacuum cleaner** is a special type of vacuum cleaner that can remove very small particles from floors, window sills, and carpets and keeps them inside the vacuum cleaner. Regular household or shop vacuum cleaners are not completely effective in removing lead dust. They may blow the lead dust out through their exhausts and spread the dust throughout the home. HEPA vacuum cleaners are available through laboratory safety and supply catalogs and vendors. They can sometimes be rented at stores that carry remodeling tools.

- **You need to use a NIOSH-certified respirator that is properly fitted and equipped with HEPA filters** to remove lead dust particles out of the air you breathe. Make sure you buy specific HEPA filters—they are always purple. Dust filters and dust masks are not effective in preventing you from breathing in lead particles. Follow the directions that come with the respirator to make sure it fits. A respirator that does not fit right will not work. Respirators are available through laboratory safety and supply catalogs and vendors, and are sometimes carried by paint and hardware stores.

- **Protective clothes**, such as coveralls, shoe covers, hats, goggles, face shields, and gloves should be used to help keep lead dust from being tracked into areas outside of the work site. These items are available through laboratory safety equipment supply catalogs and vendors. Inexpensive disposable suits can sometimes be purchased at paint stores.

Use a HEPA filter-equipped vacuum cleaner. Standard household and shop vacuum cleaners are not effective at removing lead dust.

- **Heavy-duty polyethylene plastic sheeting** for covering areas exposed to lead dust can be purchased at hardware stores or lumber yards. The label should say that the plastic is made of polyethylene and is 6 mils thick.

- **Duct tape** to hold the plastic in place, and completely seal the work areas, can be purchased at hardware stores and lumber yards.

- **Wet-sanding equipment, wet/dry abrasive paper, and wet-sanding sponges** for "wet methods" can be purchased at hardware stores.

- **Spray bottles for wetting surfaces to keep dust from spreading** can be purchased at general retail and garden supply stores.

- **Cleaning products to use** include: either a general all-purpose cleaner or a cleaner made specially for lead to clean the dust from renovation or remodeling activities. All-purpose cleaners can be found in grocery stores. Lead-specific cleaning products can be purchased from some paint and hardware stores.

- **Buckets with wringers, debris containers, disposable heavy-duty plastic bags, rags, rakes, shovels, sponges, and string mops** for ongoing, daily, and final cleaning can be purchased at hardware and retail stores.

Cleaning up lead waste

Cleaning includes not only the removal of visible debris but also the removal of leaded dust particles which are too small to be seen by the naked eye.

Pay special attention to cleanup activities to prevent contaminating other areas or exposing people to lead. Everyone working on your job should take the precautions given here to help prevent lead contamination.

Personal cleanup:

- **Vacuum dust from clothing** using a HEPA filter-equipped vacuum cleaner.

- **Wash your hands and face** before you leave the work site.

- **Change your clothes and shoes before leaving the work site** to prevent contaminating areas outside the work site. After removing your clothes, machine wash them separately from other family laundry.

- **Do not take off your respirator** until after you have removed your outer protective clothing.

- **Shower and wash your hair** right after finishing work to prevent spreading lead dust.

Wash hands thoroughly to remove lead dust.

Vacuum dust from clothing.

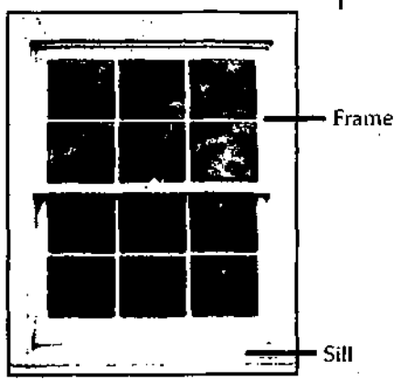
Window work

Window sills and window frames on homes built before 1978 can have high amounts of lead-based paint. Since these items are seldom replaced, paint tends to build up on them. Follow these basic safety precautions for working on these types of windows:

- **For window pane/glass replacement,** cover the floor inside under the window with 6 mil polyethylene plastic sheeting to catch any dust fall. Spray the work area surface with water to reduce the amount of dust generated when replacing the window pane/glass. Score the window pane/glass with a razor knife to facilitate its removal. Collect all dust and paint chips and dispose in a sealed plastic bag.

- **For window repair,** cover the floor inside under the window with plastic sheeting to catch any dust fall. Spray the work area surface with water to reduce the amount of dust generated when repairing the window. Wet scrape deteriorated paint. Collect all dust and paint chips and dispose in a sealed plastic bag.

- **For window replacement,** cover the entire inside window opening with plastic sheeting. Cover the floor inside under the window and the ground outside the window with 6 mil polyethylene plastic sheeting to catch any dust fall. Spray the window sill and frame with water to reduce the dust. Remove the window unit from the outside, if possible. Collect all dust and paint chips and dispose of them in a sealed plastic bag.



Remove window unit from the outside, if possible.

Safe work practices

You must protect yourself and your family from breathing lead dust created by renovation and remodeling projects.

- **Keep all non-workers, especially children, pregnant women, and pets outside of the work area** while doing remodeling or renovation work until cleanup is completed.

- **Break large projects into several small projects** so that you can control the amount of lead dust made. Clean up after each phase of the project.

- **Wear a properly fitted respirator** equipped with HEPA filters.

- **Wear protective clothing** such as coveralls, shoe covers, goggles, and gloves to keep dust off your skin. Launder these items separately.

- **Change your clothes and shoes before leaving the work area** to avoid carrying lead dust throughout the house.

- **Machine wash your work clothes separately from other family laundry.**

- **Shower and wash hair** right after finishing work to reduce dust contamination.

- **Do not eat, smoke, or drink in the work area** to avoid accidentally swallowing lead dust. Wash your hands and face before eating, smoking, or drinking.

- **Dispose of used wash water down a toilet.*** Never pour wash water on soil.

* Check with your State lead program (see page 23) to make sure there are no regulations in your State that prohibit this.

Do wear a respirator so you don't breathe in lead.

Don't wear dust masks—they won't protect you from lead.

Setting up to work inside

Close off entryways with an airlock.

Dust contaminated with lead can cling to your clothes and skin, to walls and floors, and to furniture and floor coverings. Forced-air heating and air conditioning systems also can spread dust throughout your home. To keep dust from spreading throughout your home, take the following safeguards:

- **Remove furniture,** area rugs, curtains, food, clothing, and other household items until cleanup is complete. If you are removing wall-to-wall carpet as part of your remodeling job, see page 10.

- **A layer of polyethylene plastic sheeting, at least 6 mils thick,** should be placed on the floor and on the furnishings and exposed surfaces that cannot be removed, such as countertops and shelves. Cover openings, such as gaps around pipes, with a single sheet of plastic. All plastic should be secured with duct tape.

- **Turn off forced-air heating and air conditioning** systems during renovation and remodeling. Cover vents with plastic sheeting and tape the sheeting in place with duct tape. Windows should be kept closed unless volatile chemicals will be used.

- **An airlock should be constructed at the entry to the work area.** The airlock consists of two sheets of plastic. One sheet is completely taped along all four edges. The tape must extend all the way around the top, two sides, and the floor. This plastic sheet is then cut down the middle. The second sheet is only taped along the top and acts as a flap covering the slit in the first sheet of plastic. If two entryways exist, one should be completely sealed in plastic. As an alternative, the doorway can be taped closed on all sides.

Removal of large structures

When you demolish and remove large structures painted with lead-based paint, such as walls, door frames, floor coverings, and ceilings, you are likely to be left with large amounts of dust and trash that contain lead.

To reduce exposure to large amounts of lead dust:

- **Seal off the work area** by covering entryways with 6 mil polyethylene plastic sheeting.

- **Cover nearby windows** with 6 mil polyethylene plastic sheeting.

- **Turn off forced-air** heating and air conditioning systems. Then cover heating and air conditioning vents with a layer of 6 mil polyethylene plastic sheeting.

- **Remove rugs and furniture** from the work area, if possible.

- **Cover the floors and the furniture** in the work area and adjoining areas with 6 mil polyethylene plastic sheeting.

- **Wet the surface and debris** as you demolish it to keep dust levels down.

- **Remove and dispose of trash properly.** Allowing debris to accumulate in the work area increases the risk of spreading dust through the house.

Wear protective clothing and a respirator when removing walls that may contain lead.

Preparing surfaces for new paint or wallpaper

Blasting and power washing

Do not blast or power wash lead-based painted surfaces. Blasting and power washing create large amounts of dust and waste water that contain lead and can contaminate large areas.

Preparing walls and other surfaces for painting, staining, or wallpapering can create lead exposure risks. With good work practices, you can reduce the risk of exposure to lead.

- **Cover the floor and furniture** with 6 mil polyethylene plastic sheeting.
- **Avoid sanding lead-based painted surfaces** whenever possible. If you must sand, use a sander with a vacuum attachment connected to a HEPA filter-equipped vacuum cleaner, or use a wet-sanding sponge.
- **Wipe the area you are sanding often and rinse** the sponge in a bucket of water. Strain out any chips of paint and dispose of them in heavy-duty plastic bags. Dispose of the used wash water down the toilet.* Wash the walls with a recommended cleaning product (refer to page 5), rinse, and let dry before painting or wallpapering. Be careful while wet sanding because wet plastic can be very slippery.
- **Exercise caution when using paint strippers** since they contain toxic chemicals. Chemical strippers containing methylene chloride are not recommended.
- **If you intend to feather or scrape the lead-based painted surface,** spray the work area surface with water to reduce the amount of dust. For scraping, use a wet-scraper with a HEPA filter-equipped exhaust.

* Check with your State lead program (see page 23) to make sure there are no regulations in your State that prohibit this.

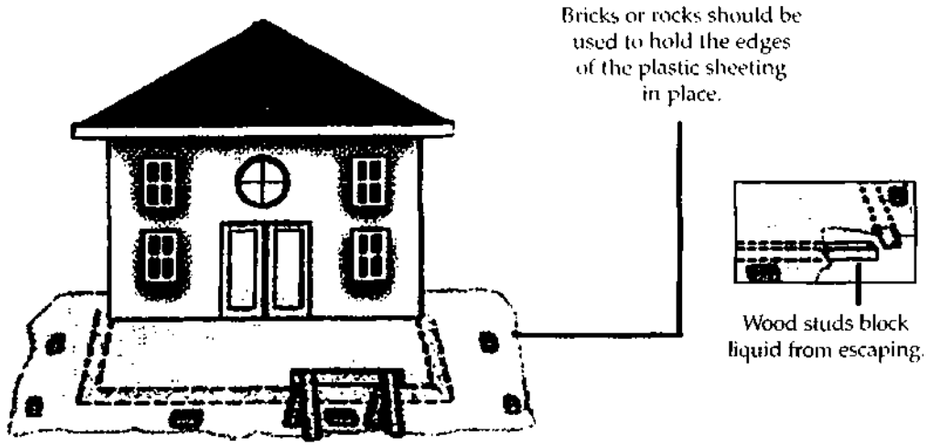
Setting up to work outside

Exterior work often produces dust, paint chips, larger pieces of material, and liquids that contain lead. It is easy to track dust containing lead inside your home, where it can pose a hazard. Trash that contains lead also can contaminate the soil surrounding the house if you don't handle it correctly. To avoid contaminating the areas surrounding your house, take the following precautions:

- **If using a ladder, anchor it securely to the ground,** not to the plastic which can be punctured.
- **If wind speeds exceed 20 mph, or if it begins to rain, stop and complete cleanup.**
- **One lead-safe entryway should be made available to residents at all times.** Do not treat front and rear entrances simultaneously if there is not a third doorway.
- **Cover the ground and any plants or flowers** with 6 mil polyethylene plastic sheeting to catch dust and trash. A single sheet of polyethylene plastic sheeting, at least 6 mils thick, should extend at least 5 feet from the base of the dwelling and an additional 3 feet for each additional story.
- **All windows, including windows in adjacent dwellings, within 20 feet of the work area should be kept closed.**

- **Playground equipment**, sandboxes, and toys should be moved at least 20 feet away from the work area. If items cannot be moved from the area, then they should be sealed with plastic sheeting.

- **Remove personal belongings from the area before starting work.**



Secure plastic to the side of the dwelling with duct tape. There should be no gaps between the dwelling and the plastic. Plastic sheeting should extend at least 8 feet from the foundation of a two-story house.

Paint removal and floor refinishing

Paint removal usually creates extensive amounts of lead and lead dust when using processes such as heat, chemicals, and sharp tools. It can be performed safely and effectively by following the precautions below.

- The painted surface should be misted with water first. The paint may be removed by wet scraping or wet sanding with a HEPA vacuum attachment, or using a wet-sanding sponge. Wipe the area you are sanding often and rinse the sponge in a bucket of water.

- Chemical strippers may be used to remove paint, but those containing methylene chloride are not recommended. Exercise caution when using paint strippers since they contain toxic chemicals.

- Heat guns may be used to remove paint, but do not use those that operate above 1,100° F.

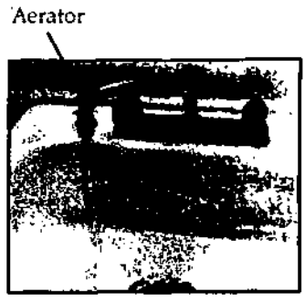
- For mechanical removal methods (such as HEPA vacuum blasting, machine sanding or grinding), use tools equipped with HEPA exhaust capability.

After removing the paint, wash the surface with a recommended cleaning product (see page 5), rinse, and let dry before re-treating.

Using heat guns

Do not use a heat gun operating above 1,100°F or open flame torches to loosen lead-based paint. Heating and burning lead-based paint makes dangerous fumes and vapors.

Plumbing work



Remove faucet aerators and clean out any debris.

If you are working on older pipes that contain lead solder, you should be concerned about lead hazards in plumbing. Disturbing lead-soldered pipes can dislodge pieces of lead solder that can get into your drinking water or come to rest in aerators or the bottom of pipes or joints. Follow these precautions to reduce lead hazards in plumbing:

During work:

- **Follow the practices** outlined in the Minor repairs section (page 12) when you break through walls or floors to reach pipes.
- **Use adequate ventilation** to avoid inhaling dangerous fumes from soldering.
- **Promptly dispose of solder pieces** in heavy-duty plastic bags when you finish plumbing work.
- **Use lead-free solder** when working on drinking water plumbing.

After work is completed:

- **Remove faucet aerators and clean** out any debris before re-installing them. Look carefully for grit or pieces of solder and remove them.
- **Flush the supply pipes** you have been working on by letting them run for several minutes with the aerators removed. The water flowing through the pipes removes small pieces of loose solder.

Carpet removal

If you plan to remove or replace your carpet as part of a remodeling job, take the following steps to avoid spreading lead dust:

- **Mist the entire surface of the carpet** with water to keep dust down.
- **Roll the carpet inward** to avoid spreading dust to other areas.
- **Wrap carpet and pad** in 6 mil polyethylene plastic sheeting. Tape seams closed with duct tape.
- **Vacuum floor** with a HEPA filter-equipped vacuum cleaner after the carpet is wrapped but before you remove it.
- **HEPA vacuum the floor again** after you remove the carpet.

Mist carpet surfaces with water to reduce spread of dust.

HVAC duct work

Heating, ventilation, and air conditioning system ducts can accumulate dust for many years. If you suspect that the dust contains lead, follow these steps when replacing or cleaning the ducts:

- **Cover the floor** under the ducts with 6 mil polyethylene plastic sheeting to catch dry falling dust.
- **Use a HEPA filter-equipped vacuum cleaner** to remove dust from the inside of the ducts before beginning work.
- **Rinse the duct pieces** in an area well away from the house before reinstalling them. If you are disposing of old duct pieces, first wrap them in plastic and seal with duct tape.

Heating and air conditioning ducts can accumulate dust that contains lead.

Minor repairs

If you plan to conduct minor repairs on painted surfaces, such as repairing or replacing a door lock, repairing a door, drilling holes to install shelves, or sawing into painted wood or plaster, then wet methods and simple cleaning can reduce hazards of lead dust:

- **Cover the floor** under the work area with 6 mil polyethylene plastic sheeting to catch any sludge or dust.
- **Spray the work area surface** with water to reduce the amount of dust generated during the minor repair.
- **To eliminate friction points on a door,** first mist the door, then remove the door to plane it. Keep door surfaces being planed wet during repair. Replace the door when the work is complete.
- **Vacuum the floor** under the work area and all surfaces within 5 feet of the work area with a HEPA filter-equipped vacuum cleaner.

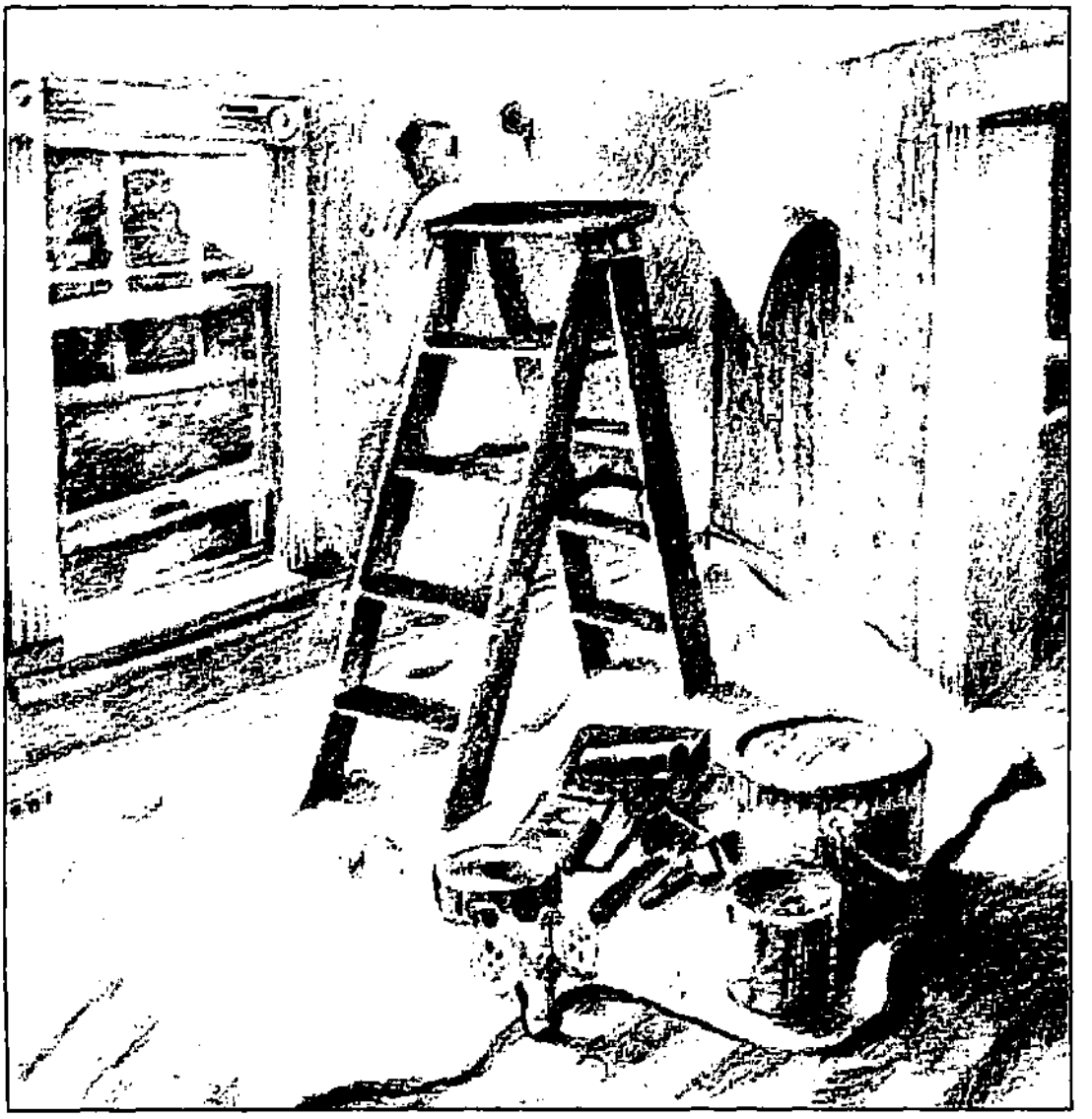
Agencia de los Estados Unidos para
la protección del medio ambiente

EPA 747-K-97-002
Septiembre de 1997

Oficina de prevención de contaminación y substancias tóxicas

EPA

Reducción de los riesgos de contaminación por plomo cuando remodela su casa



La Agencia de los Estados Unidos para **la protección del medio ambiente** se preocupa por las personas que son propietarias de sus casas y los constructores profesionales que puedan estar expuestos al plomo como consecuencia de proyectos de remodelación o renovación.

El propósito de este folleto es ayudar a reducir la exposición al plomo cuando se llevan a cabo renovaciones o remodelaciones en una casa. Este folleto se pondrá al día conforme se tenga nueva información sobre cómo reducir los riesgos de contaminación por plomo.

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¿Quién debe leer este folleto?

Este folleto es para quienes participen en un proyecto de mejoras de una vivienda, ya sea que usted mismo lo esté haciendo o que supervise el trabajo de renovación y remodelación que llevan a cabo profesionales. Las recomendaciones descritas ayudarán a reducir los niveles de polvo de plomo durante la obra y a proteger a las personas dueñas de sus casas y niños. También son útiles para reducir la cantidad de polvo de plomo que se inhale y mostrar cómo limpiar el polvo de plomo una vez completado el proyecto.

Este folleto puede ayudar a los dueños de casa y a los contratistas a hacer los trabajos de remodelación o renovación en forma segura. Le alertará sobre los peligros que hay al trabajar en superficies que han sido pintadas con pinturas que contienen plomo y le ofrecerá métodos útiles que puede utilizar para reducir o eliminar la exposición al plomo. Si no está seguro de cómo seguir estos métodos correctamente o dónde se puede probar adecuadamente una máscara protectora para respirar, puede llamar a un contratista capacitado o llamar a su contacto en los programas estatales para la contaminación por plomo (vea la página 23).

Este folleto no está destinado a usarse como una guía de procedimientos para abatir pinturas a base de plomo. A diferencia de las actividades de remodelación y renovación, "abatir" es un proceso que solo se usa para los peligros de las pinturas basadas en plomo. La EPA ha promulgado las regulaciones para la certificación y capacitación de profesionales dedicados a abatir plomo. Usted puede consultar a su contacto en los programas estatales para la contaminación por plomo (vea la página 23) para obtener más información sobre estas regulaciones.

La EPA ha propuesto una regulación que requiere que los contratistas de renovación y remodelación entreguen el folleto de la EPA *Protect Your Family From Lead in Your Home* (Proteja a su familia del plomo en su casa) a los propietarios y ocupantes de la mayoría de los inmuebles construidos antes de 1978 antes de comenzar el trabajo. Usted puede llamar a la National Lead Information Clearinghouse (Oficina nacional de distribución de información sobre plomo) al 800-424-LEAD para obtener más información sobre la disponibilidad de ese folleto.

Riesgos de la contaminación por plomo

La pinturas a base de plomo son venenosas. Las partículas más pequeñas del polvo de plomo no se pueden ver pero sí pueden ingresar al cuerpo. El polvo y las partículas de las pinturas a base de plomo son peligrosas cuando se tragan o inhalan, especialmente para los niños pequeños y las mujeres embarazadas. El plomo puede afectar el sistema nervioso en desarrollo de los niños, lo que reduce el cociente de inteligencia y causa trastornos del aprendizaje. En los adultos, los niveles altos de plomo pueden causar presión arterial alta, dolores de cabeza, problemas digestivos, problemas de concentración y memoria, daño renal, cambios de temperamento, desórdenes nerviosos, disturbios del sueño y dolores musculares y de las articulaciones. Una sola exposición a niveles muy altos de plomo puede causar un envenenamiento con plomo. El plomo también puede afectar la capacidad de hombres y mujeres para tener hijos sanos.

Un inmueble construido en 1978 o después no debe tener pinturas a base de plomo ya que en 1978 se prohibió el uso de dicho tipo de pintura en residencias; sin embargo, es probable que una inmueble construido antes de 1978 tenga superficies pintadas con pinturas a base de plomo. Si trabaja en esas superficies pintadas, usted puede estar expuesto al plomo. Inclusive si la pintura a base de plomo ha sido cubierta con pintura nueva u otro tipo de cubierta, las superficies pintadas rajadas o descascaradas pueden exponer la pintura a base de plomo, creando posiblemente un riesgo de contaminación por plomo. Si la pintura a base de plomo se lija en seco, raspa, cepilla o desprende con un chorro de arena se pueden producir polvo y partículas con plomo. Es especialmente peligroso quemar la pintura con una llama directa para sacar la pintura con más facilidad. Las emanaciones de la pintura caliente contienen plomo y substancias químicas volátiles que son venenosas cuando se inhalan.

Preocúpese si su vivienda fue construida antes de 1978. Puede ser que esté contaminada por la pintura a base de plomo.

¿Está bien mi familia?

Las remodelaciones pueden generar mucho polvo que contenga plomo dentro y alrededor de su casa. Si usted está preocupado de que su familia haya estado expuesta a pintura a base de plomo, llame a su médico o departamento de salud de su localidad para que le hagan una prueba de sangre.

¿Generará el trabajo riesgos de contaminación por plomo?

¿Puedo hacer el trabajo?

Es muy importante que use adecuadamente todos los métodos de este folleto para protegerse usted y proteger a su familia del polvo de plomo, tanto durante como después del proyecto. Salvo que usted pueda seguir todas las precauciones sobre cómo hacer el trabajo y sobre seguridad de este folleto, debe contratar a profesionales para que hagan la obra de renovación o remodelación. Si decide contratarlos, verifique que tengan la capacitación y la experiencia necesarias para manejar los riesgos de remodelar o renovar inmuebles con pintura a base de plomo.

- **Para estar seguro de que no se trata de pinturas a base de plomo usted debe hacer que un profesional calificado analice la pintura.** Utilice un inspector calificado para examinar su casa. Un inspector calificado examinará las superficies de su casa usando una máquina portátil de fluorescencia de rayos X (XRF) que mide la cantidad de plomo en la pintura o en su defecto enviará muestras a un laboratorio equipado para medir el plomo de la pintura. No se recomienda usar los estuches para pruebas de substancias químicas. Para encontrar un inspector, comuníquese con su agencia estatal que está en la lista de la página 23 o llame al 1-(888) LEADLIST para obtener una lista de los inspectores calificados.

- **Si usted quita pintura o necesita traspasar superficies pintadas, debe preocuparse sobre los riesgos de contaminación con pinturas a base de plomo.** Si su trabajo consiste en sacar la pintura, lijar, poner parches, raspar o tumbar paredes, se debe preocupar sobre la exposición a los riesgos de las pinturas a base de plomo. Si usted hace otro tipo de trabajo, como ser sacar o cambiar ventanas, zócalos, puertas y aparatos con tuberías, así como trabajos con los conductos de calefacción o aire acondicionado y con los sistemas eléctricos, también debe preocuparse de los riesgos asociados con las pinturas a base de plomo ya que puede necesitar traspasar superficies pintadas para hacer esos trabajos.

- **Si está trabajando en cualquier superficie pintada, debe preocuparse sobre los riesgos de la pintura a base de plomo.** Usted puede encontrar pinturas a base de plomo en cualquier superficie pintada de su casa incluyendo paredes, molduras interiores, los cierres y marcos de las ventanas, pisos, radiadores, puertas, escaleras, barandas, porches y las planchas y maderas del forro exterior.

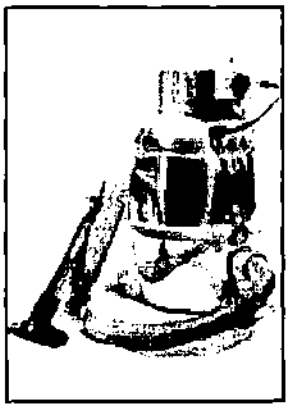
Equipo útil y dónde obtenerlo

El obtener el equipo adecuado y saber cómo usarlo son pasos esenciales para protegerse durante la remodelación o renovación.

- **Una aspiradora con un filtro de alta eficiencia para partículas de aire (HEPA)** es un tipo especial de aspiradora que puede remover partículas muy pequeñas de pisos, alféizares de ventanas y alfombras y mantenerlas dentro de la aspiradora. Las aspiradoras comunes de casa o de talleres no son totalmente eficaces para quitar el polvo de plomo. Pueden botar el polvo a través de sus escapes y dispersarlo por toda la casa. Las aspiradoras HEPA se pueden obtener a través de distribuidores y catálogos de equipos de seguridad y suministros para laboratorios. A veces se pueden alquilar en tiendas que venden herramientas para remodelar.

- **Usted necesita usar un máscara protectora para respirar que tenga el certificado de NIOSH, que le quede bien y que esté equipada con filtros HEPA** para quitar las partículas de polvo de plomo del aire que respira. Asegúrese de comprar filtros HEPA; estos son siempre de color púrpura. Los filtros y las máscaras corrientes de polvo no son eficaces para evitar que respire las partículas de plomo. Siga las instrucciones que vienen con la máscara protectora para respirar para estar seguro de que le quede bien; si no le queda bien no funcionará. Esta máscara se puede obtener a través de distribuidores y catálogos de equipos de seguridad y suministros para laboratorios. A veces se puede comprar en ferreterías y tiendas que venden pinturas.

- **Se debe usar ropa protectora**, como ser overoles, fundas para los zapatos, gorras, anteojos de protección, cubiertas para la cara y guantes, para ayudar a evitar llevar el polvo de plomo a lugares fuera de la zona de trabajo. Estos artículos se pueden obtener a través de distribuidores y catálogos de equipos de seguridad y suministros para laboratorios. A veces se puede comprar ropa desechable, que no es cara, en las tiendas que venden pintura.



Use una aspiradora con un filtro HEPA. Las aspiradoras comunes de casa o de talleres no son eficaces en remover el polvo de plomo.

- **Las cubiertas plásticas resistentes de polietileno** para las zonas expuestas al polvo de plomo se pueden comprar en las ferreterías o en las madereras. La etiqueta debe decir que están hechas de polietileno y que tienen un grosor de 6 mils (milésimas de pulgada).

- **La cinta adhesiva para tubería** sirve para sujetar el plástico en su sitio y sellar completamente la zona de trabajo y se puede comprar en las ferreterías o en las madereras.

- **El equipo para lijar en húmedo, el papel abrasivo mojado/seco y las esponjas para lijado húmedo** sirven para los "métodos húmedos" y se pueden comprar en las ferreterías.

- **Las botellas rociadoras para humedecer las superficies y evitar que el polvo se disperse** se pueden comprar en tiendas que venden artículos generales o de jardinería.

- **Los productos de limpieza que se usan** incluyen un limpiador de uso general o uno fabricado especialmente para plomo que se utiliza para limpiar el polvo de los trabajos de renovación o remodelación. Los limpiadores de uso general se pueden encontrar en los mercados. Los productos de limpieza especiales para plomo se pueden comprar en algunas ferreterías o tiendas que venden pinturas.

- **Baldes con exprimidores, recipientes para desechos, bolsas resistentes y desechables de plástico, trapos, rastrillos, palas, esponjas y trapeadores de cuerdas** para la limpieza conforme se va trabajando, la limpieza diaria y la que se hace al final se pueden comprar en ferreterías y tiendas minoristas.

Prácticas seguras de trabajo

Usted debe protegerse, tanto a sí mismo como a su familia para que no respiren el polvo de plomo generado por renovaciones o remodelaciones.

- **Mantenga a todos los que no trabajan, especialmente niños, mujeres embarazadas y animales domésticos fuera de la zona de trabajo** mientras esté haciendo la remodelación o renovación hasta que se haya completado el trabajo de limpieza.
- **Divida los proyectos grandes en varios proyectos pequeños** para que así pueda controlar la cantidad de polvo de plomo que se produce. Limpie después de cada fase del proyecto.
- **Use una máscara protectora para respirar** que le quede bien ajustada y tenga filtros HEPA.
- **Use ropa protectora** como ser overoles, fundas de zapatos, anteojos protectores y guantes para mantener el polvo fuera de su piel. Lave estas piezas por separado.
- **Cámbiese de ropa y zapatos antes de salir de la zona de trabajo** para evitar que lleve el polvo de plomo por toda la casa.
- **Lave la ropa de trabajo a máquina y por separado de la otra ropa de la familia.**
- **Báñese en la ducha o regadera y lávese el cabello** después de haber terminado el trabajo para reducir la contaminación con el polvo de plomo.
- **No coma, fume ni beba en la zona de trabajo** para evitar que accidentalmente ingiera polvo de plomo. Lávese las manos y la cara antes de comer, fumar o beber.
- **El agua que usó para lavarse deséchela en un inodoro.*** Nunca eche el agua en la tierra.

Lleve puesta la máscara protectora para que no respire plomo.

No use máscaras de polvo, no le protegen contra el plomo.

* Verifique con el programa estatal para la contaminación por plomo (vea la página 23) para asegurarse de que las regulaciones de su estado no lo prohiben.

Preparación para trabajos interiores

Cierre las entradas con una compuerta de aire.

El polvo contaminado con plomo se puede quedar en la ropa y la piel, las paredes y los pisos y en los muebles y las cubiertas de los pisos. La calefacción de aire forzado y los sistemas de aire acondicionado también pueden esparcir el polvo por toda la casa. Para que el polvo no se disperse, tome las siguientes precauciones:

- **Retire muebles**, alfombras, cortinas, alimentos, ropa y otros artículos de la casa hasta que se haya completado la limpieza. Si esta retirando el alfombrado de pared a pared como parte de su trabajo de remodelación vea la página 10.

- Se deben cubrir el piso, los muebles y las superficies expuestas que no se puedan sacar como ser mostradores y repisas con **cubiertas plásticas de polietileno que tengan un grosor de por lo menos 6 mils (milésimas de pulgada)**. Se deben tapar todos los espacios abiertos, como ser las rendijas alrededor de las tuberías, con una sola cubierta de plástico. Todo el plástico se debe sujetar con cinta adhesiva para tubos.

- **Apague los sistemas de calefacción de aire forzado y de aire acondicionado** durante la renovación y la remodelación. Cubra las salidas de aire con cubiertas de plástico y pegue las cubiertas en su sitio con cinta adhesiva para tubos. Las ventanas deben estar cerradas a menos que esté usando substancias químicas volátiles.

- **Se debe hacer una compuerta de aire en la entrada de la zona de trabajo.** La compuerta de aire consta de dos cubiertas de plástico. Una está totalmente pegada con cinta en los cuatro bordes. La cinta adhesiva debe cubrir a todo lo largo la parte superior, los dos lados y el piso. Luego se corta esta cubierta por el medio. La segunda cubierta se sujeta con la cinta adhesiva solamente por la parte de arriba y sirve como una cortina que cubre la entrada que se hizo con el corte de la primera cubierta de plástico. Si existen dos entradas, una de ellas se debe cerrar completamente con plástico. Como alternativa se pueden sellar con cinta todos los costados de la entrada de la puerta.

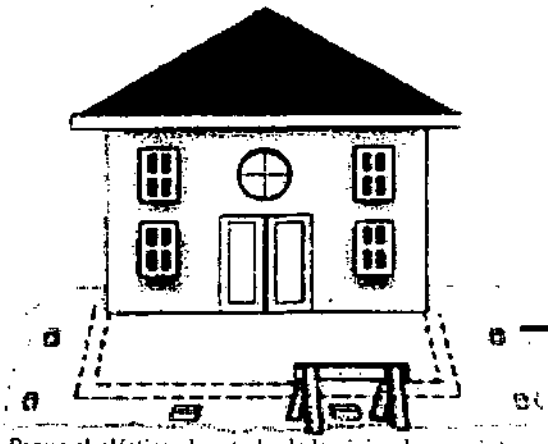
Preparación para trabajos exteriores

Los trabajos exteriores a menudo producen polvo, partículas de pintura, piezas grandes de material y líquidos que contienen plomo. Es fácil saber dónde hay polvo con plomo dentro de la casa y dónde puede ser un riesgo. Los desperdicios que contienen plomo también pueden contaminar la tierra alrededor de la casa si no se manejan adecuadamente. Para evitar que las zonas alrededor de la casa se contaminen, tome las siguientes precauciones:

- **Si usa una escalera, ánclela y asegúrela en el piso,** no en el plástico que se puede perforar.
- **Si la velocidad del viento sobrepasa las 20 millas por hora (32 km) o si llueve, se debe parar de trabajar y hacer una limpieza completa.**
- **Siempre debe haber una entrada libre de plomo para los residentes.** Si no hay una tercera entrada, no trabaje simultáneamente en la entrada del frente y la de atrás.
- **Cubra el piso y las plantas o flores con una cubierta plástica de polietileno de un grosor de 6 mils (milésimas de pulgadas) para atrapar el polvo y los desperdicios.** Una hoja de cubierta plástica de polietileno con un grosor de 6 mils se debe extender por lo menos 5 pies (1,5 m) desde la base de la construcción con 3 pies (0,9 m) más por cada piso adicional.
- **Deben estar cerradas todas las ventanas, incluyendo las ventanas de construcciones vecinas, que estén dentro de 20 pies (6 m) de la zona de trabajo.**

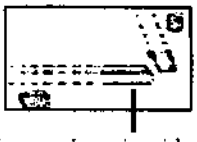
- **Los juegos de jardín,** cajas de arena y juguetes se deben retirar para que estén a por lo menos 20 pies de la zona de trabajo. Si no se pueden mover, se les debe cubrir y sellar con plástico.

- **Retire todos los efectos personales de la zona antes de empezar a trabajar.**



Pegue el plástico al costado de la vivienda con cinta adhesiva para tubos. No debe haber rendijas entre la vivienda y el plástico. Las cubiertas de plástico se deben extender por lo menos 8 pies (2,5 m) desde los cimientos de una casa de dos pisos.

Se deben usar ladrillos o piedras para sujetar los bordes de la cubierta de plástico en su lugar.



Los maderos impiden que se escapen los líquidos.

Retiro de alfombras

Si usted piensa sacar o cambiar el alfombrado como parte del trabajo de remodelación, siga los siguientes pasos para no esparcir el polvo con plomo:

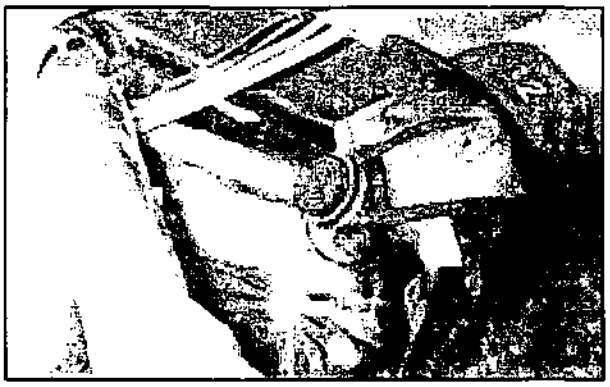
- **Humedezca toda la superficie del alfombrado** con agua para que no se levante el polvo.
- **Enrolle el alfombrado hacia adentro** para evitar esparcir el polvo a otras áreas.
- **Envuelva la alfombra y su base** con una cubierta plástica de polietileno de 6 mils (milésimas de pulgada). Selle los bordes de la envoltura con cinta adhesiva para tubos.
- **Aspire el piso** con una aspiradora que tenga un filtro HEPA después que haya envuelto el alfombrado pero antes de llevárselo.
- **Vuelva a aspirar el piso con una aspiradora con filtro** HEPA después que se haya llevado la alfombra.

Humedezca la superficie de la alfombra con agua para reducir la dispersión de polvo.

Trabajo en tubos de calefacción, ventilación y aire acondicionado (HVAC)

Los conductos de los sistemas de calefacción, ventilación y aire acondicionado pueden acumular polvo durante muchos años. Si usted sospecha que el polvo contiene plomo, siga estos pasos cuando cambie o limpie estos conductos:

- **Cubra el piso** debajo de los conductos con cubiertas plásticas de polietileno de 6 mils (milésimas de pulgada) para atrapar el polvo seco que caiga.
- **Utilice una aspiradora con filtros HEPA** para remover el polvo que esté dentro de los conductos antes de empezar el trabajo.
- **Lave las piezas del conducto** en una zona que esté bien lejos de la casa antes de volver a instalarlos. Si está desechando piezas del conducto antiguo, envuélvalas primero con plástico y séllelas con cinta adhesiva para tubos.



Los conductos de calefacción y aire acondicionado pueden acumular polvo que contiene plomo.

Reparaciones pequeñas

Si planea hacer reparaciones pequeñas en superficies pintadas como ser reparar o cambiar la cerradura de una puerta, reparar una puerta, perforar agujeros para instalar repisas o serruchar madera o mampostería pintada, los métodos húmedos y una limpieza simple pueden reducir los riesgos del polvo con plomo:

- **Cubra el piso** que está debajo del área de trabajo con cubiertas plásticas de polietileno de 6 mils (milésimas de pulgada) para atrapar cualquier residuo o polvo.
- **Rocíe el área de trabajo** con agua para reducir la cantidad de polvo que se genere durante la reparación pequeña.
- **Para eliminar los puntos de fricción de una puerta,** primero humedezca la puerta con un rociador, luego sáquela para nivelarla. Mantenga húmedas las superficies de la puerta que se estén nivelando durante la reparación. Vuelva a colocar la puerta cuando se haya completado el trabajo.
- **Aspire el piso** debajo del área de trabajo y todas las superficies que estén dentro de 5 pies (1,5 m) con una aspiradora que tenga filtros HEPA.

Trabajo de plomería

Saque los aereadores del grifo y límpielos de desechos.

Si está trabajando con tuberías viejas que tienen soldaduras de plomo, usted debe preocuparse de los riesgos de contaminación por plomo en el trabajo de plomería. El mover las tuberías con soldaduras de plomo puede aflojar pedazos de la soldadura de plomo que pueden pasar al agua que se bebe o ir a parar a los aereadores o al fondo de los tubos o en las uniones. Siga estas precauciones para reducir los riesgos de contaminación por plomo en los trabajos de plomería.

Durante el trabajo:

- **Siga las prácticas** descritas en la sección de reparaciones pequeñas en la página 12, para cuando usted rompe a través de paredes o pisos para llegar hasta los tubos.
- **Trabaje con buena ventilación** para evitar inhalar vapores peligrosos de la soldadura.
- **Al terminar su trabajo de plomería, deseche prontamente las piezas de soldadura** en bolsas de plástico resistente.
- **Use soldadura sin plomo** cuando trabaje en cañerías para agua de beber.

Después que complete el trabajo:

- **Saque los aereadores del grifo y limpie** los desechos antes de volverlos a instalar. Busque y deseche los pedazos de soldadura y polvo.
- **Enjuague las tuberías de suministro en las que ha estado trabajando** dejándolas correr por varios minutos sin los aereadores. El agua, al pasar a través de la tubería, remueve pequeñas partes sueltas de soldadura.

Cómo sacar la pintura y el acabado de los pisos

El sacar la pintura genera una cantidad excesiva de plomo y de polvo con plomo cuando se hace con procesos como el calor, los compuestos químicos y las herramientas punzantes. Sin embargo se puede hacer en forma segura y eficaz si se siguen las siguientes precauciones.

- Primero se debe humedecer con agua la superficie pintada. La pintura se puede sacar con raspado o lijado en mojado con un instrumento que tenga acoplada una aspiradora con filtros HEPA o usando una esponja para lijado húmedo. Limpie a menudo la zona que está lijando y enjuague la esponja en un balde de agua.
- Se pueden usar productos químicos para quitar la pintura, pero no se recomiendan los que contienen cloruro de metileno. Se debe tener cuidado cuando se utilizan substancias químicas para sacar pintura ya que contienen compuestos químicos tóxicos.
- Se pueden usar sopletes para sacar la pintura pero no use los que funcionan a más de 1.100°F (593°C).
- Use herramientas que tengan filtros HEPA en el escape cuando emplee métodos mecánicos para sacar la pintura (tales como chorro a presión con aspiradora HEPA, lijado o pulverizado mecánico).

Después de remover la pintura, lave la superficie con un producto de limpieza recomendado (vea la página 5), enjuáguela y deje que se seque antes de volver a tratarla.

Uso de los sopletes

No use un soplete que funciona por encima de 1.100°F (593°C) una antorcha de llama viva para aflojar la pintura a base de plomo. El calentar y quemar las pinturas a base de plomo produce emanaciones y vapores peligrosos.

Preparación de las superficies para pintura o empapelado nuevos

Chorro de arena y lavado a presión

No use chorro de arena ni lavado a presión en las superficies con pintura a base de plomo.
El chorro de arena y el lavado a presión generan grandes cantidades de polvo y agua de desecho que contienen plomo y pueden contaminar áreas extensas.

La preparación de paredes y otras superficies para pintar, teñir o empapelar puede ocasionar riesgos de exposición al plomo. Si sigue nuestras recomendaciones, usted puede reducir estos riesgos.

- **Cubra el piso y los muebles** con cubierta plástica de polietileno de 6 mils (milésimas de pulgada) de grosor.
- Siempre que sea posible **evite lijar las superficies con pintura a base de plomo.** Si tiene que lijar, use una lijadora a la que se pueda acoplar una aspiradora que tenga filtros HEPA, o utilice una esponja para lijado húmedo.
- **Limpie con frecuencia el área que está lijando y enjuague** la esponja en un balde de agua. Cuele cualquier partícula de pintura y deséchela en bolsas de plástico resistente. Deseche el agua que ha usado para lavar en el inodoro*. Lave las paredes con un producto de limpieza recomendado (consulte la página 5), enjuague y deje secar antes de pintar o empapelar. Tenga cuidado con el lijado húmedo porque el plástico mojado puede ser muy resbaloso.
- **Tenga cuidado cuando use productos químicos para sacar pintura** porque contienen substancias químicas tóxicas. No se recomiendan los productos que contienen cloruro de metileno.
- **Si tiene la intención de emparejar o raspar una superficie con pintura a base de plomo,** rocíe la superficie de la zona de trabajo con agua para reducir la cantidad de polvo. Para raspar utilice un instrumento húmedo que tenga un escape con filtro HEPA.

* Verifique con el programa estatal para la contaminación por plomo (vea la página 23) para asegurarse de que las regulaciones de su estado no lo prohíben.

Remoción de estructuras grandes

Cuando se demuelen y remueven estructuras grandes con pintura a base de plomo, como paredes, marcos de puertas, cubiertas de pisos y cielo rasos, es probable que queden grandes cantidades de polvo y desechos que contienen plomo.

Para reducir la exposición a grandes cantidades de polvo con plomo haga lo siguiente:

- **Aísle la zona de trabajo** cubriendo las entradas con cubiertas plásticas de polietileno de 6 mil (milésimas de pulgada) de grosor.
- **Cubra las ventanas cercanas** con cubiertas plásticas de polietileno de 6 mil de grosor.
- **Apague los sistemas de calefacción de aire forzado** y aire acondicionado; luego cubra sus salidas con cubiertas plásticas de polietileno de 6 mil de grosor.
- **Saque las alfombras y los muebles** de la zona de trabajo, si es posible.
- **Cubra los pisos y los muebles** de la zona de trabajo y áreas colindantes con cubiertas plásticas de polietileno de 6 mils (milésimas de pulgada).
- **Moje la superficie y los desechos** conforme va demoliendo para mantener bajos los niveles de polvo.
- **Remueva y deseche los desperdicios** en forma adecuada. Dejar que se acumulen los desechos en la zona de trabajo aumenta el riesgo de esparcir el polvo por toda la casa.

Use ropa protectora y máscara para respirar cuando remueve paredes que pueden tener plomo.

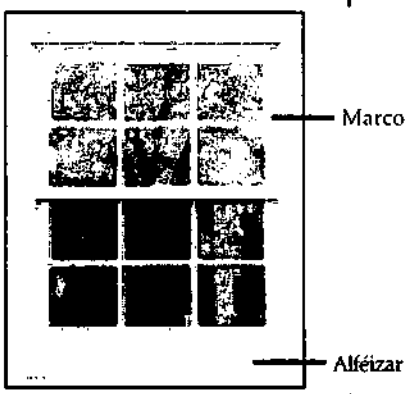
Trabajo de ventanas

Los alféizares y marcos de las ventanas de las casas construidas antes de 1978 pueden tener grandes cantidades de pintura a base de plomo. Ya que estas piezas se reemplazan muy poco, la pintura tiende a acumularse. Siga estas precauciones básicas de seguridad cuando trabaje con este tipo de ventanas:

- **Para reemplazar los vidrios de las ventanas,** cubra el piso del interior debajo de la ventana con cubiertas plásticas de polietileno de 6 mil de grosor para atrapar el polvo que caiga. Rocíe la superficie de la zona de trabajo con agua para reducir la cantidad de polvo que se forme cuando reemplace los vidrios. Haga unos cortes en los vidrios con una cuchilla para facilitar su remoción. Junte todo el polvo y los pedazos de pintura y deséchelos en una bolsa de plástico sellada.

- **Para reparar ventanas** cubra el piso del interior debajo de la ventana con cubiertas de plástico para atrapar el polvo que caiga. Rocíe la superficie de la zona de trabajo con agua para reducir la cantidad de polvo que se forme cuando esté reparando la ventana. Raspe en mojado la pintura deteriorada. Junte todo el polvo y los pedazos de pintura y deséchelos en una bolsa de plástico sellada.

- **Para remplazar una ventana** tape por dentro toda la apertura para la ventana con cubiertas de plástico. Cubra el piso interior debajo de la ventana y el suelo de la parte de afuera con cubiertas plásticas de polietileno de 6 mil de grosor para atrapar el polvo que caiga. Rocíe con agua el alféizar y el marco de la ventana para reducir la cantidad de polvo. Si es posible saque la ventana por el lado de afuera. Junte todo el polvo y los pedazos de pintura y deséchelos en una bolsa de plástico bien cerrada.



Si es posible saque la ventana por el lado de afuera.

Limpieza de los desechos con plomo

La limpieza incluye no solamente el sacar los restos que se ven sino también remover las partículas de polvo de plomo que son tan pequeñas que no se pueden ver a simple vista.

Ponga cuidado especial en la limpieza para evitar contaminar otras áreas o exponer a las personas al plomo. Todos los que estén trabajando en su obra deben tomar las precauciones que se dan aquí para ayudar a prevenir la contaminación por plomo.

Limpieza personal:

- Aspire el polvo de la ropa con una aspiradora que tenga filtros HEPA.
- Lávese las manos y la cara antes de salir del lugar de trabajo.
- Cámbiese de ropa y zapatos antes de salir del lugar de trabajo para prevenir la contaminación de áreas que estén fuera de la zona de trabajo. Después de sacarse la ropa lávela en la máquina por separado de la otra ropa de la familia.
- No se saque la máscara protectora para respirar hasta después de haberse sacado la ropa protectora.
- Báñese en la ducha o regadera y lávese el cabello inmediatamente después de haber terminado el trabajo para evitar diseminar el polvo de plomo.

Lávese bien las manos para sacarse el polvo con plomo.

Aspire el polvo de la ropa.

Limpieza diaria del lugar de trabajo:

- **Elimine los desechos de construcción en bolsas de *plástico resistente**.** Tenga cuidado de sacar el polvo y los desechos de las cubiertas de plástico para evitar contaminar otras áreas. Si es posible, saque los desechos por una ventana para evitar tener que llevarlos a través de la casa.

- **Cuele los pedazos de pintura de los desechos líquidos** y deséchelos en una bolsa de plástico resistente; deseche el resto del agua en el inodoro*.

- **Trapee los pisos** con uno de los productos recomendados en la página 5, usando un trapeador desechable y agua en las zonas donde hay poco polvo o use una aspiradora que tenga filtros HEPA. Cambie el agua con frecuencia. Enjuague con agua limpia. Deseche el agua que ha usado en el inodoro*.

- **Aspire la cubierta de plástico que está protegiendo el alfombrado de pared a pared** con una aspiradora con filtros HEPA.

- **Humedezca las áreas externas** con una manguera de jardín antes de barrerlas con una escoba. Evite barrer en seco ya que esparce el polvo con plomo. Con una pala, un rastrillo o una aspiradora con filtros HEPA ponga los desechos en bolsas de plástico resistente colocadas previamente en cajas de cartón para darles soporte.

- **Limpie sus aspiradoras y herramientas** con los productos de limpieza recomendados (consulte la página 5) y agua.

- **Deje selladas las entradas con plástico de polietileno de 6 mil (milésimas de pulgada)** si tiene que dejar el sitio de trabajo sin vigilancia.

* Verifique con el programa estatal para la contaminación por plomo (vea la página 23) para asegurarse de que las regulaciones de su estado no lo prohíben.

Limpieza final:

- **Comience a limpiar** desde la zona más sucia del sitio de trabajo hacia la zona limpia de la casa.
- **Trabaje de la parte de arriba de la habitación** hacia la parte de abajo, limpie primero los techos, luego las paredes, los mostradores y los pisos.
- **Retire con cuidado las cubiertas de plástico** que ha usado para proteger las superficies enrollándolas o doblándolas hacia adentro.
- **Lave los pisos y las paredes** con productos de limpieza recomendados (consulte la página 5). Deseche el agua que ha usado en el inodoro.
- **Aspire las paredes, pisos y el alfombrado de pared a pared** con una aspiradora que tenga filtros HEPA.
- **Aspire otra vez las guardasillas, los alféizares y los marcos de las ventanas, las repisas, los mostradores y los zócalos** cuando estén secos.

¿He terminado?

Considere contratar a un profesional que haga pruebas para ver si hay contaminación con plomo en las áreas en que haya terminado la limpieza. Llame a su departamento local de salud o al Centro nacional de distribución de información sobre plomo (National Lead Information Center Clearinghouse) al (800) 424-LEAD para que lo refieran a un profesional en pruebas de plomo.

Lista de control para remodelar inteligentemente

Antes de comenzar la obra

- ❑ Haga que un profesional calificado examine su pintura para saber si contiene plomo.
- ❑ Cubra las áreas expuestas, interiores y exteriores, con cubiertas de plástico.
- ❑ Desconecte los sistemas de calefacción de aire forzado y aire acondicionado.

Durante la obra

- ❑ Mantenga a todos los que no trabajan en la obra fuera de la zona de trabajo.
- ❑ Mientras esté trabajando, use ropa y zapatos protectores.
- ❑ Use una máscara para respirar que le quede bien ajustada y tenga filtros HEPA.
- ❑ Tenga cuidado cuando utilice productos para quitar pintura ya que contienen substancias químicas tóxicas.
- ❑ No coma, beba ni fume en la zona de trabajo.
- ❑ No remueva la pintura a base de plomo lijando en seco, o usando chorro de arena o agua a presión.
- ❑ No utilice sopletes de alta temperatura o de llama viva en pinturas a base de plomo.

Después que haya completado la obra

- ❑ Retire las cubiertas de plástico enrollándolas o doblándolas hacia dentro.
- ❑ Envuelva los restos de la construcción en material plástico.
- ❑ Aspire las zonas expuestas con una aspiradora que tenga filtros HEPA.
- ❑ Lave las áreas expuestas con un limpiador de uso general o un producto de limpieza específico para plomo.
- ❑ Cámbiese de ropa y zapatos antes de salir de la zona de trabajo. Lávelos a máquina por separado.
- ❑ Báñese en la ducha o regadera y lávese el cabello inmediatamente después de haber terminado el trabajo.
- ❑ Después de la limpieza final haga controles para ver si hay polvo con plomo que esté contaminando el área.

Contactos útiles

Si necesita más información sobre cómo protegerse al remodelar o renovar, puede hacer lo siguiente:

- **Llame a su contacto del programa estatal para la prevención del envenenamiento con plomo** y al Departamento estatal de Protección del medio ambiente para averiguar qué servicio técnico ofrecen. Los números de teléfono de los programas estatales para la prevención del envenenamiento con plomo están en la lista de la siguiente página.
- **Llame a los funcionarios a cargo del código local de construcciones** para averiguar qué reglamentos de renovación o remodelación son aplicables a su obra.
- **Llame al departamento local de salud** para averiguar qué otra información tienen sobre los peligros del plomo y qué servicio técnico ofrecen.
- **Llame al Centro Nacional de Información sobre el plomo** al (800) 424-LEAD para obtener una lista de laboratorios que analizan plomo en muestras de pintura y polvo e información importante sobre los riesgos de plomo, tales como los folletos Lead Poisoning and Your Children (Envenenamiento con plomo y sus hijos) y Protect Your Family From Lead in Your Home (Proteja a su familia del plomo en su casa). Más adelante, puede ser que se requiera que los contratistas de renovaciones y remodelaciones distribuyan este folleto a los dueños y residentes antes de empezar el trabajo.
- **Llame a la Oficina de Control del Riesgo del Plomo** del HUD (Desarrollo Habitacional y Urbano) al (888) LEADLIST para obtener una lista de inspectores capacitados.
- **Llame a la Oficina de Seguridad y Salud Ocupacional** (OSHA), Departamento de Seguridad y Salud Ocupacional al (202) 219-8151 para obtener información sobre máscaras de respirar y ropa protectora.
- **Llame a la Conferencia Nacional de Legislaturas Estatales** al (303) 830-2220 para obtener información sobre las regulaciones estatales vigentes para el desecho de residuos con plomo en su área.

Contactos en los Programas estatales para la contaminación por plomo

Algunas ciudades y estados tienen sus propios reglamentos para las actividades relacionadas con pintura a base de plomo. Verifique con su agencia estatal en el listado de abajo para saber si hay disposiciones locales y leyes estatales que sean aplicables a su caso. La mayoría de las agencias estatales también proporcionan información para encontrar firmas dedicadas a abatir plomo en su área y sobre la posibilidad de ayuda financiera para reducir los riesgos del plomo.

Alabama	(205) 242-5661	**Montana**	(406) 444-3671
Alaska	(907) 465-5152	**Nebraska**	(402) 471-2451
Arkansas	(501) 661-2534	**Nevada**	(702) 687-6615
Arizona	(602) 542-7307	**New Hampshire**	(603) 271-4507
California	(510) 450-2424	**New Jersey**	(609) 633-2043
Colorado	(303) 692-3012	**New Mexico**	(505) 841-8024
Connecticut	(203) 566-5808	**New York**	(800) 458-1158
Washington, D.C.	(202) 727-9850	**North Carolina**	(919) 715-3293
Delaware	(302) 739-4735	**North Dakota**	(701) 328-5188
Florida	(904) 488-3385	**Ohio**	(614) 466-1450
Georgia	(404) 657-6514	**Oklahoma**	(405) 271-5220
Hawaii	(808) 832-5860	**Oregon**	(503) 248-5240
Idaho	(208) 332-5544	**Pennsylvania**	(717) 782-2884
Illinois	(800) 545-2200	**Rhode Island**	(401) 277-3424
Indiana	(317) 382-6662	**South Carolina**	(803) 935-7945
Iowa	(800) 972-2026	**South Dakota**	(605) 773-3153
Kansas	(913) 296-0189	**Tennessee**	(615) 741-5683
Kentucky	(502) 564-2154	**Texas**	(512) 834-6600
Louisiana	(504) 765-0219	**Utah**	(801) 536-4000
Massachusetts	(800) 532-9571	**Vermont**	(802) 863-7231
Maryland	(410) 631-3859	**Virginia**	(800) 523-4019
Maine	(207) 287-4311	**Washington**	(206) 753-2556
Michigan	(517) 335-8885	**West Virginia**	(304) 558-2981
Minnesota	(612) 627-5498	**Wisconsin**	(608) 266-5885
Mississippi	(601) 960-7463	**Wyoming**	(307) 777-7391
Missouri	(314) 526-4911		

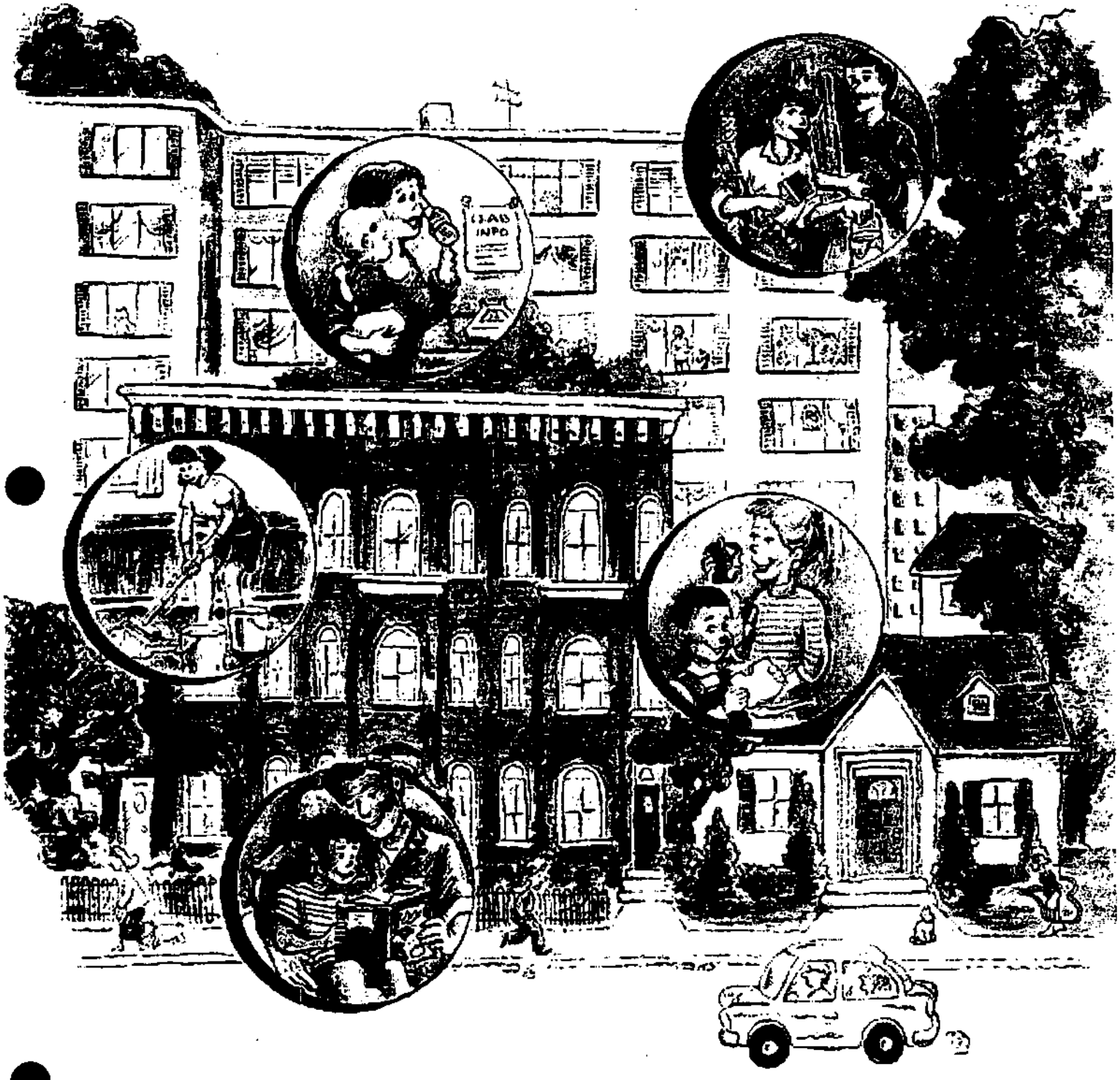
United States
Environmental Protection
Agency

Prevention, Pesticides,
and Toxic Substances
(7404)

EPA 747-B-98-002
June 1998

EPA

Lead In Your Home: A Parent's Reference Guide



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Foreword

To heighten awareness about lead poisoning prevention, the U.S. Environmental Protection Agency (EPA) has developed Lead in Your Home: A Parent's Reference Guide. The Agency believes this is an essential resource for anyone—from owners to tenants—concerned about the dangers of lead in their home and environment. This Guidebook provides Agency recommendations on how you can reduce your family's risk of lead exposure and prevent lead poisoning, ranging from simple steps you can do now to more rigorous procedures that will permanently get rid of lead hazards in your home.

Throughout the Guidebook, the term "home" is used to refer to your home—whether you own or rent a house, apartment, or other type of dwelling. In addition, the Guidebook has been designed so you do not need to read every chapter. Read the Quick Tips listed at the beginning of each chapter. They highlight important information provided in that chapter. Turn to the appendix for a list of hotlines, organizations, and people with further information on lead-related issues. By being aware of the danger lead can pose to you and your family, you are taking the first step in keeping them safe from its hazards.

1

Lead in Your Home: A Parent's Guide

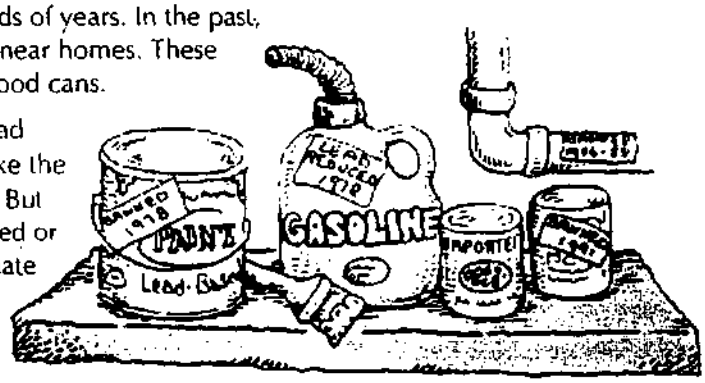
QUICKTIPS

- Lead exposure can be dangerous, especially to children ages 6 and younger.
- Exposure to lead-contaminated dust, not lead-based paint, is the most common way to get lead poisoning.
- Lead poisoning can be prevented.

Lead is highly toxic. Exposure to it can be dangerous, especially for children who are 6 or younger. But lead is also stable and easy to work with, so it has been used for many purposes—even in our homes. It is important that every parent know where lead can be found, and how to control it. It is also important to know what to do if you or a member of your family is exposed to lead.

How Lead Has Commonly Been Used

Lead is a metal that has been mined for thousands of years. In the past, it was used to make common items found in or near homes. These items include paint, gasoline, water pipes, and food cans.



- Lead in paint. Manufacturers used to put lead pigments in paint because the pigments make the paint last longer and cling to surfaces better. But problems can occur later. Paint that is disturbed or that is breaking down with age can contaminate dust. Lead-based paint is no longer used in homes, on children's toys, or on household furniture. In 1978, the Consumer Product Safety Commission (CPSC) banned its sale for use in residences. That same year the CPSC also made it illegal to paint children's toys and household furniture with lead-based paint.
- Lead in gasoline. Oil companies used to add lead to gasoline to stop engine knocking in automobiles, but dangerous lead particles escaped into the air through auto exhaust systems. In 1978, the U.S. Environmental Protection Agency (EPA) reduced the amount of lead allowed in gasoline.

- Lead in household pipes. Lead used in fixtures, pipes, or pipe soldering can leach into water that flows through the pipes. In 1986, and again in 1988, Congress changed the Safe Drinking Water Act to restrict the use of lead in pipes, solder, and other components used in public water systems and residential and nonresidential plumbing. Unfortunately, lead may still be found in pipes today.
- Lead in food cans. The lead solder used to seal food cans can mix with the food in the can. The United States banned the use of lead solder in cans in 1995, but it is still used in many other countries. Lead solder may be found in cans imported to the United States.

Finding Lead Hazards in Your Home

Lead-based paint that is in good condition is usually not a hazard.

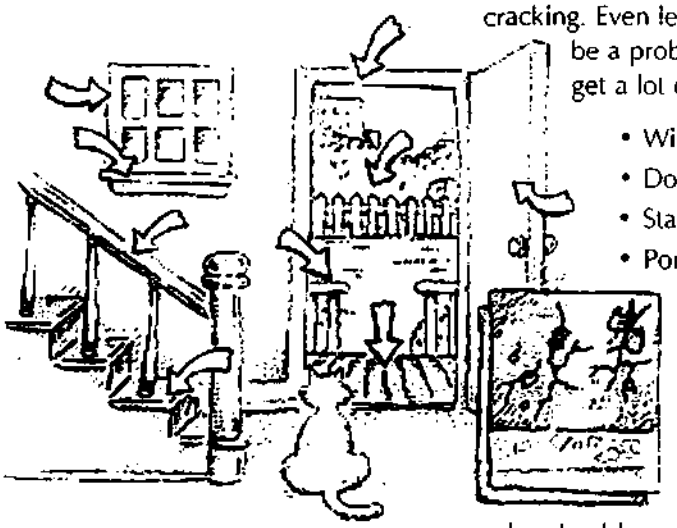
Changes in the law have greatly reduced the amount of lead in our homes and in the air today. But it is important to remember that lead does not break down over time. Therefore, you should know how to identify sources of lead in your home and how to keep your family safe.

Common Lead Hazards

The most common household lead hazards are lead-based paint, lead dust, and contaminated soil:

- Lead-based paint is a hazard if it is peeling, chipping, chalking, or cracking. Even lead-based paint that appears to be undisturbed can be a problem if it is on surfaces that children chew or that get a lot of wear and tear. These areas include—
  - Windows and window sills.
  - Doors and door frames.
  - Stairs, railings, and banisters.
  - Porches and fences.

  Even surfaces that have been covered with new paint or another covering can expose older lead-based paint layers when they become cracked or chipped. The older your home is, the more likely it is to contain lead-based paint.



Eighty-three percent of private housing and 86 percent of public housing built prior to 1980 contain some lead-based paint.

- Dust can become contaminated with lead when lead-based paint is dry scraped or sanded. Dust can also become contaminated when painted surfaces bump or rub together. Lead chips and dust can gather on surfaces and objects that people touch or that children put into their mouths.

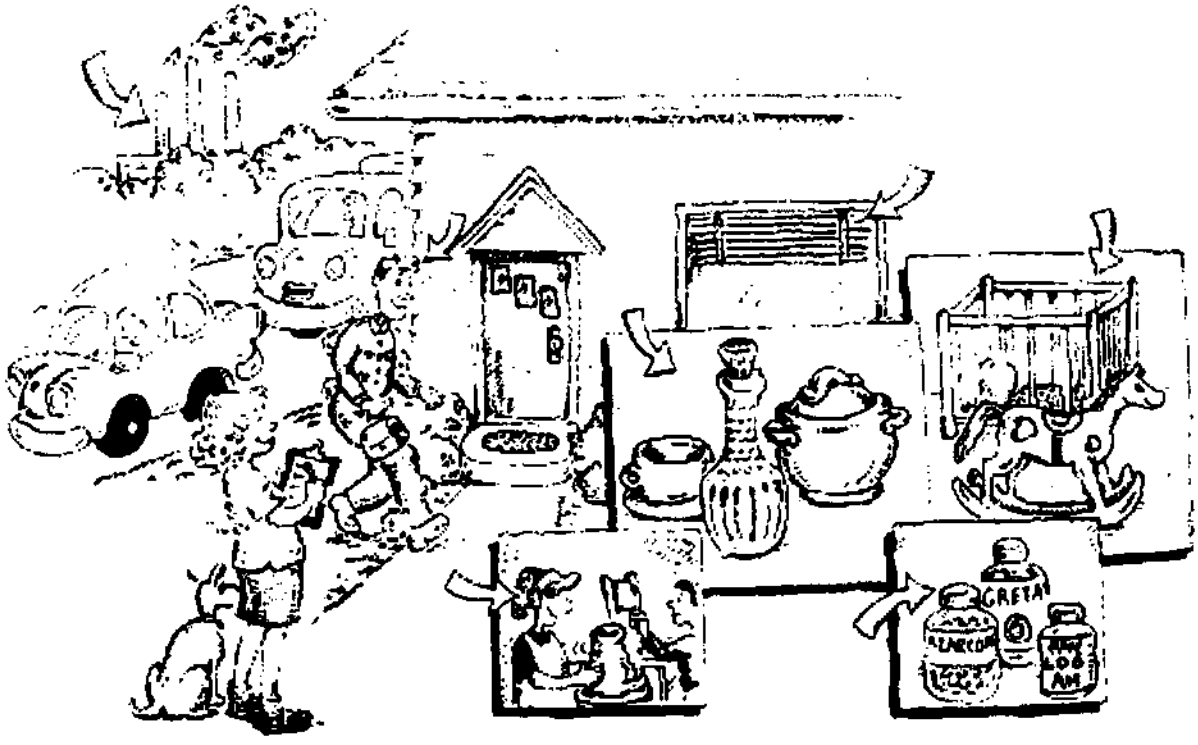
- Soil can become contaminated when exterior lead-based paint from houses, buildings, or other structures flakes or peels and gets into the soil. Soil near roadways may also be contaminated from past use of leaded gasoline in cars. Avoid these areas when planting vegetable gardens.

Other Sources of Lead Hazards

Although less common, a number of other lead hazards can be found in homes:

- Older plumbing fixtures, such as faucets, lead pipes, and pipes connected with lead solder, can contaminate drinking water. Older water well pumps made with brass or bronze parts that contain lead can also contaminate drinking water. The amount of lead in your water depends on the types and amounts of minerals in the water, how long the water stays in the pipes, the amount of wear in the pipes, the water's acidity, and its temperature. Lead can leach into water at any temperature, but the amount of lead can be much greater when the water is hot or warm, so don't drink or cook with water from the "hot" faucet. Carbon, sand, and cartridge filters do not remove lead from water, although some filters are "certified" for lead removal.

Boiling your water will not get rid of the lead.



- Some imported, non-glossy, vinyl miniblinds can be a lead hazard, especially to young children. Sunlight and heat can break down the blinds and may release lead-contaminated dust. Children who touch the miniblinds and put their fingers in their mouths may ingest the lead particles. It's best to remove these blinds if you have children who are 6 or younger. If you purchase new miniblinds, look for products with labels that say "New Formulation," "non-leaded formula," "no lead added," or "New! Non-leaded vinyl formulation."
- Painted toys and household furniture made before 1978 may be painted with lead-based paint. Do not let children chew on any older, painted toys or furniture, such as cribs or playpens.
- Lead-glazed ceramic ware, pottery, and leaded crystal can contaminate food and liquids stored in them.
- If you are exposed to lead at your job site, you could bring lead dust home on your clothes, shoes, hair, or skin.
- Lead smelters or other industries can release lead into the air.
- Hobbies such as making pottery, working with stained glass, or refinishing furniture can expose you to lead hazards. Try not to work on these hobbies in your home.
- Folk remedies that contain lead can cause lead poisoning. Two examples are "Greta" and "Azarcon," which are often used in Hispanic and Asian communities to treat an upset stomach. Another is "Pay loo ah," which is a red powder used to treat a rash or fever. Putting lead into a human body is dangerous, and it does not cure such ailments.

Health Effects of Lead

Q. How does lead get into my body?

A. It enters the body through the mouth or nose. Lead is not absorbed through the skin.

Lead is poisonous because it interferes with some of the body's basic functions. A human body cannot tell the difference between lead and calcium, which is a mineral that strengthens bones. Like calcium, lead remains in the bloodstream for a few weeks. Then it is absorbed into the bones, where it can collect for a lifetime.

Lead can affect anyone, but children ages 6 and younger face special hazards. In part, this is because the bodies of children in this age group develop rapidly. It is also because young children tend to put things in their mouths. More on this in Chapter 3.

It is important to know that even exposure to low levels of lead can permanently affect children. In low levels, lead can cause—

- Nervous system and kidney damage.
- Learning disabilities, attention deficit disorder, and decreased intelligence.
- Speech, language, and behavior problems.
- Poor muscle coordination.
- Decreased muscle and bone growth.
- Hearing damage.

While low-level exposure is most common, exposure to high levels of lead can have devastating effects on children, including seizures, unconsciousness, and, in some cases, death.

In the United States, approximately 900,000 children ages 1 to 5 have a blood-lead level exceeding the level of concern.

Although children are especially susceptible to lead exposure, lead can be dangerous for adults too. In adults, high lead levels can cause—

- Increased chance of illness during pregnancy.
- Harm to a fetus, including brain damage or death.
- Fertility problems (in men and women).
- High blood pressure.
- Digestive problems.
- Nerve disorders.
- Memory and concentration problems.
- Muscle and joint pain.

Q. How do I know if I have lead poisoning?

A. The only way to know if you have lead poisoning is to get a blood test from your doctor. Many people mistake the symptoms of lead poisoning for other common illnesses, such as a cold or the flu. Sometimes there are no symptoms at all.

Lead poisoning is not easy to detect. Sometimes no symptoms occur, and sometimes the symptoms are the same as those of more common illnesses. Some of the early signs and symptoms of lead poisoning in children are—

- Persistent tiredness or hyperactivity.
- Irritability.
- Loss of appetite.
- Weight loss.
- Reduced attention span.
- Difficulty sleeping.
- Constipation.

Lead Poisoning Prevention

Lead cannot be seen. Lead cannot be felt. But lead poisoning can be prevented. In most parts of the United States, state and local agencies are available to help you prevent lead poisoning. However, it is up to you to keep your family safe from lead hazards in your home.

It is never too soon to start protecting your family from lead hazards. The best thing you can do is lower the chances of exposure to lead in your home—both now and in the future. You can begin right now, by taking these steps:

1. Keep your home clean.
2. Wipe up any paint chips with a wet sponge or rag.
3. Ensure that your family members eat well-balanced meals.

More day-to-day tips for reducing exposure risks and the reasons why they help can be found in Chapters 2 and 3. Measures you can take to reduce lead exposure temporarily or to eliminate the problem forever are described in Chapters 6 and 7.

2

Reducing the Risk of Lead in Your Home

QUICK TIPS

Some simple steps—like keeping your home clean and feeding your family a well-balanced diet—will go a long way in preventing lead poisoning.

Going one step further and getting your home tested for lead can also help you and your family. This kind of test—known as a risk assessment—will tell you where lead hazards are and what to do about them.

Lead-based paint is usually not harmful if it—

- is not chipping or flaking AND
- is not bumped, rubbed, or chewed.

Lead-based paint can create harmful lead dust if it is chipping, flaking, bumped, rubbed, or chewed.

Testing for Lead

Should I Get My Home Tested?

If your home was built before 1978 and you have children ages 6 or younger, consider testing. A good time to do it is before you move into a new home or have a baby. You may also want to test your home if it has painted surfaces that are in poor condition. Before you begin home repair or remodeling projects, test any painted surfaces that will be removed or remodeled. Remember, disturbing lead-based paint can create a lead-poisoning hazard.

How Can I Get My Home Tested?

To test your home for lead, have either a risk assessment or a lead inspection done. Read on to find out which is better for your situation.

- A risk assessment. A risk assessor tells you if your home contains sources of lead exposure—such as peeling paint or lead dust. The risk assessor will give you a report that identifies lead hazards and ways to control them. If you suspect you have a lead problem, a risk assessment is usually the most appropriate way to test for lead hazards.

- An inspection. A lead inspector reveals the lead content of every painted surface in your home. An inspection will not tell you whether the paint is a hazard or how you should deal with it. The purpose of the inspection is to test each type of painted surface in your home and answer two questions:

  (1) Is lead-based paint present?

  (2) If lead-based paint is present, where is it located?

  It's important to know where lead-based paint is in your home so that, if disturbed by you or your contractor, additional lead hazards aren't created. An inspection is usually recommended if you plan to remodel, renovate, or disturb paint. It is also advised if you plan to abate the lead-based paint in your home.

Whether you hire an inspector or a risk assessor to do your testing, check his or her background. Those who have worked with public housing authorities and childhood lead poisoning prevention programs are usually well qualified. Beginning in August 1999, Federal law will require risk assessors and inspectors to be certified. For a list of certified lead inspectors and risk assessors in your area, call your state lead contact (see Appendix B) or one of these two organizations:

National Lead Service Providers' Listing System
Sponsored by the U.S. Department of Housing and Urban Development (HUD), the Lead Listing is a list of service providers who have received training from a state-accredited training provider. Get a list by calling (888) LEAD–LIST or by visiting the Lead Listing Internet site at www.leadlisting.org.

National Lead Information Center's Clearinghouse
Maintained by EPA, the clearinghouse sends testing and laboratory information to those who request it. The phone number is (800) 424–LEAD.

What Will I Get From the Testing?

Risk assessment: The risk assessor will identify lead-based paint hazards and suggest ways to reduce or control the hazards. For example, a risk assessor may suggest that you clean or dust more often, repair deteriorated lead-painted surfaces, or plant grass in areas with bare soil. The assessor may also suggest that you replace old windows, re-cover old floors, or remove soil. The risk assessor's report will show you what methods you can use to control hazards. It will also list an estimated cost of other actions you may take to prevent or control hazards.

Lead inspection: The inspector will give you a report that tells you whether your home contains lead-based paint and where it is found. The report will not tell you whether it is a hazard or how it should be treated.

What Are Home Test Kits?

Home test kits use chemicals to detect lead in paint, soil, and dust. Some kits can test water, dishes, glasses, and ceramics. A reaction occurs when the chemicals in the kit are exposed to lead.

Do not rely on home test kits. Studies show that they are not always accurate.

Does the Federal Government Recommend Home Test Kits?

No. The Federal Government does not currently recommend home test kits to detect lead in paint, dust, or soil. Studies show the kits are not reliable enough to tell the difference between high and low levels of lead.

What About Testing for Lead in Water?

If you think your water might contain lead, call either the EPA Safe Drinking Water Hotline at (800) 426–4791 or your local health department or water supplier to find out about testing your water. Meanwhile, use only cold water for drinking and cooking. Run tap water for 15 to 30 seconds (or until it feels much colder on your hand) before drinking it, especially if you have not used your water for several hours.

What About Testing for Lead in Dishes, Glasses, and Ceramics?

The Food and Drug Administration (FDA) can tell you how to best test for lead in dishes, cups, glasses, and other items. Contact the FDA at (800) FDA–4010 for information on testing these items.

Am I Required to Do Anything After Testing?

You may not be required to do anything, but read about the situations described below to see if either one applies to you:

- Some states and localities require the parents of children with high levels of lead in their blood to have the lead hazards abated by a certified contractor. (See Chapter 7 and Appendix D for more information on abatement.)
- If you are a home seller or a landlord, you must reveal any known lead-based paint hazards to potential buyers or renters. (For more information on this, see page 14.)

If you decide to hire a professional firm to control lead hazards, you may want to hire someone other than the person who did the testing.

How to Reduce Your Family's Risk of Lead Poisoning

What Can I Do Now to Protect My Family?

If you think your home has lead-based paint, take these simple steps to help protect your family:

- Keep your home clean by washing floors, window frames, window sills, and other surfaces weekly. Use a mop or a sponge with a solution of water and an all-purpose cleaner or a cleaner made specifically for lead to clean up dust. Clean up paint chips using a wet sponge or rag. (For information on repairing chipped surfaces, see Chapter 6.)
- Completely rinse sponges and mop heads after cleaning dirty or dusty areas.

- Clean or remove shoes before entering your home to avoid tracking in lead from soil.
- Have children play in grassy areas instead of soil.
- Never allow children to play under windows or around painted surfaces that often rub together or get bumped.
- Make sure children wash their hands after playing outside and before eating or going to bed.
- Keep play areas clean. Wash bottles, pacifiers, toys, and stuffed animals regularly.
- Keep children from chewing on painted surfaces, such as window sills, cribs, or playpens.
- Make sure you and your family eat a well-balanced diet that is low in fat and high in calcium and iron. Include foods such as fish, green vegetables, milk, and cheese. (More on why this helps in Chapter 3.)
- Use cold water for drinking or cooking since lead is more likely to leach into warm or hot water.
- If you rent property, tell your landlord about peeling or chipping paint.

How Can I Reduce or Get Rid of the Lead-Based Paint Hazards in My Home?

In addition to the day-to-day steps outlined in the previous section, you can prevent lead poisoning by using either interim controls, abatement, or both.

- Interim controls. Interim controls are treatments that temporarily reduce the risk of exposure to lead hazards. For example, you can repair damaged painted surfaces or plant grass to cover soil. (For more information on interim controls, see Chapter 6.)
- Abatement. Abatement is the permanent elimination of lead-based paint hazards. The four methods below are for abatement of structural components in housing.
  - Replacement. The removal of lead-painted items—such as windows, doors, and trim—and the installation of new, lead-free items.
  - Enclosure. The covering of lead-painted surfaces with a stiff material—such as paneling or wallboard—to prevent lead dust from getting into the environment. Enclosure also prevents contact with the lead-based paint.
  - Encapsulation. The covering of lead-painted surfaces with a special liquid coating. Once it dries, the coating prevents contact with the lead-based paint and the spread of lead dust.
  - Paint removal. The removal of paint done either in your home or at a paint stripping facility. Methods often used include wet scraping, wet planing, or chemical stripping.

You can perform many simple interim controls yourself, but—because performing an abatement can be dangerous—only a certified contractor should perform an abatement. Call your state lead contact (see Appendix B) or the HUD Lead Listing at (888) LEAD–LIST for a list of certified contractors in your area.

Q. What is the difference between interim controls and abatement?

A. Interim controls temporarily reduce lead hazards. They may solve the problem, at least until the condition of the affected area worsens. If that happens, the hazard needs to be reevaluated. Abatement permanently eliminates the lead hazard.

Do not try to perform an abatement in your home yourself. Always use a certified contractor. If not properly performed, an abatement can actually increase the risk of exposing your family to lead.

Routine Cleaning and Maintenance

It is very important to care for the lead-painted surfaces in your home. Lead-based paint in good condition is usually not harmful.

What Causes Lead Dust?

Certain household activities are likely to disturb lead-painted surfaces and contaminate dust, including repeatedly opening and closing windows and bumping furniture or other objects against painted walls. Dust can also become contaminated during many home improvement

activities. If you must perform any of the activities that follow, do them carefully—and don't do them often! These activities include—

- Nailing, drilling, or screwing into lead-painted surfaces.
- Prying painted surfaces apart.
- Cutting, sawing, or chopping lead-painted surfaces.
- Tearing out walls.
- Making holes in walls or ceilings to access pipes or install electrical outlets.
- Scraping, sanding, brushing, or using a heat gun on painted surfaces before repainting. Heat guns should not be warmed above 1100° F. If heated above this temperature, lead-based paint can give off toxic fumes.

Although the lead-based paint in your home may be in good condition, if it is on a surface that is often rubbed, bumped, or chewed, it can easily peel and flake and can be harmful.

For more information on safe work practices when repairing and remodeling lead-painted surfaces, see Chapter 4.

How Do I Prevent Lead Dust?

Follow three important rules when dealing with lead-based paint:

- Do not dry scrape or sand most lead-painted surfaces. Instead, wet scrape areas by misting the surface with water before and during scraping. (More on this in Appendix D.) Limit dry scraping to areas that cannot get wet, such as those around electrical outlets.
- Try to control dust during work on lead-painted surfaces by using the equipment and following the precautions listed in Chapter 4.
- Use a wet sponge or a mister to dampen and wipe down surfaces when cleaning. Never dry sweep or dust lead-painted surfaces.

What Are the Best Ways to Clean Dust?

There are ways to clean your home that will help you reduce or prevent your family's exposure to lead dust. Here are some tips on how to clean—and how not to clean—your home. It's best to follow these steps weekly.

Cleaning Uncarpeted Floors

Do use—

- Damp or wet mopping.
- Standard "sponge" or "string" type mops and an all-purpose cleaner or a cleaner made specifically for lead.
- Standard vacuum cleaners if no visible dust or debris from chipping or flaking paint is present.

Don't use—

- Mops with a "scrubber" strip attached.
- Powered buffing or polishing machines.
- Vacuums with "beater bars" that may wear away the painted surface.

Cleaning Carpets and Rugs

Do use—

- "Wet scrubbing" methods to remove stains.
- Steam cleaning methods.
- Standard vacuum cleaners if no visible dust or debris from chipping or flaking paint is present.

Don't use—

- Dry sweeping of surface dust and debris.
- Shaking or "beating" of carpets and rugs.

Cleaning Walls

Do use—

- Soft cloths to wet wipe walls.
- All-purpose cleaner or a cleaner made specifically for lead.

Don't use—

- Steel wool, scouring pads, and abrasive cleaners.
- Solvent cleaners that may dissolve paint.

Cleaning Other Painted Surfaces

Do use—

- Soft cloths.
- All-purpose cleaner or a cleaner made specifically for lead.

Don't use—

- Abrasive cleaners and scouring pads.
- Solvent cleaners that may dissolve the paint.
- Excessive rubbing of spots to remove them.

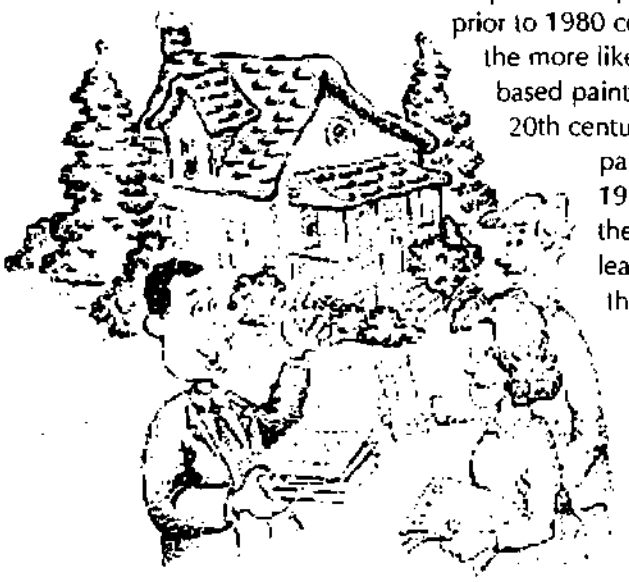
Dusting

Do use—

- Disposable, non-abrasive dusting cloths or "dusters."

New Rules for Sellers and Landlords

Lead-based paint can be found on the painted surfaces—inside and outside—of many residences built before the 1978 ban. The U.S. Department of Housing and Urban Development (HUD) estimates that 83 percent of private housing and 86 percent of public housing built prior to 1980 contain lead-based paint. In addition, the older the home, the more likely it is to contain lead-based paint. That's because lead-based paint was widely used during the first several decades of the 20th century. It was not until the 1950's that the use of lead-based paint in homes began to decline noticeably. During the 1950's, latex paint—which seldom contains lead—became the dominant paint for interior walls. Although the use lead-based paint in homes continued to decline throughout the 1960's and 1970's, its use was not stopped altogether until it was banned in 1978.



To help protect people against lead hazards in homes, EPA and HUD developed the Real Estate Disclosure Rule. As of December 6, 1996, the owner of any home built before 1978 must follow guidelines set out by the Rule and inform possible buyers and renters about known lead-based paint hazards in the home.

The Real Estate Disclosure Rule requires that the owner of any home built before 1978 inform potential buyers and renters about known lead-based paint hazards in the home.

If you plan to buy a home built before 1978, the seller must—

- Tell you about any known lead-based paint or lead-based paint hazards in the home.
- Give you any records or reports about lead-based paint hazards in the home.
- Give you a copy of the EPA pamphlet titled Protect Your Family From Lead in Your Home. The pamphlet briefly describes lead hazards and lead poisoning.
- Give you a 10-day opportunity to test the home for lead.
- Include certain warning language in the sales contract and a signed statement verifying that all requirements have been met.
- Keep the signed statement for 3 years.

The seller is not required to—

- Test the home for lead.
- Remove any lead-based paint or lead-based paint hazards discovered during any testing that you have conducted.

If you plan to rent housing built before 1978, the landlord must—

- Tell you about any known lead-based paint or lead-based paint hazards in the home.
- Give you any records or reports about lead-based paint hazards in the home.
- Give you a copy of the EPA pamphlet titled Protect Your Family From Lead in Your Home. The pamphlet briefly describes lead hazards and lead poisoning.
- Include certain warning language in the rental contract and a signed statement verifying that all requirements have been met.
- Keep the signed statement for 3 years.

The landlord is not required to—

- Test the home for lead.
- Remove any lead-based paint or lead-based paint hazards discovered during any testing that you have conducted.
- Give you 10 days to test for lead.

If you plan to buy a home built before 1978, the seller must give you 10 days, or another mutually agreeable period, to conduct a lead inspection. If you plan to rent a home built before 1978, the owner does not have to give you an opportunity to test for lead.

3

Protecting Your Children From Lead Poisoning

QUICK TIPS

- A child does not have to eat paint chips to get lead poisoning. It is more common for a child to get lead poisoning by swallowing lead dust.
- Children who eat healthy foods are less likely to get lead poisoning.
- Your family, especially your children, should be tested for lead. It is the only way to detect lead poisoning.

By performing some simple, everyday tasks, you can reduce your children's exposure to lead.

Building Good Habits and Safe Surroundings

A child does not have to eat paint chips to get lead poisoning. It is more common for a child to swallow lead dust or soil that contains lead from paint. How does this happen? First, dust or soil settles on the hands or toys of children as they play. Then, as children commonly do, they put their hands and their toys in their mouths, and they swallow the dust or soil.

Good habits and a clean home will go a long way toward reducing the risk of exposure to lead. Good food can lessen the effects of exposure. As a parent, you have a responsibility to help your children develop good habits. You also have a responsibility to do what you can to provide your children with good nutrition and safe surroundings. Here are guidelines you can follow every day:

- Make sure your children eat at least three meals a day. Less lead is absorbed when children have food in their systems.
- Give your children foods high in iron and calcium, such as milk, cheese, fish, peanut butter, and raisins. When a child does not have enough iron or calcium in his or her body, the body mistakes lead for these nutrients. A diet lacking protein, vitamin C, and zinc may also cause increased blood-lead levels.
- Avoid giving your children fried and fatty foods. These foods allow the body to absorb lead faster. Cut down on fat by baking, broiling, or steaming food.

- Don't store food or liquid in lead crystal glassware or imported or old pottery.
- Teach children to wash their hands before they eat or sleep.
- Make sure your children do not have access to peeling paint and do not chew on painted surfaces such as cribs, playpens, or window ledges.
- Keep your home clean. At least once a week, wash areas such as hard surface floors, baseboards, and window sills, especially if your home was built before 1978. Use a solution of water and an all-purpose cleaner or a cleaner made specifically for lead.
- Wash children's toys, bottles, and pacifiers often, and always wash them after they fall on the floor. Stuffed toys in particular accumulate dust and should be washed often.
- Encourage your children to play in grassy areas instead of dirt, which sticks to fingers and toys. Also, do not let them eat dirt.
- Teach your children about the dangers of lead and their role in keeping themselves safe. Use stories, role-playing, and songs to help your children recognize sources of lead and learn prevention behaviors. Explain how good nutrition prevents lead poisoning, and help them choose healthy foods.

Testing You and Your Family for Lead Poisoning

The best thing to do for your child is to test the level of lead in his or her body. This is done using a simple blood test. Your doctor or your local health center can perform the test and explain the results.

Here are some tips on when to test, and how often:

- If your child is at risk of lead exposure, have the child tested at the age of 6 months. (A child is at risk of lead exposure if—for example—he or she lives in a home built before 1978 that has peeling or chipping paint, or if the adults in the home work with lead.) Repeat the test every 6 months until the age of 2 years. After that, have the child tested once a year until age 6.
- If your child is not at risk of lead exposure, have the child tested for the first time at the age of 1 year, and again at age 2.

If your child has been tested and has a blood-lead level at or above 10 micrograms per deciliter (ug/dl), you may need to take certain preventive measures. In some cases, when lead poisoning is severe, a drug treatment called chelation can be used. Chelation gradually removes lead from the body. It should be only administered under the strict supervision of a physician.

When your doctor gives you the results of your blood test, use the following chart. It will help explain what the numbers mean.

[illegible]	[illegible]
0–9 micrograms per deciliter (ug/dl)	**Continue routine testing. Not considered lead poisoning.**
10–14 ug/dl	**Rescreen frequently and consult with your doctor about prevention measures. (See Lead Poisoning Prevention in Chapter 1.)**
15–19 ug/dl	**Determine the lead source and seek advice about proper diet.**
20–44 ug/dl	**Obtain a medical checkup, determine the lead source, and seek advice about proper diet. Children may need medical treatment (chelation).**
Above 44 ug/dl	**Get immediate care. Considered serious lead poisoning.**

Choosing a Child-Care Provider

Although your home may be free of lead-based paint hazards, your child could still be exposed elsewhere. It is important that any place in which your child spends more than 10 hours a week be free of lead hazards. If you take your child to a day-care center, look around the inside and the outside of the day-care center for lead hazards.

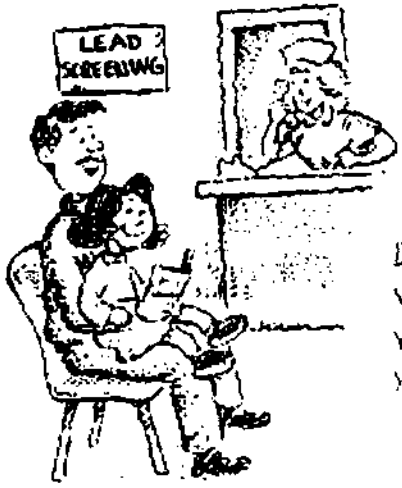
When checking the facility, look at—

- Interior painted areas. Examine walls and interior surfaces to see if the paint is cracking, chipping, or peeling.
- Exterior painted areas. Check exterior paint as well; it can flake off and contaminate nearby soil where children may play.
- Surrounding areas. Be sure there are no large structures nearby with peeling or flaking paint that could contaminate the soil around play areas. Examples include bridges and water towers.
- Cleaning practices. Make sure the staff washes any pacifiers, toys, or bottles that fall on the floor. Also, make sure the children are made to wash their hands thoroughly after playing outside and before eating or sleeping.
- Play areas. Look to see if areas where children play are dust-free and clean.
- Old painted toys and furniture. Make sure the paint is not cracking, chipping, or peeling.

The best thing to do for any family member—of any age—who may have been exposed to lead is to have the level of lead in that person's body checked.

What Your Children Need to Know

Lead can make young children very sick. It is important to teach them how to prevent lead poisoning. These pictures will help you show your children how to stay safe and healthy.



Don't be afraid to visit your doctor.

Your doctor can tell you if you have lead in your body.

Don't eat too many fried or fatty foods.

Eating too many fatty foods will increase the amount of lead that your body stores.

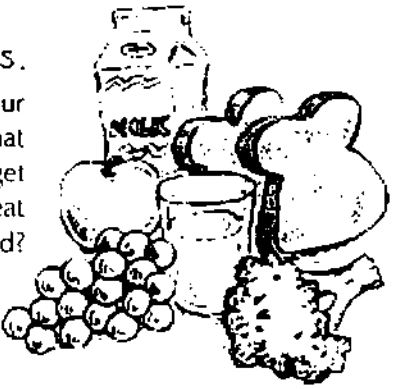
Don't put things other than food in your mouth.

Play in grassy areas.
Do not play in dirt!

Sometimes, dirt contains lead and can make you sick.

Eat healthy foods.

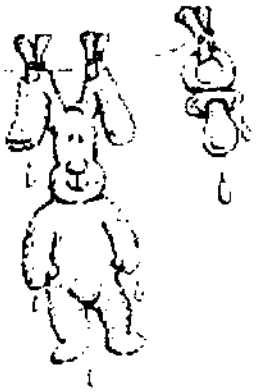
Healthy food is good for your body, but did you know that you are less likely to get sick from lead if you eat healthy food?



Wash your hands often.

Always wash your hands before eating.

Make sure your parents wash your toys



4

What You Need to Know Before Working on Your Home

QUICKTIPS

Using the right equipment when working with lead will keep you and your family safe from dangerous lead dust.

One of the most important pieces of equipment to use is a respirator with a HEPA filter on it. The respirator and filter will remove lead particles from the air you breathe.

Another important piece of equipment is a type of thick plastic sheeting called six-mil polyethylene plastic sheeting. The plastic must cover all work areas to prevent lead dust from spreading throughout your home.

Equipment

Before beginning a remodeling, renovation, or interim control project, it is important to plan. For example, decide where you will begin and how long the project will take. It is also important to get the right equipment to protect you and your family from lead exposure. The following section will explain the equipment you will need and how to use it.

- NIOSH-certified respirator with a HEPA (High-Efficiency Particulate Air) filter. You should wear a properly fitted respirator equipped with a HEPA filter, which is always purple, when doing any work that might create lead dust. A respirator will filter lead dust particles out of the air you breathe. You can buy respirators at many industrial supply centers or home improvement stores for about $20–$30. When you buy your respirator, make sure you have a "fit check." Most stores that sell respirators have salespeople who can perform this test.

A fit check has two steps: (1) a positive-pressure fit check, and (2) a negative-pressure fit check. Have the fit check done when you buy the respirator, and repeat the test yourself every time you wear your respirator.

(1) Positive-pressure fit check. Use the palm of your hand to cover the respirator valve on your chin. Gently blow out. The respirator should balloon out slightly and the seal should tighten. If air leaks out and the seal does not tighten, you need to adjust the respirator or try another size.

(2) Negative-pressure fit check. Cover the two filters with both hands and inhale. The respirator should tighten to your face and you should not feel any air flowing in. If you feel air coming in, the respirator does not fit properly. You need to adjust it or try another size.

Keep the following points in mind when buying and using a respirator:

- Get the right size.
- If you are working with lead, your respirator must be equipped with a HEPA filter.
- Perform negative- and positive-pressure fit checks every time you use your respirator.
- If you have a beard, are not clean-shaven, or have a broken nose, a respirator cannot completely seal to your face. Dust particles can leak in.
- If you have gained or lost weight since buying your respirator, it may no longer fit. You may have to purchase a different size.
- Never take off your respirator until after you have removed your outer protective clothing.

Q. Should I wear any protective gear when doing something in my home that may expose me to lead—such as repairs or remodeling or performing an interim control?

A. You should wear a respirator to prevent lead dust and particles from getting into your lungs. It must be equipped with a HEPA filter. Traditional dust masks will not prevent lead particles from getting into your lungs.

- HEPA filter-equipped vacuum cleaner. This is a special type of vacuum that removes small lead particles from floors, window sills, and carpets, and stores them inside the vacuum cleaner. Household vacuums will not work; their exhaust systems release the lead particles into the air. You can rent a HEPA vacuum from stores that carry remodeling tools. Some laboratory safety and supply catalogs sell them starting at about $300. Remember—when you finish vacuuming—carefully empty the dust collected in the vacuum cleaner, being sure to dampen it with water first to control the spread of the collected dust.
- Wet-sanding equipment: wet-dry abrasive paper, and wet-sanding sponges for "wet-method." These can be purchased at hardware stores.
- All-purpose cleaner or a cleaner made specifically for lead. A solution of water and an all-purpose cleaner or a cleaner made specifically for lead should be used to clean up lead dust from work areas. Use one bucket for the cleaning solution and one bucket for rinsing. Change the rinse water frequently (at least once for each room being cleaned) and replace rags, sponges, and mops often.

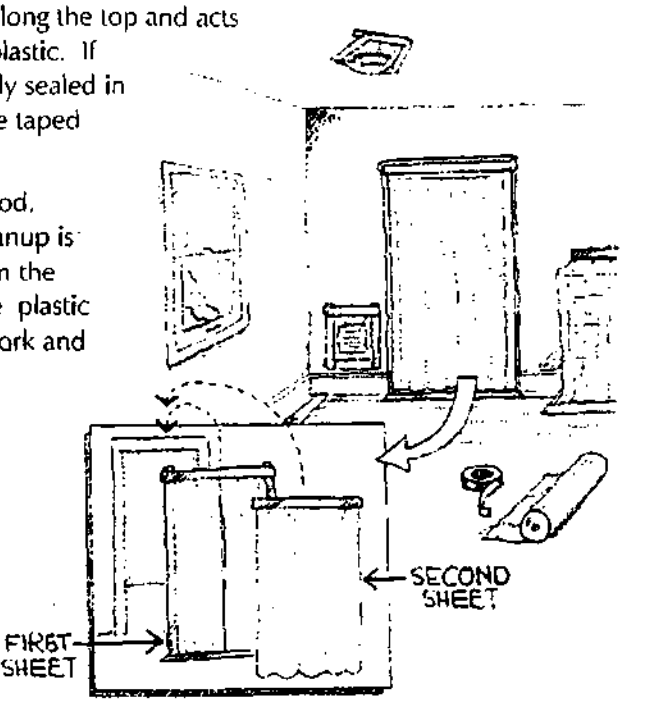
- Six-mil polyethylene plastic sheeting. This thick, plastic sheeting is used to cover the area in which you are working. It can be purchased at hardware stores or lumber yards. The label should say that the plastic is made of polyethylene and is 6 mils thick.
- Duct tape. You will need duct tape to completely seal the plastic in place.
- Protective clothing. To keep lead dust from being tracked throughout your home, wear clothes such as coveralls, shoe covers, hats, goggles, face shields, and gloves. These items are available through laboratory safety equipment supply catalogs and vendors. Inexpensive disposable suits can sometimes be purchased at paint stores.

How to Work Safely

Whether you are renovating, remodeling, or performing interim controls, you must follow these safeguards to prevent lead dust from spreading throughout your home:

- Construct an airlock at the entry to the work area. The airlock consists of two sheets of the thick plastic. One sheet is completely taped along all four edges. The tape must extend all the way around the top, two sides, and the floor. This plastic sheet is then cut down the middle. The second sheet is only taped along the top and acts as a flap covering the slit in the first sheet of plastic. If two entryways exist, one should be completely sealed in plastic. As an alternative, the doorway can be taped closed on all sides.
- Remove all furniture, area rugs, curtains, food, clothing, and other household items until cleanup is complete. Items that cannot be removed from the work area should be tightly wrapped with the plastic sheeting and sealed with duct tape until all work and cleanup is complete.
- Turn off forced-air heating and air-conditioning systems when remodeling, renovating, or performing interim controls. Then cover the heating and air conditioning vents with the plastic sheeting. Tape the sheeting in place with duct tape. Windows should be kept closed unless volatile chemicals will be used.

Keep all children, pregnant women, and pets away from the work area.



Do not eat, drink, or smoke in the work area.

- Cover openings, such as gaps around pipes and between floorboards, with plastic or duct tape to prevent lead dust from sifting down to lower floors and rising to upper floors.
- Cover exposed surfaces that you cannot remove with the plastic sheeting. Examples include floors, carpeting, counter tops, and shelves.
- Tape around the door seals of refrigerators to prevent dust from getting into the food inside.
- Spray water on lead-painted surfaces to keep dust from spreading.

5

Remodeling and Renovation

QUICK TIPS

- Lead-based paint is most often found around windows, in kitchens, and in bathrooms.
- Home projects done on lead-painted areas can create harmful lead dust.
- If you think your home has lead-based paint, hire a professional to test for lead before beginning work.
- If your home has lead hazards, do not perform any renovations or remodeling yourself. Hire a trained contractor who knows how to work safely with lead.

Remember this important rule: Before beginning work, hire a professional to test affected areas and see if lead hazards exist. Call your state lead contact (Appendix B) or the HUD Lead Listing at (800) LEAD-LIST for a list of qualified consultants in your area who perform testing services.

If you have already completed repairs or remodeling that could have released lead-based paint or dust—

- Have your children ages 6 or younger tested for lead. Call your doctor or your local health department to schedule testing.
- Keep children away from dust and paint chips.
- Clean up all dust and chips with wet mops and rags. Pay special attention to floors and window troughs.

If the test reveals lead-based paint in your home, it is best to have any repair or remodeling work done by a renovator who knows how to protect your family from exposure to lead dust. It is best to hire one who has training and experience in dealing with the hazards of remodeling or renovating homes with lead-based paint.

If you chose to do this work, you should follow all of the work practices and safety precautions in this guide. These include the recommendations in this chapter and in Chapter 8 on cleanup.

Replacing or Working on Windows

Window sills and frames on homes built before 1978 can have high amounts of lead-based paint. Because these items are seldom replaced, paint tends to build up on them. To remove a window safely, follow these basic safety precautions:

- Tape the thick, plastic sheeting (mentioned on page 25) over the entire inside window opening.
- Cover the floor under the window with the plastic sheeting to catch any falling dust. Also, cover the ground outside the window with the plastic sheeting to catch dust and chips.
- Spray the window sill and frame with water to reduce the dust.
- Remove the window unit from the outside, if possible. If you must remove it from the inside, make sure you cover all entryways into the room in which you are working with the plastic sheeting.
- Clean up and dispose of all waste according to the directions in Chapter 8.

Be careful when performing the following renovation and remodeling activities. They can disturb lead-painted surfaces and create lead dust.

- **Removing paint**
- **Sanding**
- **Patching**
- **Scraping or tearing down walls**
- **Making holes in walls or ceilings to gain access to pipes or install electrical outlets**
- **Removing or replacing windows, baseboards, doors, plumbing fixtures, heating and ventilation duct work, or electrical systems**

Preparing Surfaces for New Paint or Wallpaper

Preparing walls and other surfaces for painting, staining, or papering can create lead exposure risks. Follow these good work practices to reduce your risk of exposure to lead:

- Cover the floor and furniture with the thick, plastic sheeting.
- Avoid sanding lead-painted surfaces whenever possible. If you must sand, use a sander with a vacuum attachment connected to a HEPA filter-equipped vacuum cleaner or use a wet-sanding sponge.
- Wipe the area you are sanding often and rinse the sponge in a bucket of water. Strain out any paint chips and dispose of them in heavy-duty plastic bags.
- Wash the walls with a solution of water and an all-purpose cleaner or a cleaner made specifically for lead. Let them dry before painting or papering. Never power-wash or blast lead-painted surfaces inside your home; this can contaminate dust, which can spread to other areas of your home.
- Heat guns may be used to remove paint, but do not use those that operate above 1100° F.

Many traditional methods of preparing a painted surface for repainting, refinishing, or restaining can poison both children and adults if the paint is lead-based. Therefore, they should never be used by homeowners. These methods include—

- Open-flame burning or torching.
- Machine sanding or grinding without a HEPA vacuum exhaust tool.
- Uncontained hydroblasting or high-pressure washing.
- Abrasive blasting or sandblasting without a HEPA vacuum exhaust tool.
- Use of dry scrapers, belt-sanders, propane torches, or heat guns that operate above 1100° F.

Removing or Replacing Carpeting

If you plan to remove or replace your carpet as part of a remodeling job, take the following steps to avoid spreading lead dust:

- Mist the entire surface of the carpet with water to keep dust down.
- Roll the carpet inward to avoid spreading dust to other areas.
- Wrap carpet and pad in the thick, plastic sheeting. Tape seams closed with duct tape.
- Vacuum floor with a HEPA filter-equipped vacuum cleaner after the carpet is wrapped but before you remove it.
- HEPA vacuum the floor again after you remove the carpet.

Performing Duct and Plumbing Work

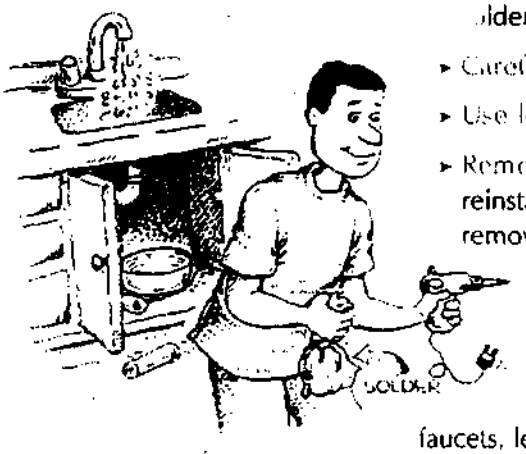
Duct Work

Heating, ventilation, and air-conditioning ducts can collect dust over the years. If you suspect that the dust contains lead, follow these steps when replacing or cleaning the ducts:

- Cover the floor under the ducts with the thick, plastic sheeting to catch any falling dust.
- Use a HEPA filter-equipped vacuum cleaner to remove dust from inside the ducts before starting work.
- Rinse the duct pieces in an area away from your home before putting them back in place. If you are going to dispose of the old duct pieces, follow the cleanup instructions in Chapter 8.

Plumbing

Disturbing lead-soldered pipes can knock loose pieces of lead solder that can get into your drinking water. Follow these precautions when working with plumbing:



- Use enough ventilation to avoid inhaling dangerous fumes from soldering.
- Carefully throw away solder pieces in a tightly sealed trash bag.
- Use lead-free solder when working on drinking water plumbing.
- Remove faucet aerators and clean out any debris before reinstalling them. Look carefully for grit or pieces of solder and remove them.
- Flush the stored pipes of any pieces of solder by letting the water run for several minutes with the aerators removed.

Also, consider removing older plumbing fixtures—such as faucets, lead pipes, or pipes connected with lead soldering—and replacing them with lead-free ones. Consult a plumber or plumbing materials distributer for more information.

Performing Minor Repairs

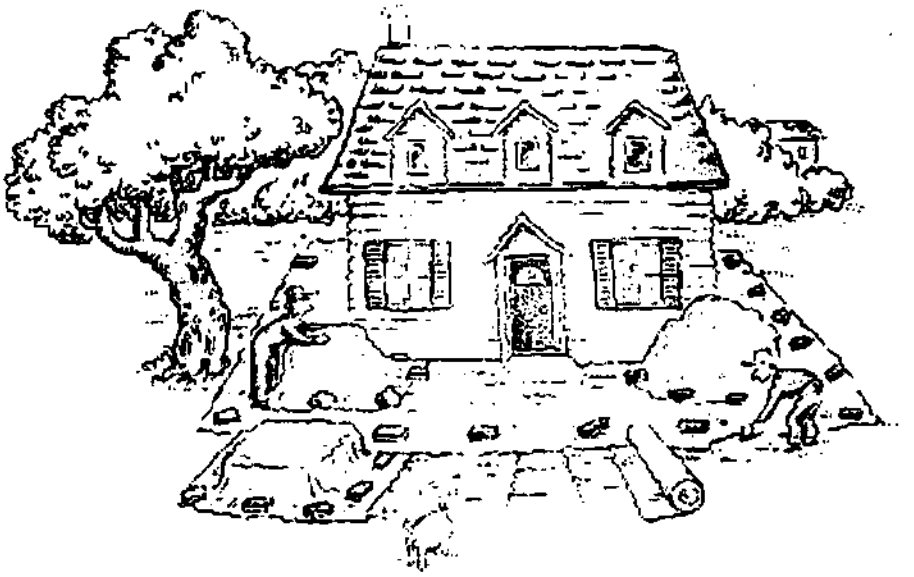
Performing minor repairs on lead-painted surfaces can expose you to lead hazards. If you plan to make minor repairs, such as repairing a door, drilling holes in walls, or sawing into painted wood or plaster, follow these steps:

- Cover the floor under the work area with the thick, plastic sheeting to catch any sludge or dust.
- Spray the work area surface with water to reduce the amount of dust generated during the repair.
- To eliminate friction points on a door, first mist the door, then remove the door to plane it. Keep door surfaces being planed wet during repair. Replace the door when the work is complete.
- After making the repair, use a HEPA-filter equipped vacuum cleaner to vacuum all surfaces within 5 feet of the work area.

Working on the Exterior of Your Home

Working on the outside of your home can produce dust, paint chips, larger pieces of material, and liquids that contain lead. To prevent contaminating the areas around your home—

- Cover the ground and any flowers or plants with the thick, plastic sheeting to catch dust and trash. It should extend at least 5 feet from the base of your house and an additional 3 feet for each additional story. Use bricks or rocks to hold the edges of the plastic sheeting in place.
- Cover sandboxes with the plastic sheeting. If possible, move play equipment at least 20 feet away from the work area.
- Close all windows, including windows in adjacent dwellings, within 20 feet of the work area. If dust gets inside, use wet mops and rags to clean it up.
- Anchor ladders securely to the ground. Do not put them on the thick, plastic sheeting, which can be punctured.
- Make one lead-safe entryway available to residents at all times. Do not treat front and rear entrances simultaneously if there is not a third doorway.
- Avoid working in windy conditions. Strong winds can blow lead dust to areas that are not covered. If the chips and dust are blowing off the plastic sheeting, set up a barrier to block the wind or do the work another day.



6

Interim Controls

QUICK TIPS

There are ways you can temporarily control exposure to lead-based paint, dust, and soil. They are called interim controls.

Keep in mind interim controls will not get rid of lead hazards forever. They can, however, help cut down on the risk of exposure.

Lead dust in your home can be harmful to you and your family. It should be removed.

Interim controls provide a useful alternative for homes that cannot be abated right away.

Safe Management of Lead-Based Paint in Your Home

Interim controls are actions you can take to reduce lead hazards in your home without hiring an abatement contractor. They are less expensive than abatement and a good alternative if you cannot afford abatement, but it is very important to remember that the results are only temporary. Nevertheless, if maintained properly, interim controls can protect you and your family for a long time. (See Chapter 7 and Appendix D for more information on performing an abatement to permanently contain or remove lead hazards.)

A list of interim controls follows. They can be used separately or together:

- Removing lead dust.
- Repainting lead-based painted surfaces.
- Repairing friction and impact surfaces.
- Preventing access to soil hazards.

ADVANTAGES of Interim Controls

- **Less expensive than abatement.**
- **Can be implemented immediately.**

DISADVANTAGES of Interim Controls

- **Lead-based paint remains in housing.**
- **Continuing expense, if done regularly.**
- **Requires ongoing monitoring of paint condition and dust levels.**

When Interim Controls Will NOT Work

Interim controls will not work if—

- The windows, doors, porches, or interior or exterior walls are seriously deteriorated or are subject to excessive moisture.
- The windows, doors, porches, or interior or exterior walls are not sound (which would cause the treatment to fail rapidly).

If any child in the home has an elevated blood-lead level, many states and localities require you to have the home abated by a certified contractor. Contact your state lead program contact (Appendix B) for more details.

Lead dust in your home can be hazardous to you and your family and should be removed.

Although interim controls will not rid your home of lead-based paint hazards forever, they can help you reduce the risk of exposure if you do them right and check your work often. To ensure success when you perform any type of interim control, it is recommended that you—

- Surround your work area with thick, plastic sheeting (mentioned on page 25) to avoid spreading lead dust to other parts of your home.
- Hire a certified contractor to conduct a clearance examination once you have finished your work. This is not required, but a contractor can determine if you successfully completed the interim control action.
- Check your interim control work once a year. For example, if you have performed an interim control of lead-based paint and see signs of peeling or flaking, you may need to redo the work.

Removing Dust

Dust removal is a continuing process. You begin with an initial treatment and then follow up with re-cleaning as needed. Dust removal is always a part of lead hazard control measures, whether done alone or as part of cleanup following other work.

Lead dust can be found on surfaces and in cracks throughout your home. Windows, worn floors, carpets, and upholstered furnishings seem to collect most of the lead dust. It is very hard to clean these surfaces thoroughly, and dust settles on them rapidly after they are cleaned.

Major Dust Collectors and Potential Dust Traps

Interior	Exterior
Window sills	Porch swings
Floors or steps	Window troughs
Cracks and crevices	Steps
Carpets and rugs	Exposed soil
Mats	Sandboxes
Upholstered furnishings	Window coverings
Radiators	Heating, ventilation, or air conditioners
Grates and registers	

Removing Lead Dust Inside Your Home

It is very hard to remove lead dust without specialized equipment. You will need to use a vacuum equipped with a HEPA filter combined with wet cleaning methods.

1. Vacuum the surface with a HEPA filter-equipped vacuum cleaner. This special type of vacuum will trap lead particles and prevent them from being released back into the air. A household vacuum will not do this. Remember—when you finish vacuuming— carefully empty the dust collected in the vacuum cleaner, being sure to dampen it with water first to control the spread of collected dust.

2. Wet clean exposed areas with a solution of water and an all-purpose cleaner or a cleaner made specifically for lead. Use one bucket for the cleaning solution and one bucket for rinsing. Change the rinse water frequently (at least once for each room being cleaned) and replace rags, sponges, and mops often. Clean the surface until no dust is visible. After cleaning, rinse the surface with clean water and a new sponge or cloth.

At the same time that you undertake a cleaning project, have all the drapes and curtains professionally cleaned, and replace the filters in heating and air-conditioning units. Have your rugs and carpets

professionally cleaned. If you cannot have them cleaned professionally at this time, clean your carpets in the following manner:

Because removing lead dust from older carpets is difficult, it may be best to remove the carpets altogether.

For rugs and carpets that can be folded over:

- HEPA vacuum the carpet.
- Fold the carpet over in half and HEPA vacuum the bottom side of the carpet.
- Vacuum the top side of the carpet again.
- If there is foam padding under the carpet, clean both sides of the padding.
- Vacuum the floor under the carpet.

For carpets that cannot be folded over (such as wall-to-wall carpeting):

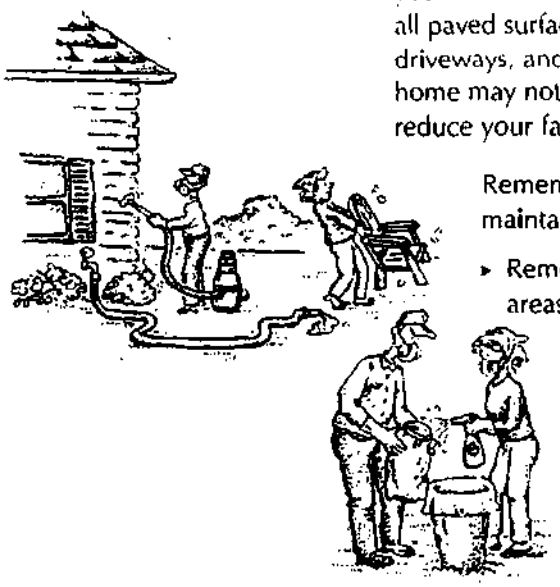
- Vacuum the carpet in a side-to-side direction.
- Vacuum the carpet in a side-to-side direction, opposite the first direction.
- Steam clean the carpet using a solution containing detergent specifically made to reduce static between the carpet and lead dust.

For upholstered furnishings:

- HEPA vacuum each surface three to five times.

Removing Lead Dust From the Exterior of Your Home

Lead in exterior dust can be dangerous because it can be tracked inside your home. You need to remove as much dust and dirt as possible from all paved surfaces on your property (such as sidewalks, patios, driveways, and parking areas). Removing all lead dust outside your home may not be possible, but by following some simple steps you can reduce your family's exposure to exterior lead dust.



Remember—These measures need to be repeated often to maintain safe lead dust levels outside your home:

- Remove all large items, such as outdoor furniture, from the areas you are going to clean. Dampen the areas with water to control the spread of lead dust.
- Vacuum all hard surfaces with a HEPA filter-equipped vacuum cleaner. Clean all surfaces continuously until no visible dirt or dust is present.
- Carefully empty the dust collected in the vacuum cleaner, being sure to dampen it with water first to control the spread of the collected dust.

Repainting Lead-Painted Surfaces

Repainting is often used on painted surfaces that have begun to deteriorate due to problems such as structural defects or water damage. It is a good choice for walls and ceilings because they are not constantly bumped or rubbed. Repainting a surface with a lead-free paint will help to lessen lead hazards by reducing the amount of lead dust and paint chips.

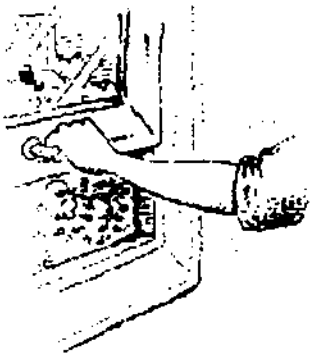
It is very important that you check the surface regularly and maintain it. If properly maintained, you can expect your repainting effort to last from 4 to 10 years.

Recommendations for Repainting a Lead-Painted Surface

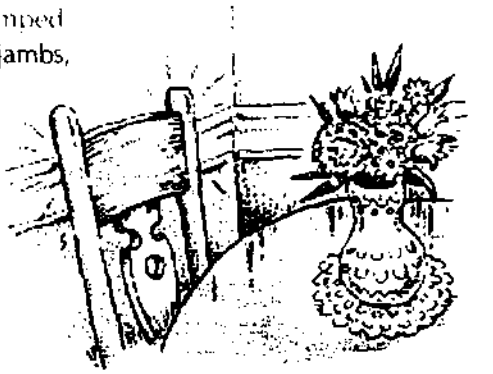
If you plan to repaint a lead-painted surface, take the following steps:

- Make sure that what is causing the paint to deteriorate is fixed or eliminated. This can include repairing water leaks, defective plaster, and damaged structural parts.
- Use a high-quality paint recommended by a manufacturer for the type of surface you are painting.
- Read and follow the manufacturer's instructions for applying paint.

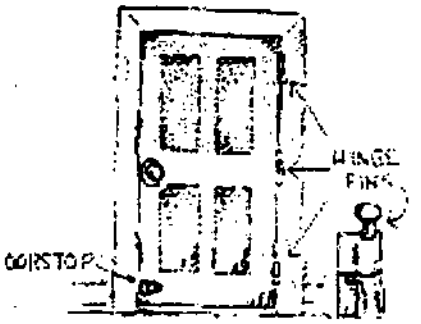
Repairing Friction and Impact Surfaces



Friction surfaces are surfaces that are subject to abrasion, that is, rubbing or friction actions that cause wear on a surface. Common examples of friction surfaces are the parts of a window that rub when opened and closed, tight-fitting doors, cabinet doors and drawers, stairs and hand railings, and floors. When covered with lead-based paint, friction surfaces subject to abrasion can disturb lead-based paint. Friction surfaces may be treated by fixing the areas that rub together. For example, if you replace a tight-fitting door with a loose-fitting one, you will reduce the chances that the door will create lead dust.



Impact surfaces are surfaces that stick out and tend to be bumped or banged. The most common impact surfaces are doors and doorjambs, door trim, doorstops, outside corners of walls, baseboards, shoe moldings, chair rails, and stair risers. Repeated impacts can cause small chips of paint to fall to the floor and contaminate dust. You can reduce impact surface problems by placing barriers in front of the surfaces. For example, put a new chair rail on a lead-painted wall. This will lessen the damage done to the wall when a chair bumps against the rail.



How to Repair a Friction or Impact Surface

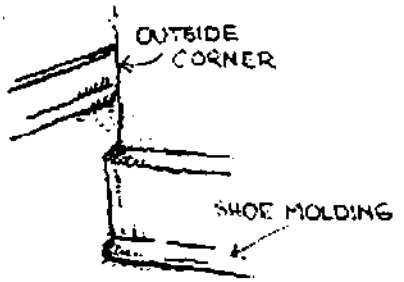
The following actions will help to reduce lead hazards from lead-painted friction and impact surfaces in your home. Remember—when performing any type of interim control—always cover work areas with thick, plastic sheeting and spray components with water to reduce dust.

- If you are repairing a window, remove the window. Wet scrape the deteriorated paint. If the window trough is badly weathered, cover with back-caulked, aluminum coil stock. Reinstall the window.
- If you are repairing a door, remove the doorstop and dispose of it properly. (See Chapter 8.) Remove the door by pulling out the hinge pins. Mist the door with water and plane the door to eliminate areas that might rub together. Reinstall the door and install a new doorstop.

- If you are repairing stairs, install a hard, cleanable covering, such as rubber tread guards. You can install carpeting on the stairs instead, but fasten it securely so that it does not cause abrasion. Repaint any railings that may have deteriorated lead-based paint. (For more information on repainting, see page 37.)

Other ways to repair friction and impact surfaces include—

- Removing and replacing shoe moldings around baseboards.
- Installing new plastic or wood corner beads to abraded outside corners.
- Removing and replacing cabinet doors, or having the paint stripped off at a professional paint stripping plant. Strip paint from drawers and drawer guides or plane impact points and repaint. Or, install rubber or felt bumpers at points of friction or impact.
- Repainting porches, decks, and interior floors.



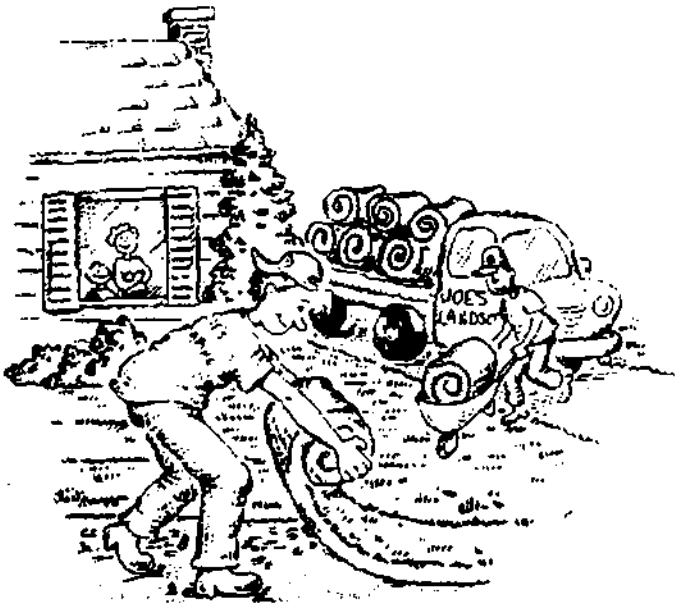
Preventing Access to Soil Hazards

Whether the source is lead-based paint or leaded gasoline, soil that is contaminated by lead can be dangerous if children play in it or if it is tracked into your home by people and pets. If you think that your soil may be contaminated, have a risk assessor test it. A test will determine what action, if any, needs to be taken.

Never plant vegetable gardens in lead-contaminated soil. You can get lead poisoned from eating carrots and leafy vegetables grown in leaded soil.

What to Do After a Soil Lead Test

Less than 400 ppm	Nothing
400–5,000 ppm	• Cover bare soil by planting grass, piling mulch or sand on top of it, or landscaping with sod and bushes. To keep children from playing in soil near your home (which may have higher concentrations of lead), plant bushes close to the house. In areas near children's playgrounds, cover soil with mulch and gravel piled at least 6 inches. • Move play areas away from contaminated soil. • Put doormats outside and inside all entryways. Remove your shoes before entering.
Higher than 5,000 ppm	Abatement (see Chapter 7 and Appendix D).



7
Abatement

QUICKTIPS

- An abatement will permanently control or get rid of lead hazards in your home.
- Never perform an abatement yourself. An abatement must be done by a trained and licensed professional.
- If an abatement is done incorrectly, the chances of lead poisoning can increase.

Lead Abatement: What It Is, Who Should Do It

You can reduce the risk of lead exposure in your home by having a contractor perform an abatement. An abatement is a way to permanently contain or remove lead hazards. Merely painting or papering over lead-painted surfaces is not abatement.

The four abatement methods for structural components are—

- Replacement. Removing a part of a building that contains lead-based paint and replacing it with a new, lead-free part.
- Enclosure. Building a new wall, ceiling, or floor over an existing one.
- Encapsulation. Using a special type of coating to cover a lead-painted surface.
- Paint removal. Stripping the lead-based paint off an object.

EPA strongly recommends that you use a certified abatement contractor. If the abatement and the cleanup following it are not done right, the chance of lead poisoning will increase. A contractor trained in lead-based paint hazards and abatement will know how to safeguard your family before, during, and after an abatement.

If your child has a blood-lead level at or above 10 micrograms per deciliter (ug/dl), some states require you to hire a certified and trained contractor to abate the lead in your home. Check with your state lead contact (Appendix B).

When hiring an abatement contractor, use the following checklist to find someone who can do the job safely and correctly.

- **Begin by getting a lis of lead contractors.** Call the HUD Lead Listing at (888) LEAD .IST for a list of inspectors, risk assessors, and abatement contractors wh have been trained by an EPA-accredited training provider. Your sta lead contact (listed in Appendix B) can also provide a list of contractors who perform lead activities in your area.
- **Check your contracto s credentials.** Always ask to see a contractor's lead-based pa t license or certificate. If the contractor is not certified, ask to see the contractor's training certificate. EPA has developed training courses or lead-based paint professionals so ask if the contractor's training was b ed on EPA course materials. Beginning in August 1999, Federal law will require lead contractors to be certified.
- **Check your contracto s references.** Call at least three of your contractor's previous client Make sure your contractor safely and properly completed the wo k requested.

Once you have hired a contractor, you should understand what your contractor is going to do. Start by—

- Reading the abatement instructions provided in Appendix D of this guidebook.
- Having your contractor explain how the project will be carried out.
- Talking to your contractor about what precautions will be taken to prevent you and your family from being exposed to lead.

Depending on the type of lead hazard, your contractor will choose either replacement, enclosure, encapsulation, paint removal, or a combination of these. Read on for more information.

Replacement

Lead-based painted windows are often the highest source of lead dust in a home.

"Replacement" is the removal of a building part that contains lead-based paint and the replacement of that part with a new, lead-free one. Replacement is a good choice for windows, doors, and woodwork.

Replacement of walls, ceilings, and floors is very expensive, and the process stirs up a lot of dust. Enclosure or encapsulation might be a better choice.

Advantages of Replacement—

- Removes lead-based paint permanently.
- Safest permanent intervention.
- Upgrades your home.
- Can lower heat and maintenance costs.

Disadvantages of Replacement—

- Expensive.
- Areas next to replaced part may be damaged.
- Replacement part may not be as good as the original.

Enclosure

Enclosure is the process of covering lead-painted surfaces with paneling, wallboard, or other materials. The materials are fastened with screws and sealed with caulking to prevent exposure to the lead-painted surfaces.

Enclosure is useful for surfaces that are cracked or chipped. Encapsulation may be a better choice for surfaces in good condition.

Enclosure is most appropriate for walls, ceilings, and floors.

Advantages of Enclosure—

- Cost-effective.
- Durable.
- Generates little contamination.

Disadvantages of Enclosure—

- May not be a permanent solution.
- Must be checked every 3 to 6 months to make sure it stays intact.

Even though enclosure and encapsulation do not remove the lead-based paint, they are considered a form of abatement. If done right, these methods can effectively reduce the lead hazards in your home.

Encapsulation

Like enclosure, encapsulation provides a barrier that prevents lead dust from spreading. With encapsulation, however, the barrier is a special type of coating—called an encapsulant—applied to a lead-painted surface. Once dry, it forms a stiff barrier, which can then be painted. This method of abatement is a good choice for wall surfaces in good condition, for surfaces that are not rubbed often, and for curved surfaces.

Advantages of Encapsulation—

- Generates little contamination.
- Inexpensive.

Disadvantages of Encapsulation—

- Use of some encapsulant products will create hazardous waste.
- Cannot be used in high-friction areas.
- May not be a permanent solution.
- Must be checked every 3 to 6 months to make sure it stays intact.

Paint Removal

Paint removal is the stripping of lead-based paint from an object. This process creates a large amount of lead and waste, so choose paint removal only if no other abatement strategy will work, or if an object has historical value.

It is possible to have paint removed on-site (in your home) or off-site (at a paint stripping plant). You can reduce the risk of lead exposure during abatement by choosing off-site paint removal, and allowing items to be taken from your home to a professional stripping plant.

Advantages of Off-Site Paint Removal—

- Keeps hazardous chemical strippers out of your home.
- Preserves the detail on decorative doors, molding, and trims.
- Useful on antique items that cannot be replaced.

Disadvantages of Off-Site Paint Removal—

- The liquid waste you generate when you rinse and clean the stripped items may be hazardous.
- Chemical stripping never removes all of the lead.
- Leftover stripper will cause the new paint coat to fail.
- Removing a building component for off-site stripping creates dust.

Exterior Paint Removal

Lead-based paint found on the outside of your house can be hazardous too. It may need to be removed or enclosed so that it does not get into the dirt surrounding your house.

To get rid of the lead-based paint on the exterior of your house, your contractor will likely use vacuum blasting, water blasting, or exterior enclosure.

Advantages of Vacuum or Water Blasting—

- Can be used on the exterior of your home.

Disadvantages of Vacuum or Water Blasting—

- Can damage the treated surface, especially wood.
- Creates a lot of waste and can spread paint chips around nearby areas.
- Very expensive.

For more information on vacuum blasting, water blasting, and exterior enclosure, see Appendix D.

Soil Abatement

Sometimes, soil needs to be abated. If it has a high lead level (usually above 5,000 parts per million), it should be abated.

One way to do this is to hire a contractor to remove or replace the contaminated soil. Another option is to have a contractor create a permanent barrier between the soil and your family. This can be done by paving over or putting permanent bricks on top of the soil. If you have the old soil removed, ask your state lead contact (Appendix B) for assistance in determining how it should be disposed.

Help From a Risk Assessor or a Contractor

In some households, interim controls work well. Others require abatement. For still others, the best approach is to combine interim controls with abatement. Deciding on the safest, most efficient, and most cost-effective approach in your case is difficult, so consider consulting a certified risk assessor. Risk assessors are trained to identify strategies for reducing the hazards of lead-based paint.

8

Cleaning Up Lead Waste

QUICK TIPS

- Cleanup is the most important step in controlling or getting rid of lead hazards.
- If the cleanup is done incorrectly, your home may be more hazardous than it was before the work began.

Dust contaminated with lead by home projects—from remodeling to interim controls and abatement—can be hazardous to you and your family. In fact, if this dust is not properly removed—both during and after projects—your home could be more hazardous than it was before work began.

Pay special attention to cleanup activities that prevent the spread of lead dust to other areas of your home or exposing your family to lead.

Cleanup is the most important step in your project. Here are some tips for daily cleanup, personal cleanup, and final cleanup after the job is done.

Daily Cleanup

Daily cleanup is important whenever you or your contractor work with lead. Daily cleaning prevents the spread of lead dust and makes cleanup at the end of the project much easier.

At the end of every project day, do the following:

- Wrap up and label any debris or trash.
- Mop floors and wash exposed surfaces and tools with a solution of water and an all-purpose cleaner or a cleaner made specifically for lead. Allow to dry.
- Strain out paint chips from liquid waste and dispose of them in a heavy-duty plastic bag.
- Vacuum all exposed surfaces and any plastic sheeting with a HEPA filter-equipped vacuum cleaner.

Cleanup is the most important step.

- Mist outside areas using a garden hose before sweeping these areas with a broom. Avoid dry sweeping since it spreads lead dust. Shovel, rake, or HEPA vacuum debris into heavy-duty plastic bags placed in cardboard boxes for support.
- Clean your vacuum and tools with a solution of water and an all-purpose cleaner or a cleaner made specifically for lead.
- Seal off the entryways with the thick, plastic sheeting if you have to leave a work site unattended.

Personal Cleanup

It is very important that whoever has been doing the work follow these steps to prevent lead dust from spreading to other areas of your home:

- Wash your hands and face whenever you leave your work area.
- Change your clothes and shoes before leaving the work area. After removing your clothes, wash them immediately, separately from other family laundry.
- Shower and wash your hair right after finishing work to prevent spreading lead dust.

Keep in mind that anyone observing lead hazard control work or entering a room in which work is being done needs to take safety precautions as well. They should always remove their shoes before leaving the work area and wash their hands after leaving the work area.

Final Cleanup

Final cleanup, which takes place at the end of a project, must be performed slowly and carefully. It should occur no sooner than 1 hour after the project ends. Time is needed to let lead dust settle.

Here are the steps of the final cleanup process:

- Collect waste and debris and seal in plastic bags.
- Carefully remove any plastic sheeting by rolling or folding inward.
- Wash all surfaces with a solution of water and an all-purpose cleaner or a cleaner made specifically for lead. Allow to dry.
- Vacuum all exposed surfaces with a HEPA filter-equipped vacuum.

After the above tasks have been performed, you should not see any dust.

Clearance Examination

After any type of lead work has been performed in your home, it is strongly recommended that you hire a professional to perform a clearance examination. This is especially important after an abatement procedure. Because an abatement is likely to disturb lead-painted surfaces, you need to be certain that you and your family will not be exposed to lead hazards.

A clearance examination includes a visual examination and an analysis of dust samples to ensure that lead levels are not a danger to you and your family and that cleanup was done properly. The clearance examination should take place no sooner than 1 hour after any cleaning activity to allow lead particles to settle.

The purpose of the clearance examination is to make sure that dust levels are low so you and your family will not be exposed to lead hazards.

For a list of qualified professionals in your area who perform testing services, call your state lead contact (Appendix B) or the U.S. Department of Housing and Urban Development's Lead Listing at (888) LEAD-LIST. You can also get testing and laboratory information by calling the National Lead Information Center's Clearinghouse at (800) 424-LEAD.

Hazardous Waste Disposal

Working with lead produces many types of waste materials—including lead-based paint chips, liquid waste, used cleaning materials, and lead-painted doors and windows. Do not keep waste materials—like doors, windows, and scraps of wood—for other uses, and never burn lead-painted wood. This creates hazardous lead fumes.

Hazardous waste that is not disposed of properly will harm the environment. Under the Resource Conservation and Recovery Act (RCRA) and state or local regulations, certain types of waste are considered hazardous and must be disposed of at a hazardous waste facility. If you generate lead waste in your own home, however, the hazardous waste requirements may not apply to you. Call your state lead contact to see how lead trash should be disposed of in your area.

APPENDIX A

For More Information

Lead Hazards and Lead Poisoning Prevention

- Call the National Lead Information Center's Clearinghouse at (800) 424–LEAD to speak with a lead information specialist. If you are hearing impaired, call TDD (800) 526–5456. The clearinghouse can provide general lead information. It can also provide testing and laboratory information.
- Call the Safe Drinking Water Hotline at (800) 426–4791 for information on lead hazards in your drinking water.
- Call the Consumer Product Safety Commission Hotline at (800) 638–2772 for information on lead in consumer products. If you are hearing impaired, call TDD (800) 638–8270.
- Call the National Conference of State Legislatures at (303) 830–2200 for a list of local health department contacts for lead poisoning services.
- Visit the EPA lead home page at www.epa.gov/lead to get information on lead regulations and to learn about other EPA and Federal agency efforts to reduce lead exposure.

Blood-Lead Testing

- Call your health care provider or local health department. They can either provide blood-lead testing or refer you to someone who can.

Certified Lead Contractors

- Call the National Lead Service Providers' Listing System at (888) LEAD–LIST for a list of inspectors, risk assessors, and abatement contractors who have received training from a state-accredited training provider. Or get the list from the Internet at www.leadlisting.org.
- Call your state lead contact (see Appendix B) for a list of contractors who perform lead activities in your area.
- Call the National Lead Information Center's Clearinghouse at (800) 424–LEAD if you have a tip or complaint about a lead service provider who may have done work incorrectly.

Financial Assistance for Lead Activities

- Call your state lead contact (see Appendix B) to get information on financial assistance programs in your area. Some state and local agencies can arrange for needed services at no cost to you, and some offer financial help. For example, many agencies—
  - Conduct free blood-lead screenings or direct you to a source of free testing.
  - Help pay for a lead inspection and, if necessary, the removal of lead-based paint by a trained professional.
  - Provide temporary housing, called "Safe Houses," for families undergoing lead removal.
- Call the HUD Office of Affordable Housing Programs at (202) 708–2470 for information on the HUD HOME Program. One of the activities provided for under this program is financial help for major home repairs to low-income people who have lead-based paint in their homes.

APPENDIX B

State Lead Program Contacts

Need more information about lead hazards and the prevention of lead poisoning in your state? Call your state lead contact.

Alabama
Bureau of Environmental Services
Department of Public Health
201 Monroe Street, Suite 1250
PO Box 303017
Montgomery, AL 36130-3017
(334) 206-5373

Alaska
Department of Health and Social Services
Division of Public Health
Section of Epidemiology
3601 C Street, Suite 540
P.O. Box 240249
Anchorage, AK 99524-0249
(907) 269-8044

Arizona
Office of Environmental Health
Arizona Department of Health Services
3815 N. Black Canyon Highway
Phoenix, AZ 85015
(602) 230-5943

Arkansas
Department of Health
Environmental Health and Protection
4815 West Markham Street, Slot 46
Little Rock, AR 72205-3867
(501) 661-2171

California
Childhood Lead Poisoning Prevention Branch
California Department of Health Services
5801 Christie Avenue, 6th Floor, Suite 600
Emeryville, CA 94608
(510) 450-2453

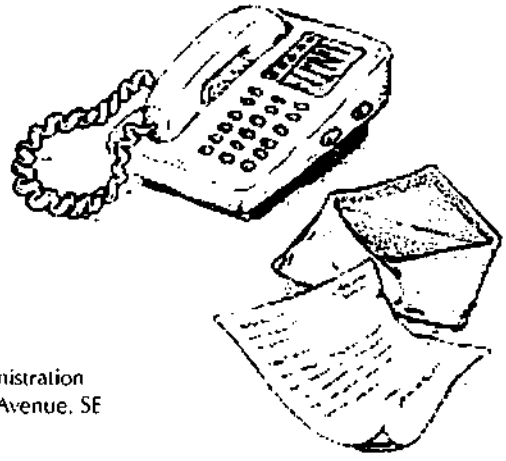
Colorado
Lead Poisoning Prevention Program
DCEED-LEAD-A3
4300 Cherry Creek Drive, South
Denver, CO 80246-1530
(303) 692-2685

Connecticut
Division of Environmental Health
Department of Public Health
450 Capitol Avenue, P.O. Box 340308
Mail Stop 51LED
Hartford, CT 06134-0308
(860) 509-7293

Delaware
DHSS
Division of Public Health
Jesse S. Cooper Building
P.O. Box 637
Dover, DE 19903
(302) 739-4731

District of Columbia
Department of Health
Environmental Health Administration
2100 Martin Luther King Jr. Avenue, SE
Suite 404
Washington, DC 20020
(202) 645-6093 x3066

Florida
Department of Health
Bureau of Environmental Toxicology
1317 Winewood Boulevard
Tallahassee, FL 32399-0700
(904) 488-3385



Georgia
Georgia Childhood Lead Poisoning
Prevention Program
Department of Human Resources
2 Peachtree Street, NW, 5th Floor Annex
Atlanta, GA 30303-3186
(404) 657-6514

Hawaii
Department of Health
Environmental Health
P.O. Box 3378
Honolulu, HI 96801
(808) 586-4424

Idaho
Idaho Department of Health and Welfare
Bureau of Environmental Health and Safety
Towers Building, 4th Floor
P.O. Box 83720
Boise, ID 83720-0036
(208) 334-6584

Illinois
Division of Environmental Health
Asbestos and Lead Programs
Department of Public Health
525 W. Jefferson
Springfield, IL 62761
(217) 782-3517

Indiana
Childhood Lead Poisoning Prevention
Program
Maternal and Child Health Services
State Department of Health
2 North Meridian
Indianapolis, IN 46204
(317) 233-1232

Iowa
Lead Poisoning Prevention Program
Department of Public Health
Lucas State Office Building
321 E. 12th Street
Des Moines, IA 50319-0075
(515) 242-6340

Kansas
Bureau of Environmental Health
Mills Building
Suite 604
109 SW 9th Street
Topeka, KS 66612-1274
(785) 296-0189

Kentucky
Division of Environmental Health and
Comm[illegible]ity Safety
275 E. [illegible] Street
Frankfort, KY 40621
(502) 564-4856

Louisiana
Asbestos and Lead Program
Department of Environmental Quality
Office of Air Quality Division
5222 Summa Court
Baton Rouge, LA 70809
(504) 765-2547

Maine
Maine Childhood Lead Poisoning
Prevention Program
Division of Community and Family Health
151 Capitol Street
Augusta, ME 04333
(207) 287-4311

Maryland
Environmental Lead Division
Waste Management Administration
Department of the Environment
2500 Broening Highway
Baltimore, MD 21224
(410) 631-3825

Massachusetts
Childhood Lead Poisoning Prevention
Program
Department of Public Health
470 Atlantic Avenue, 2nd Floor
Boston, MA 02210-2224
(617) 753-8401
(888) NOLEADO or (888) 665-3230

Michigan
Department of Community Health
Public Health Agency
3423 N. Martin Luther King Jr. Boulevard
P.O. Box 30195
Lansing, MI 48909
(517) 335-8011

Minnesota
Director of Environmental Health
Minnesota Department of Health
121 East 7th Place
P.O. Box [illegible]975
St. Paul [illegible] 55164-0975
(612) [illegible]231

Mississippi
Department of Environmental Quality
P.O. Box 10385
Jackson, MS 39289–0385
(601) 961–5171

Missouri
Office of Lead Licensing and Accreditation Program
Missouri Department of Health
P.O. Box 570
Jefferson City, MO 65102–0570
(573) 526-5873
(888) 837-0927 (in Missouri)

Montana
Department of Environmental Quality
Division of Planning, Prevention and Assistance
1520 East 6th Avenue
P.O. Box 200901, Metcalf Building
Helena, MT 59620–0901
(406) 444–6697

Nebraska
Department of Health and Human Services Regulation and Licensure
P.O. Box 9507
301 Centennial Mall South
Lincoln, NE 68509
(402) 471–0782
(888) 242-1100 (in Nebraska)

Nevada
Nevada Division of Health
505 E. King Street, Room 201
Carson City, NV 89701
(702) 687–5845

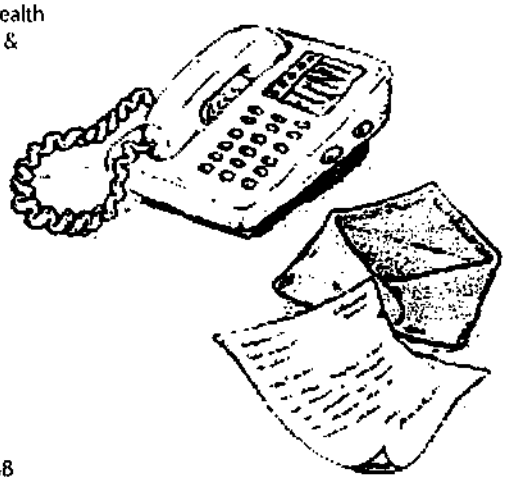
New Hampshire
Bureau of Health Risk Assessment
Department of Health and Human Services
6 Hazen Drive
Health and Welfare Building
Concord, NH 03301–6527
(603) 271–4507

New Jersey
Lead and Asbestos Program
New Jersey Department of Health and Senior Services
CN 360
Trenton, NJ 08625
(609) 984–2193

New Mexico
Lead Poisoning Prevention Program
Department of Health
Runnels Building–St. Francis Drive
Santa Fe, NM 87505
(505) 827–0006

New York
Bureau of Community Sanitation and Food Protection
New York State Department of Health
1215 Western Avenue
Albany, NY 12203
(800) 458–1158

North Carolina
Division of Environmental Health
Department of Environment & Natural Resources
2728 Capital Boulevard
Raleigh, NC 27604
(919) 733–2870



North Dakota
Department of Health
1200 Missouri Avenue
P.O. Box 5520
Bismarck, ND 58506
(701) 328–5188

Ohio
Ohio Department of Health
246 N. High Street
Columbus, OH 43266–0588
(614) 644–8649

Oklahoma
Department of Environmental Quality
4545 N. Lincoln, Suite 250
Oklahoma City, OK 73105
(405) 290–8247

Oregon
Environmental Services and Consultation
Oregon Health Division
800 NE Oregon Street, Suite 608
Portland, OR 97232
(503) 731–4012 x721

Pennsylvania
Childhood Lead Poisoning Prevention Program
Department of Health
P.O. Box 90, Room 725
Harrisburg, PA 17108
(800) 440–LEAD (in Pennsylvania)

Puerto Rico
Emergency Response and Superfund
Environmental Quality Board
P.O. Box 11488
Santurce, PR 00910
(809) 766-2823

Rhode Island
Department of Environmental Management
Office of Director
235 Promenade Street
Providence, RI 02908
(401) 222-2771 x2402

South Carolina
Department of Health & Environmental Control
2600 Bull Street
Columbia, SC 29201
(803) 935-7945

South Dakota
Department of Environment and Natural Resources
Waste Management Program
Joe Foss Building
523 E. Capitol Avenue
Pierre, SD 57501-3181
(605) 773-3153

Tennessee
Department of Environment and Conservation
Life and Casualty Tower
401 Church Street, 21st Floor
Nashville, TN 37243-0435
(615) 532-0104

Texas
Texas Department of Health
Environmental Lead Program
1100 W. 49th Street
Austin, TX 78756
(512) 834-6600

Utah
Lead-Based Paint Program Development
Department of Environmental Quality
150 N. 1950 West
Salt Lake City, UT 84116-4820
(801) 536-4451

Vermont
Childhood Lead Poisoning Prevention Program
Vermont Department of Health
108 Cherry Street
P.O. Box 70
Burlington, VT 05402
(802) 865-7786

Virginia
Lead-Safe Virginia Program
Virginia Department of Health
1500 E. Main Street
P.O. Box 2448
Richmond, VA 23218-2448
(804) 225-4455

Virgin Islands
Division of Environmental Protection
Department of Planning and Natural Resources
396-[illegible] [illegible]nas Retreat
Foster [illegible]za
St. Thomas, VI 00802
(809) 777-4577

Washington
Washington State Department of Health
Office of Toxic Substances
Airdustrial Center Building 4
P.O. Box 47825
Olympia, WA 98504-7825
(360) 236-3381

West Virginia
Environmental Health Services
815 Quarrier Street, Room 418
Charleston, WV 25301
(304) 558-2981 x24

Wisconsin
Bureau of Public Health
1414 E. Washington Avenue
Madison, WI 53703
(608) 266-5817

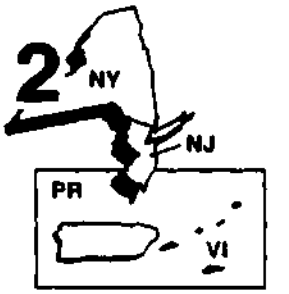
Wyoming
Preventive Medicine Division, Department of Health
Hathaway Building, 4th Floor
Cheyenne, WY 82002
(307) 777-6951

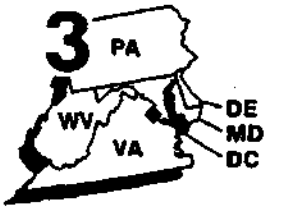
APPENDIX C

EPA Regional Lead Contacts

The Environmental Protection Agency has 10 regional offices across the United States. For more information on lead regulations or lead poisoning prevention programs, contact the regional office that serves your state or territory.

Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont	Regional Lead Contact U.S. EPA Region 1 JFK Federal Building 1 Congress Street Boston, MA 02203–0001 (617) 565–3836
New Jersey, New York, Puerto Rico, Virgin Islands	Regional Lead Contact U.S. EPA Region 2 2890 Woodbridge Avenue Building 209, Mail Stop 225 Edison, NJ 08837–3679 (732) 321–6671
Delaware, Maryland, Pennsylvania, Virginia, Washington, D.C., West Virginia	Regional Lead Contact U.S. EPA Region 3 (3WC33) 841 Chestnut Building Philadelphia, PA 19107 (215) 566–2084
Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee	Regional Lead Contact U.S. EPA Region 4 61 Forsyth Street, SW Atlanta, GA 30303 (404) 562–8998





REGION 5

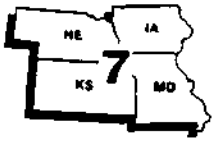
Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin

Regional Lead Contact
U.S. EPA Region 5 (DT-8J)
77 West Jackson Boulevard
Chicago, IL 60604–3507
(312) 886–7836

REGION 6

Arkansas, Louisiana, New Mexico, Oklahoma, Texas

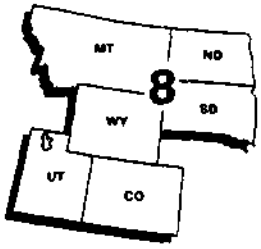
Regional Lead Contact
U.S. EPA Region 6
1445 Ross Avenue, 12th Floor
Dallas, TX 75202–2733
(214) 665–7577



REGION 7

Iowa, Kansas, Missouri, Nebraska

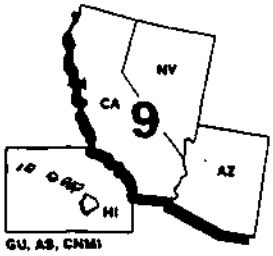
Regional Lead Contact
U.S. EPA Region 7
(ARTD–RALI)
726 Minnesota Avenue
Kansas City, KS 66101
(913) 551–7020



REGION 8

Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming

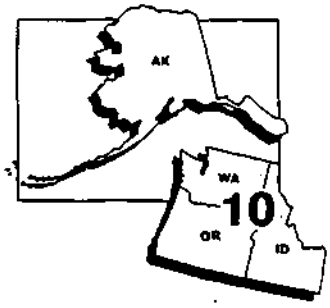
Regional Lead Contact
U.S. EPA Region 8
999 18th Street, Suite 500
Denver, CO 80202-2466
(303) 312–6021



REGION 9

Arizona, California, Hawaii, Nevada

Regional Lead Contact
U.S. EPA Region 9
75 Hawthorne Street
San Francisco, CA 94105
(415) 744–1093



REGION 10

Alaska, Idaho, Oregon, Washington

Regional Lead Contact
U.S. EPA Region 10
Toxics Section WCM-128
1200 Sixth Avenue
Seattle, WA 98101-1128
(206) 553–1985

APPENDIX D

Abatement Guidelines for Your Contractor

Once you have hired an abatement contractor, you should know how the abatement project will be carried out. The information in this appendix will help. It lists general guidelines for performing the four types of structural abatement, including—

- Replacement
- Encapsulation
- Enclosure
- Paint Removal

Keep in mind these are not step-by-step instructions. The guidelines are meant to help you make sure that your contractor is working safely and properly.

Replacement	• Windows, doors, and moldings • Any other easily removed component
Encapsulation	• Walls, ceilings, and trim • Curved surfaces
Enclosure	• Floors, pipes, ceilings, exterior trim, etc.
Paint Removal	
Wet Scraping	• Loose paint • Should not be used as a removal method for large areas
Off-Site Chemical Stripping	• Restoration of historic pieces • Doors, mantels, metal railings, and trim
Solvents	• Metal substrates • To clean residue left by other methods
Heat Gun	• Flat surfaces • To soften thick layers of paint (Should not be operated above 1100° F)

Q. What should I do to prepare for an abatement?

A. Everyone in your home, especially children and pregnant women, must stay out of the house until the work is done and the cleanup, including dust sample analysis, is complete. In some cases, after the work area is contained, you may be able to enter your home if you stay out of the work area. (See Chapter 4 for more information on how to safely contain a work area and prevent lead dust from spreading.)

Replacement

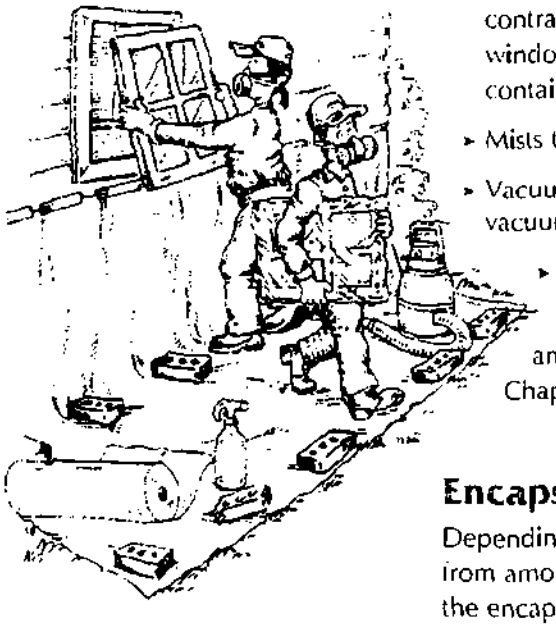
Whenever possible, windows should be removed from the outside of your home to prevent the spread of lead dust inside.

Replacing Doors, Windows, and Woodwork

Opening and closing doors or windows stirs up lead dust. Bumping or banging woodwork does too. You may need to replace some of them to prevent lead dust from spreading to other areas of your home.

Make sure your contractor—

- Covers the area around the part being replaced and any nearby surfaces with two or three layers of 6-mil polyethylene plastic sheeting. When the part being removed is a window, make sure the contractor attaches this plastic sheeting to the wall below the window and extends it at least 6 feet on each side of the window to contain lead dust and debris.
- Mists the component with water before removing it.
- Vacuums the part to be removed with a HEPA filter-equipped vacuum to prevent lead dust from spreading.
- After removal, wraps the part in plastic sheeting.
- Before installing the new part, disposes of the old part and cleans the work area according to the directions in Chapter 8.



Encapsulation

Depending on the task to be performed, your contractor can choose from among many encapsulation products and should consider where the encapsulant will be applied. Encapsulant makers provide directions on preparing surfaces and on monitoring, maintaining, and cleaning encapsulated surfaces. If properly applied and maintained, an encapsulant should last for 20 years.

Enclosure

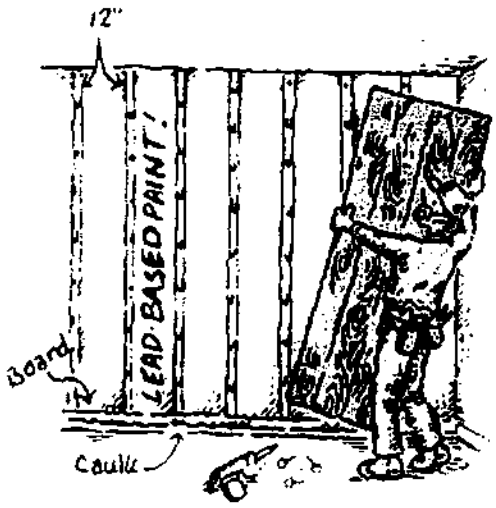
Preparing the Area

Make sure your contractor—

- Eliminates all moisture sources and allows the surface to dry.
- Lays thick, plastic sheeting (mentioned on pages 25 and 60) around the work area to prevent lead dust from spreading to other parts of the room, or to other rooms in your home.

Enclosing a Wall

Make sure your contractor—



- Writes the words "Lead-Based Paint" on the wall to be enclosed.
- Nails strips of wood 12 inches apart down the wall being enclosed.
- Nails one horizontal strip of wood along the base of the wall, and seals it with caulk along the bottom edge to create a dust-tight seal.
- Measures and caulks the new wallboard or paneling, and attaches it to the original wall.
- Measures and caulks the baseboard, and attaches it to the bottom of the wallboard.
- Measures and caulks the shoe molding, and attaches it to the bottom of the baseboard.
- Cleans the work area according to the instructions in Chapter 8.
- Paints or papers the new wall.

Exterior walls can be enclosed in much the same way.

Enclosing a Ceiling

Make sure your contractor—

- Writes the words "Lead-Based Paint" on the ceiling to be enclosed.
- Using a stud finder, finds the ceiling studs.
- Measures the wallboard carefully.
- Caulks and screws the wallboard directly into the ceiling studs.
- Cleans the work area according to the instructions in Chapter 8.
- Paints the new ceiling.

Paint Removal

There are many ways to remove paint, and some of them should never be used on lead-based paint. They include—

- Torch or flame burning.
- Open abrasive blasting.
- Uncontained water blasting.
- Machine sanding without a HEPA filter.
- On-site use of chemical strippers that contain methylene chloride.
- On-site use of flammable solvents.
- Solutions of potassium or sodium hydroxides.
- Dry scraping large areas.

Off-Site Paint Removal

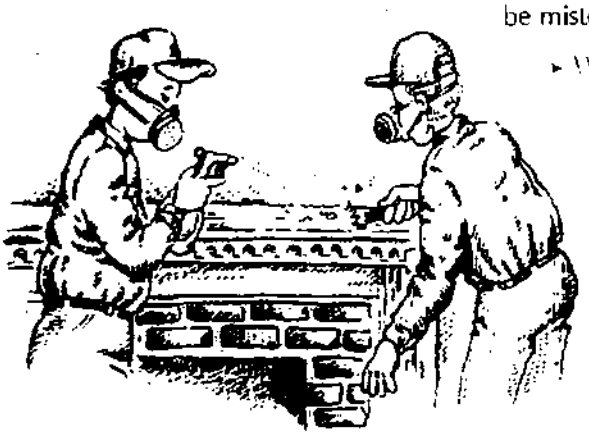
Off-site paint removal works best for doors, mantels, and other trim that may have architectural or historical value. The items are dipped into a tank of chemical stripping agents, and the paint dissolves off the surface.

Be sure to wash the items before reinstalling them. You may also need to refinish or re-glue the pieces.

On-Site Paint Removal

If you must have paint removed in your home, your contractor can apply one or more of these methods:

- Wet scraping. Wet scraping is a way to prepare a surface for repainting by removing loose paint. The surface must be misted before being scraped to keep lead dust levels down. It also must be misted constantly while it is being scraped.
- Wet planing. Similar to wet scraping, the surface must be misted with water before being planed and while it is being planed.
- Electric heat guns. Electric heat guns force warmed air onto a painted surface. The heat softens the paint, which is then scraped off with hand tools. Heat guns should not be warmed above 1100° F. If heated above this temperature lead-based paint can give off toxic fumes.



- Local exhaust hand tools. These handheld power tools are attached to a HEPA vacuum by a hose. The vacuum contains a HEPA filter to prevent the spread of lead dust.
- Chemical stripping. Chemical stripping is the use of solvents or caustic pastes to dissolve and strip off paint. Chemical strippers are dangerous and may give off harmful vapors, which can catch on fire. Some states prohibit the use of methylene chloride, which is often used in chemical strippers. Your contractor should know whether chemical stripping is an option in your state. If not, check with your state lead contact (Appendix B).

Vacuum Blasting, Water Blasting, and Enclosure for Exterior Paint

Although vacuum blasting or water blasting should never be done inside your home because of the waste they create, your contractor may remove paint from the exterior of your home using these methods. To avoid contaminating areas around your home and your neighbors' homes, make sure your contractor controls the spread of any waste or debris.

When removing exterior paint, make sure your contractor—

- Protects the soil, bushes, plants, and the area around your home by taping thick, plastic sheeting to the base of the structure. The plastic sheeting should extend at least 6 feet for every story.
- Places 2" x 4" boards under the edge of the plastic sheeting to create a curb. The curb should direct the waste water into a low spot, where it can be pumped into a 55-gallon drum.
- Cleans and smooths the surface.

Enclosing outside surfaces with a dust-tight material or aluminum siding is often the best method to use. This will protect the lead-based paint from the elements and will increase the energy efficiency of your home. It also creates less waste than other abatement methods.

Glossary

Abatement A procedure that eliminates lead-based paint hazards or lead-based paint. The four types of abatement methods are removal, enclosure, encapsulation, and replacement. Removal and replacement are permanent.

Abrasion Rubbing or friction that causes wear on a surface.

Accredited training provider A training provider approved by EPA to train individuals to be risk assessors, inspectors, supervisors, and workers.

All-purpose cleaner A general-purpose cleaning product.

Bare soil Soil not covered with grass, sod, other vegetation, or pavement. This also includes the sand in sandboxes.

Blood-lead level A measurement of how much lead is in the body.

Certified The designation for contractors who have completed training and other requirements to allow them to carry out risk assessments, inspections, or abatements safely. Risk assessors, inspectors, and abatement contractors should be certified by the appropriate local, state, or Federal agency.

Characteristics (of hazardous waste) EPA has identified four characteristics of hazardous waste: how easily the waste ignites, how corrosive it is, how it reacts with other substances, and how toxic it is to people and the environment. Any solid waste that has at least one of these characteristics may be classified as hazardous under the Resource Conservation and Recovery Act (RCRA), depending on how the waste is produced and how much is generated.

Chemical stripping A paint removal method that uses chemicals to strip off paint.

Chelation A medical drug treatment for lead poisoning.

Cleaner made specifically for lead Cleaning product made specifically for cleaning and removing lead-contaminated dust. Can be found in some paint and hardware stores.

Cleaning The process of using a HEPA vacuum and wet cleaning agents to remove lead dust. See also HEPA filter and wet cleaning.

Clearance examination An inspection performed after abatement work is completed in housing that contains lead hazards. Also recommended after interim controls and renovation and remodeling activities. Dust levels are checked to be sure that they meet standards.

Clearance examiner An individual who performs a clearance examination, usually a risk assessor or inspector. See also clearance examination.

Contaminate The process by which an area may become infected through contact or association.

Contractor Any business, public body, or person doing work on a lead-based paint hazard control project.

Deteriorated lead-based paint Any lead-based paint that is peeling, chipping, blistering, flaking, worn, chalking, cracking, or otherwise becoming separated from the surface to which it was applied.

dl Short for deciliter. A deciliter is one tenth of a liter, or a little less than half a cup of liquid. This measurement is used when measuring blood in the body.

Disposal (of hazardous waste) Getting rid of hazardous waste in a way that prevents it from polluting the environment.

Durable Able to exist for a long time without deterioration.

Dust removal A type of interim control that involves initial cleaning followed by periodic monitoring and recleaning, as needed.

Dust trap A surface, component, or furnishing where dust may accumulate.

Encapsulation An abatement method in which a lead-painted surface is coated with a special liquid paint that hardens and prevents lead dust from being released.

Enclosure An abatement method in which a lead-painted surface is covered with paneling, wallboard, or other approved material to prevent lead dust from being released.

Evaluation An assessment that includes a risk assessment, paint inspection, reevaluation, investigation, clearance examination, or lead hazard screen.

Exterior work area The area outside a housing unit in which lead hazard control work is performed. It includes areas such as porches or outdoor stairways.

Friction surface Any interior or exterior surface, such as a window or a door, subject to abrasion or friction.

Gram A metric unit of weight equal to one thousandth of a kilogram. It is close to the weight of a penny.

Hazardous waste Any waste that is considered dangerous to people or the environment by state or Federal laws.

Heat gun A device that forces warmed air onto a painted surface and softens the paint so it can be removed. Heating and burning lead-based paint makes dangerous fumes and vapors. If a heat gun must be used, it should not be warmed above 1100° F.

High-Efficiency Particulate Air (HEPA) filter A filter that can remove very small lead particles and prevent them from being redistributed into the air. HEPA filters are used on respirators and vacuum cleaners to prevent lead exposure from projects that disturb lead-based paint.

Hydroblasting The process of using high-powered water pressure to loosen exterior paint so it can be removed.

Impact surface An interior or exterior surface—such as the surface of a door—subject to damage by repeated impact or contact.

Inspection (of paint) An evaluation to determine if lead-based paint is present in housing and where it is located.

Inspector An individual who has completed training from an EPA-approved program and has been licensed or certified by the appropriate state or local agency to perform a lead-based paint inspection. See also inspection.

Interim controls A set of measures that temporarily reduce lead hazards. Such measures include specialized cleaning, repairs, maintenance, painting, and temporary containment.

Interior window sill The portion of the horizontal window ledge that extends into a room on the inside of a house.

Leach The process in which liquid passes through an object, and particles from the object dissolve into or mix with the liquid.

Lead A heavy, bluish-white chemical that can be easily shaped.

Lead-based paint Any paint, varnish, shellac, or other coating that contains lead equal to or greater than 1.0 milligram per square centimeter or 0.5 percent lead by weight.

Lead-contaminated dust Surface dust in residential settings that contains levels of lead that pose a threat of adverse health effects in pregnant women or young children. The term is defined this way for the purpose of Lead In Your Home: A Parent's Reference Guide. However, this is a technical term that will be further defined by the EPA in the TSCA 403 regulation.

Lead-contaminated soil Bare soil in residential settings that contains lead at levels that are hazardous to human health. The term is defined this way for the purpose of Lead In Your Home: A Parent's Reference Guide. However, this is a technical term that will be further defined by the EPA in the TSCA 403 regulation.

Lead hazard Dangerous conditions or circumstances that cause lead exposure at levels that would result in adverse human health effects. Lead hazards could include deteriorated lead-based paint, lead-contaminated dust, and lead-contaminated soil. The term is defined this way for the purpose of Lead In Your Home: A Parent's Reference Guide. However, this is a technical term that will be further defined by the EPA in the TSCA 403 regulation.

Lead hazard control Activities to control and eliminate lead hazards. They include interim controls and abatement.

Lead hazard screen A type of risk assessment performed only in housing in good condition using fewer samples but more stringent evaluation criteria to determine the absence of lead-based paint.

Maintenance Work intended to maintain adequate living conditions in a housing unit.

Mg Short for milligram. It is equal to one thousandth of a gram.

Mil An English unit often used to measure the thickness of paint film or plastic sheeting. It is equal to one thousandth of an inch.

Monitoring Surveillance to make sure lead-based paint and lead dust are kept under control and that activities performed to control lead hazards continue to be successful.

NIOSH National Institute for Occupational Safety and Health. When you purchase a respirator, make sure the package says it is certified by NIOSH.

Off-site paint removal The process of removing a component from housing and stripping the paint from the component at an off-site paint stripping facility.

On-site paint removal The process of removing paint from components inside the housing.

Owner The person who holds the title to a housing unit.

Paint removal An abatement strategy to remove lead-based paint from identified surfaces.

Parts per million (ppm) Measurement used to identify the amount of lead in paint. It is the weight of lead per 1,000,000 weights of a sample, including the lead. For example, if a paint sample contains 5,000 micrograms of lead in 1 gram of paint, then the lead concentration is 5,000 ppm.

Priming To prepare a surface for painting.

Reevaluation An assessment performed by a certified risk assessor to determine if a previously implemented lead-based paint hazard control measure is still effective and if the dust and soil levels remain lower than EPA standards.

Replacement A type of abatement that involves removing housing components coated with lead-based paint—such as windows, doors, and trim—and installing new components that are free of lead-based paint.

Resource Conservation and Recovery Act (RCRA) A Federal law that defines hazardous and nonhazardous waste and regulates hazardous waste disposal.

Respirator A device worn to cover the mouth and nose. When working with lead-based paint, the only type of respirator that will filter out lead dust particles is one equipped with a HEPA filter.

Risk assessment An on-site investigation of housing to determine if lead hazards are present and how they can be controlled.

Risk assessor A certified individual who has completed training with an accredited training program and has been certified to perform a risk assessment. See also risk assessment.

Sandblasting A process in which sand is blown by air or steam to remove paint.

Safe Drinking Water Act (SDWA) A law that limits the amount of which certain chemicals are allowed in drinking water. Congress made additions to this act in 1986 and 1988, which made it illegal to use lead in household plumbing.

Screening The process of testing children to determine if they have elevated blood-lead levels.

Solder A combination of metals used to join or patch metal parts or surfaces. Solder sometimes contains lead.

Solid waste Garbage, refuse, sludge or other discarded materials resulting from domestic, industrial, or commercial operations or from community activities.

Substrate A surface on which paint, varnish, or other coating has been applied or may be applied. Examples of substrates include wood, plaster, metal, and drywall.

Title X This law directs Federal agencies to develop regulations to strengthen and redirect national lead poisoning prevention efforts. Also called the Lead-Based Paint Hazard Reduction Act of 1992.

Trained The successful completion of a training course in one of the following disciplines: inspector, risk assessor, supervisor, project designer, and abatement worker. For lead hazard control work, the training course must be accredited by EPA or by an EPA-approved state program.

Treatment In residential lead hazard control work, any method designed to control lead-based paint hazards. This includes interim controls and abatement.

µg Short for microgram. A microgram is one millionth of a gram.

µg/dL Short for micrograms per deciliter. The measurement used to express how much lead is in your blood.

Wet cleaning The process of using a mixture of water and a household cleaner to remove lead dust.

Wet planing A process of smoothing off a surface. The surface is wet misted before being planned to keep dust levels down.

Wet scraping A process used to remove loose or chipping paint. The paint is wet misted before being scraped to keep dust levels down.

Window trough For a typical double-hung window, the part of the exterior window sill between the interior window sill and the frame of the storm window. This is sometimes inaccurately called the window "well." See also window well.

Window well The space that provides exterior access or light to a window that is below the level of the surrounding earth or pavement.

Worker An individual who performs lead hazard control work. Beginning in 1999, workers must be trained by an EPA-accredited provider and certified by EPA or a state or tribe to perform lead hazard control work.

Work area Any interior or exterior area where lead hazard control work is performed.

julio de 1998

DATOS SOBRE EL PLOMO Y ARSÉNICO EN EL SUELO RESIDENCIAL

Muestreo de suelo realizado por la EPA

La Agencia de Protección del Medio Ambiente de los Estados Unidos (EPA, por sus siglas en inglés) y el Departamento de Salud Pública y Medio Ambiente de Colorado (CDPHE, por sus siglas en inglés) hicieron un muestreo que indica que alguno suelo de las zonas residenciales de Elyria y Swansea en Denver, Colorado contienen plomo y arsénico en niveles de concentración que podrían representar una amenaza para la salud de los habitantes de esas áreas. La EPA está realizando un muestreo adicional para definir con mayor exactitud los datos sobre estas áreas.

Esta hoja de datos responderá a las preguntas que los residentes puedan tener sobre el plomo y el arsénico, los riesgos que implica dicha exposición y la manera de minimizar las posibilidades de exposición.

¿De qué manera estoy en contacto con el plomo y el arsénico?

El plomo es un metal común en muchos elementos de nuestra vida diaria. Se encuentra en la gasolina con plomo, las instalaciones sanitarias de las casas (cañerías y tuberías) y en la pintura. Durante la última década, las reglas gubernamentales han tratado de disminuir nuestra exposición al plomo originada por dichos productos, debido a que el plomo es una amenaza para la salud, en especial la de los niños. Aunque el arsénico ya no se usa comúnmente en productos de consumo, es un metal que se presenta naturalmente. Todos nosotros estamos expuestos a niveles bajos de arsénico en el aire, el agua y los alimentos.

Personas pueden estar en contacto con concentraciones más altas de estos metales en barrios donde la actividad industrial ha contribuido los metales al suelo. La exposición pasa por contactar directamente el suelo y el polvo contaminado. El contacto directo ocurre de tres maneras:

✓Al tragar tierra y polvo contaminado, o verduras cultivadas en suelo contaminado;

✓Al respirar aire que contenga partículas de polvo contaminadas dentro o fuera de la casa; o

✓Al tocar suelo o polvo contaminado.

Tragar tierra y polvo puede ocurrir de manera accidental al fumar o comer sin lavarse las manos.

Por lo general, los metales encontrados en verduras cultivadas en las huertas familiares tienen una concentración menor que la que está presente en el suelo. La aplicación de abono e otros fertilizantes de tierra tiende a reducir la absorción de los metales que se encuentran en el suelo. Sin embargo, es posible que ciertos fertilizantes lleguen a aumentar la cantidad de algunos metales que se encuentran en las verduras. Generalmente, los vegetales de hoja verde son los que tienen mayor probabilidad de absorber metales del suelo. La EPA hará un muestreo de verduras cultivadas en las huertas si encuentran los metales en altos niveles en las huertas.

La EPA tendrá una reunión
para hablar con los residentes de la zona
sobre los metales en el suelo
de las 5:00 pm hasta las 7:00 pm,
el 16 de julio, 1998,
en el Centro de Recreación de Swansea.

¡Otras reuniones seguirán!

¿ Que efecto en la salud tiene el plomo?

El plomo puede acumular en el cuerpo atraves del tiempo si la exposición está frecuente o continua. Puede causar daño cuando esté por encima de ciertos niveles. El plomo puede afectar el desarrollo del sistema nervioso, incluso la abilidad aprender y oir, y el sistema reproductivo. Los niños estén expuestos más al plomo debido a los siguientes razones.

✔ Sus cuerpos y sus cerebros todavía están en la etapa de desarrollo y absorban más plomo que los adultos.

✔ Los niños juegan mucho al aire libre, donde es más probable que tengan contacto con el plomo en el suelo. Es más probable que pongan los dedos y juguetes sucios en la boca.

¿Qué efecto en la salud tiene el arsénico ?

El arsénico no acumula facilmente en el cuerpo. La mayoría del arsénico absorbido en el cuerpo se pasa eficientamente en el orine. Efectos de salud dañino relativo a la exposición al arsénico a largo plazo incluyen cancer de los pulmones y de la piel y problemas con el sistema digestivo.

Es importante recordar que varios problemas de salud distintos también resultan en estos mismos síntomas. Lo más recomendable es consultar con un médico sobre las causas de cualquier problema de salud.

Debido a que algunas propiedades en el área contienen plomo y arsénico, la EPA tiene que evaluar los riesgos de los metales para los residentes. Si se determina que hay lugares con concentraciones del plomo y/o arsénico en el suelo que presentan un peligro inmediato para los residentes, la EPA tomará las medidas necesarias para restringir la exposición a estos metales.

¿Cómo puedo reducir mi exposición a los metales en la tierra?

Residentes en la area pueden tomar las siguientes precauciones para reducir su exposición al plomo y el arsénico:

☞ Lavarse muy bien las manos antes de comer o preparar los alimentos. Los padres también deben lavar las manos de sus hijos varias veces durante el día.

☞ Ambos los niños y los adultos deben lavarse las manos después de acariciar a perros u otros animales, porque el pelaje de los animales puede contener polvo contaminado.

☞ Evite fumar con las manos sucias.

☞ Lave todas las frutas y verduras cultivadas en su huerta.

☞ Lave los juguetes que los niños usan afuera de la casa, cuando estén sucios o polvosos.

☞ Mantenga su casa libre de polvo. Cierre las ventanas y puertas cuando haga mucho viento. Cambie con frecuencia los filtros del aire acondicionado y de las calderas a los menos cada seis meses.

☞ Limpie la casa con regularidad y use un paño húmedo para limpiar las superficies sobre que pasan las manos frecuentemente como las mesas y los escritorios.

Aunque tomar estas precauciones no solucionará el problema de la contaminación, son relativamente sencillas y ayudarán a disminuir el contacto con suelo contaminados. Por favor, hable con su médico, proveedor de servicios de salud o clínica regional si desea que les hagan a usted o a sus hijos un examen para detectar metales en el cuerpo.

¿Cómo puedo obtener más información?

Si tiene alguna duda o pregunta, por favor llame a:

Pete Stevenson, al (303) 312-6799
Pat Courtney, al (303) 312-6631
Ted Fellman (español), al (303) 312-6119
Wendy Thomi (español), al (303) 312-6025

September 1998

FACTS ABOUT LEAD AND ARSENIC IN RESIDENTIAL SOIL

EPA Samples Soil

The Environmental Protection Agency (EPA) and the Colorado Department of Public Health and Environment (CDPHE) conducted sampling which shows that some soil in the Elyria and Swansea neighborhoods in Denver, Colorado contain lead and arsenic at concentrations that may pose a health threat to area residents. EPA is now doing additional sampling to better define the areas of concern.

This fact sheet will answer questions residents may have about exposure to lead and arsenic, the risks of such exposure, and how people can minimize the possibility of exposure.

How can I come in contact with lead and arsenic?

Lead is a common metal used in many aspects of our daily lives. It is found in leaded gasoline, household plumbing, and paint. For the last decade, government regulations have tried to reduce our exposure to lead from such products because of lead's threat to health - especially children's health.

Although arsenic is not used in consumer products anymore, it is a naturally occurring metal. All of us are exposed to low levels of arsenic in air, water, and food.

People may come in contact with higher concentrations of these metals in neighborhoods where industrial activity may have contributed metals to soil. Exposure happens by directly contacting contaminated soil and dust. Direct contact occurs in three ways:

✓By swallowing contaminated soil, dust, or vegetables grown in contaminated soil;

✓By breathing air containing contaminated dust inside or outside the home: or

✓By touching contaminated soil or dust.

Swallowing soil and dust may accidentally happen while smoking or eating with unwashed hands.

Usually metals found in garden produce are lower than the metal concentration in the soil. Application of compost and other soil additives tends to decrease plant uptake of metals found in soil. However, some fertilizers may increase the amount of metals found in vegetables. Generally, green leafy vegetables are most likely to absorb metals from the soil. EPA may sample garden vegetables if metals are found at high levels in gardens.

EPA will have an availability session with residents to discuss metals in area soils at 6:00 pm on October 8, 1998, at the Swansea Recreation Center.

Other sessions will follow!

What are the health effects of lead?

Lead can accumulate in the body over time if exposure is frequent or continuous. It can cause harm if present above certain levels in the human body. Lead can affect the development of the nervous system, including impaired learning ability and hearing, and the reproductive system. Children are especially vulnerable to lead contamination for the following reasons:

✔ Their bodies and brains are still developing and they absorb more lead than adults.

✔ Children often play outside where they are more likely to be exposed to lead in the soil. They are more likely to put dirty fingers and toys into their mouths.

What are the health effects of arsenic?

Arsenic does not readily accumulate in the body. Most arsenic that is absorbed into the body is efficiently passed in the urine. Harmful health effects related to long-term exposure to too much arsenic include lung and skin cancer and digestive track problems.

It is important to remember that these same symptoms and illnesses can be caused by a variety of other health problems. It is best to ask a doctor about the causes of any health problems.

Because some properties in the area contain lead and arsenic, EPA must evaluate what risks they pose to residents. If it is determined that there are locations with concentrations of lead and/or arsenic in the soil that are immediately hazardous to residents, EPA will take action to limit their exposure to these metals.

How can I reduce my exposure to metals in the soil?

Residents in the area can take the following precautions to reduce their exposure to lead and arsenic:

☛ Wash hands thoroughly before eating or handling food. Parents should wash their children's hands periodically during the day as well.

☛ Both children and adults should wash their hands after petting a dog or other animal because animal fur can hold contaminated dust.

☛ Avoid smoking with dirty hands.

☛ Wash all home garden fruits or vegetables well.

☛ Wash children's outdoor toys when they are dirty or dusty.

☛ Keep your house free of dust. Keep windows and doors closed when it is windy. Change air conditioner and furnace filters at least every six months.

☛ Clean regularly and use a damp cloth to clean any surfaces that are frequently touched by hands, such as tables and desks.

While taking these measures will not solve the contamination problem, they are relatively simple and will help reduce your contact with contaminated soil. Please talk to your doctor, healthcare provider, or local clinic if you would like to have yourself or your child tested for metals in the body.

How can I get more information?

If you have questions, please call:

Pete Stevenson at (303) 312-6799

Pat Courtney at (303) 312-6631

Ted Fellman (español) at (303) 312-6119

Wendy Thomi (español) at (303) 312-6025

EPA Facts About *Arsenic*

June 1992

What is arsenic?

Arsenic is a naturally occurring element. Pure arsenic is a gray-colored metal, but this form is not common. It is usually found in combination with one or more other elements such as oxygen, chlorine, and sulfur. Arsenic combined with these elements is referred to as inorganic arsenic, whereas arsenic combined with carbon and hydrogen is referred to as organic arsenic. Organic forms of arsenic are usually less *toxic* than the inorganic forms.

Arsenic is produced primarily as a by-product from the operation of nonferrous smelters, glass manufacturing, pesticide production and application, and burning of fossil fuels. Arsenic is also produced as a result of natural forces, that is, volcanos and weathering of arsenic-containing rocks. The major uses of arsenic are as wood preservatives and agricultural pesticides.

How might exposure to arsenic occur?

Arsenic is very widely distributed in the environment, and everyone is exposed to low levels. For most people, food constitutes the largest source of arsenic intake, with lower amounts coming from air and drinking water. Some edible fish and shellfish contain elevated levels of arsenic, but this is predominantly in an organic form known as "fish arsenic" that has a low toxicity. Above-average levels of exposure are usually associated with one or more of the following circumstances: (1) Natural mineral deposits containing large quantities of arsenic (may result in elevated inorganic arsenic levels in drinking water); (2) Chemical waste disposal sites, which contain large quantities of improperly-contained arsenic, (may allow the chemical to escape into the groundwater); (3) Elevated levels of arsenic in soil (may lead to exposure from ingesting soil); (4) Manufacturing (smelting) of copper and other metals (often releases inorganic arsenic into the air); (5) Burning of fossil fuels (results in low levels of inorganic arsenic emissions into the air); and. (6)Widespread application of pesticides (may lead to water or soil contamination).

How does arsenic enter the body?

Arsenic enters the body principally through ingestion of food or water. Most ingested arsenic is quickly absorbed through the stomach and intestines and enters the blood stream. Arsenic which is inhaled (low levels of arsenic are present in cigarette smoke) is also well-absorbed into the blood stream through the lungs. Small amounts of arsenic may enter the body through the skin.

Most arsenic absorbed into the body is converted by the liver to a less-toxic form that is efficiently excreted in the urine. Consequently, arsenic does not have a strong tendency to accumulate in the body except at high exposure levels.

How can arsenic exposure affect human health?

Large doses of inorganic arsenic can be fatal. Lower levels of exposure may injure a number of different body tissues or systems, producing *systemic effects*. When taken orally, a common effect is irritation of the digestive tract, leading to pain, nausea, vomiting, and diarrhea. Other effects include decreased production of red and white blood cells, abnormal heart function, blood vessel damage, liver and/or kidney injury, and impaired nerve function causing a "pins and needles" feeling in the feet and hands.

Perhaps the systemic effect most characteristic of oral exposure to inorganic arsenic is a pattern of skin abnormalities including the appearance of dark and light spots on the skin, and small "corns" on the palms, soles, and trunk. Some of these corns may ultimately progress to skin cancer. Arsenic ingestion has also been reported to increase the risk of internal cancer, especially in the liver, bladder, kidneys, and lungs.

Inhalation exposure to inorganic arsenic dusts or fumes sometimes produces the same types of systemic health effects produced by oral exposure. However, this is not common, and the effects are usually mild. Of much greater concern is the ability of inhaled arsenic to increase the risk of lung cancer. Direct skin contact with arsenic compounds, frequently from inorganic arsenic dusts in air, may result in mild to severe irritation of the skin, eyes and throat.

Is there a medical test to identify arsenic exposure?

Measuring the levels of arsenic in urine is the best way to identify recent exposures. However, some common tests do not distinguish nontoxic forms such as fish arsenic from other forms. Consequently, a high concentration of arsenic in urine may not necessarily indicate a health problem. Measurement of arsenic in hair or fingernails is sometimes used to detect chronic exposures; however, this method is not very reliable for detecting low levels of arsenic exposure.

What levels of exposure have resulted in harmful health effects?

Generally, inorganic forms of arsenic are more toxic than organic forms, and forms that dissolve easily in water tend to be more toxic than those that dissolve poorly in water. Studies indicate considerable variation among different individuals, and it is difficult to identify with certainty the range of exposures which are of concern. The levels of arsenic that most people ingest in food or water are not usually considered to be a health concern. In fact, arsenic in trace amounts may be essential to good health.

For inhalation exposure, air concentrations of around 0.2 parts per billion (ppb) are associated with irritation to the nose, throat and exposed skin. The term "parts per billion" is a way of expressing the concentration of a contaminant in a liquid or air. One part per billion is equal to one inch in a distance of about sixteen thousand miles (or a penny in ten million dollars), a very small amount. Higher levels may occasionally lead to mild signs of systemic toxicity similar to that seen with oral exposure.

What currently happens to arsenic wastes?

The principal waste product of arsenic is slag, a by-product of ore smelting. Arsenic production is a dry operation (no water is used); only small quantities are discharged in wastewater. There is no recycling of arsenic from its principal use in wood preservatives and agricultural chemicals.

What recommendations has the federal government made to protect human health?

The U.S. Environmental Protection Agency (EPA) has established limits on the amount of arsenic released to the environment. EPA has also restricted or prohibited many of the uses of arsenic in pesticides and is considering further restrictions. EPA has established a *Maximum Contamination Level (MCL)* of 50 ppb for arsenic in drinking water.

GLOSSARY

Maximum Contaminant Level: EPA evaluates the health risks associated with various contaminant levels to ensure that public health is adequately protected. The MCL, as it is commonly known, is the maximum allowable concentration of a specific contaminant in public drinking water.

Systemic Effect: Impacts of contamination which affect the entire organism or bodily system.

Toxic: Acting as a poisonous or hazardous substance; having poisonous or harmful qualities.

For more information about Arsenic, please contact EPA at the following address:

U.S. Environmental Protection Agency
ATTN: Superfund Hotline
401 M Street, S.W.
Washington, D.C. 20460
1-800-424-9346 or 1-800-535-0202

The information contained in this fact sheet was compiled from the Toxicological Profile for Arsenic, Agency for Toxic Substances and Disease Registry, U.S. Public Health Service, in collaboration with the U.S. Environmental Protection Agency, March, 1989. *This fact sheet focuses on the impact of hazardous wastes on human health; however, EPA does evaluate these impacts on the environment, including plants and animals.*

Finding Lead in the Home

Facts about Lead Poisoning

Lead is part of our world today. It is found in the air, soil, paint of some older buildings and some food. Being exposed to too much lead can cause serious health problems. Lead is never a normal part of your body. The good news is that lead poisoning can be prevented.

Here are the answers to some of the common questions people ask about lead poisoning.

How can I tell if my child has too much lead in his/her body?

People with high levels of lead in their bodies often do not seem sick. The symptoms that occur are very general and can happen for many reasons. Your local public health clinic or family doctor can do a simple blood test to find out if there is too much lead in the blood. This blood test involves taking a small sample of blood from your child's finger. If the blood sample shows a problem with lead, more testing may be done.

Adults who think they may have been exposed to too much lead should also be tested.

Which children need to be tested?

A yearly test is advised for children ages 9 months to 6 years of age who:

- live or play in older housing (built before 1960) with chipping or peeling paint;
- live or play in a house where the lead-based paint is being removed;
- have brothers, sisters, housemates or playmates with moderate or high blood lead levels;
- live near a freeway with heavy traffic or a business where lead is used;
- live with an adult who works in a job or has a hobby where lead is used;
- are immigrants from Southeast Asia.

Call your local health department to find out how you can have your child tested.

What can I do to prevent lead poisoning?

If you work in a job where lead is used, don't forget that lead may be a health hazard. People working as painters, remodelers, auto repairworkers, plumbers and battery factory workers can all be exposed to lead on the job. Follow these safety rules to help protect you and your family.

- Wear protective equipment and clothing on the job
- Change your clothes, take a shower and wash your hair before leaving the job
- Do not shake out these work clothes and do not wash them with other clothing
- Do not eat, drink or smoke in an area where lead is used

Printed on Recycled Paper

The best way to prevent lead poisoning among young children is to remove the source of lead. If you cannot remove the peeling or chipping lead-based paint right away, block the area with a heavy chair so a child cannot get to it. You can also cover the area with masking tape, shut the door to a room or move a crib or bed away from the wall. Remove the lead source promptly.

Protect your child from lead dust by wet mopping the floors and wiping down your windowsills, woodwork, chairs and tables often. Be sure to wash your child's hands, face and toys often.

Is my child's diet important?

Yes, a well-balanced diet is very important. Meals high in fats and oils are not good because they can help the body absorb lead. Eating foods that are rich in calcium and iron allow the body to absorb less lead. Eating foods with Vitamin C helps increase the amount of iron in the blood. Eating a variety of foods as part of a well-balanced diet helps a child grow up healthy and strong.

Healthy Foods to Fight Lead

Foods High in Calcium
- Milk
- Yogurt
- Low-fat cheese
- Tofu
- Low-fat cottage cheese

Foods High in Vitamin C
- Oranges/Orange Juice
- Grapefruit/Grapefruit Juice
- Dark green, leafy vegetables
- Potatoes cooked in the skin
- Broccoli

Foods High in Iron
- Lean red meat
- Low-fat pork
- Dried beans, peas
- Raisins
- Iron fortified cereal
- Iron fortified infant formula

Is there a way to reduce high blood levels of lead?

There is a treatment used to bring down the blood lead level. Certain medicines combine with lead so the body can get rid of it more easily.

For more information about preventing lead poisoning and the removal of lead sources contact:

Colorado Department of Public Health and Environment

(303) 692-2686
Fax (303)782-0904
E-mail:Linda.Metzger@state.co.us

Linda S. Metzger, M.S.
Lead Poisoning Prevention Program
Disease Control & Environmental Epidemiology

DCEED-CBL-3642-A3
4300 Cherry Creek Drive South
Denver, Colorado 80246-1530

ARSENIC IN SOIL

Soil and Your Health

Doctors and scientists from the Agency for Toxic Substances and Disease Registry (ATSDR) have looked at test results from soil collected in you neighborhood to see whether the amount of arsenic is high enough to cause health problems for people who live in the area. ATSDR found that the amount of arsenic in some yards might be a health concern for some children and adults.

How Can Arsenic Get into the Body?

Soil that contains arsenic can get into your body:

- While playing
- While gardening
- While working in your yard

We sometimes touch things that have dirt or dust on them and the put our hands or other items into our mouths. When this happens, small amounts of arsenic can get into our bodies along with the dirt or dust.

Swallowing these small amounts of soil with arsenic usually will not cause health problems. But if arsenic in soil is too high, children and adults might become sick.

Adults and Arsenic

Arsenic levels and cancer are a concern for people who grew up in a house with high levels of arsenic in soil and who continued to live in the house as adults. These people could have a higher chance of getting certain types of cancer, such as skin cancer and cancer of the lung, bladder, kidney, and liver.

Children and Arsenic

Soil-Pica

Some preschool children eat large amounts of soil (1 teaspoon or more) while playing and exploring their world. This is called soil-pica behavior.

Soil-pica behavior is especially a concern for children who live in areas with high arsenic levels in soil. After eating large amounts of soil with high levels of arsenic, these children could have health problems, such as:

- Nausea or upset stomach
- Stomach cramps
- Vomiting
- Diarrhea
- Swelling of the face (especially around the eyes)
- Headaches

You Can Protect Yourself

Here are a few things that you can do to protect your family from arsenic in the soil. These tips are especially important if you live in an area with high arsenic levels in soil. These tips are good steps for everyone to follow:

- Watch your preschool children when they are playing outside. Keep them from eating dirt or mud and from putting toys in their mouths.
- Talk to older children about the possible danger of eating soil.
- Encourage preschool children to play in areas of the yard that are covered by grass.
- Talk to adults about not eating soil or mud from their yards.
- Wash child's hands at least 5 times per day and always before eating and taking naps
- Wash toys frequently

Kids at Play

Health Survey

Where Can I Get More Information About Exposure to Arsenic in Soil and Soil-Pica Behavior?

Chris Poulet, ATSDR Denver @ 303-312-7012

OR

Margaret Schonbeck, Colorado Department of Public Health and Environment @ 303-692-2636

LEAD IN SOIL

Soil and Your Health

Doctors and scientists from the Agency for Toxic Substances and Disease Registry (ATSDR) have looked at test results from soil collected in you neighborhood to see whether the amount of lead is high enough to cause health problems for people who live in the area. ATSDR found that the amount of lead in some yards is at levels that are of concern for some children.

Common Sources of Lead

- Soil
- Old house paint (especially houses built before 1960)
- Household dust
- Plastic window blinds
- Imported pottery/dishes
- Home remedies (Azarcon, Greta)
- Drinking water

How Can Lead Get into the Body?

Soil that contains lead can get into the body in many ways. When children play, they sometimes touch things that have dirt or dust on them and then put their hands or other items into their mouths. When this happens, small amounts of lead can get into their bodies along with the dirt or dust.

Swallowing small amounts of soil with lead usually will not cause health problems. But if the amount of lead in soil is too high, children might become sick.

Possible Health Effects from Lead

Most children with lead poisoning don't have symptoms. The only way to know if a child has lead poisoning is to get their blood tested. However, when children have high levels of lead in their bodies, they might have health problems, such as:

- Hearing problems
- Speech, language, and behavior problems
- Lowered intelligence scores
- Delays in development
- Trouble sleeping
- Poor muscle coordination
- Loss of appetite
- Headache

Ways to Prevent Children from Getting Lead Poisoning

- Wash child's hands at least 5 times per day and always before eating and taking naps
- Wash toys frequently
- Give them foods rich in Vitamin C, calcium, and iron
- Clean floors and window sills with detergent and water
- Wipe up any paint chips with a wet sponge, rag, or paper towels. If you suspect the paint has lead, throw the sponge, rage, or paper towels away after cleaning
- If you are remodeling an older home, NEVER dry sand or scrape lead based paint
- Encourage your children to play in grassy areas instead of on dirt.

Kids at Bay
Health Survey

Where Can I Get More Information About Exposures to Lead in Soil?

If you think your child has been exposed to lead, you may contact:

Mishelle Macias, Colorado Department of Public Health and Environment
@ 303-692-2622 or 303-692-2700

OR

Gene Hook, City and County of Denver, @ 720-865-5452

Eating Vegetables from your Garden in Swansea, Elyria, Cole, Clayton, & South Globeville

Soil Sampling in your Neighborhood . . .

As you might know, soil from yards in the Vasquez Boulevard and Interstate 70 Superfund Site study area (VBI-70 area) is currently being tested to see if it contains elevated levels of metals such as arsenic and lead. The study area includes the communities of Swansea, Elyria, Cole, Clayton, and south Globeville (south of Interstate 70 and west of Interstate 25). As the sample results become available, several public health agencies are looking at them to see if the metals that are found could cause health problems.

Eating Vegetables from your Garden . . .

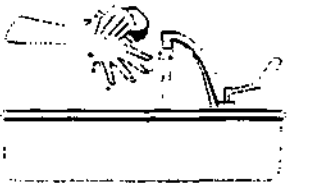
The Agency for Toxic Substances and Disease Registry (ATSDR) along with the Colorado Department of Public Health and Environment (CDPHE) just finished an evaluation that looked at fruits and vegetables that are grown in yards where metals are found in the soil. Since arsenic is the metal that has been found most often at elevated levels in the yards that have been sampled so far, the study answered these questions about arsenic:

✓ **If elevated levels of arsenic are found in the soil of gardens in the VBI-70 area, is it safe to eat home-grown fruits and vegetables?**

Yes, it is safe to eat fruits and vegetables that are grown in your garden in the VBI-70 area. It is not likely that eating home-grown fruits and vegetables will be harmful.

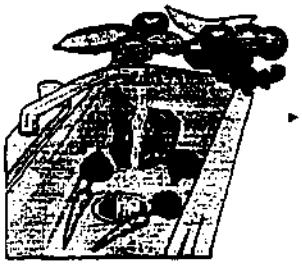
✓ **If there are elevated levels of arsenic in the soil, will arsenic also be found in the fruits and vegetables?**

Fruits and vegetables that are grown in soils with any level of arsenic will take up a small amount of arsenic through their roots. But the amount of arsenic that might be taken into your body from eating these fruits and vegetables is far below the levels that are known to cause illness.



✓ **Are there healthy ways to garden?**

Yes, the following tips are healthy practices for all gardeners:



- Wash your hands after working in the garden and before handling fruits and vegetables.
- Wash fruits and vegetables, especially low-growing vegetables like collard greens, spinach, and lettuce that are grown in your garden.

For More Information . . .

For more information about gardening and other health studies in your area, you may contact:

David Mellard	*Lourdes Rosales-Guevara*	*Jane Mitchell*
ATSDR	ATSDR (Spanish speaking)	CDPHE
1-888-42-ATSDR	1-888-42-ATSDR	(303) 692-2644

¿Come usted frutas y verduras cosechadas en su hortaliza en las colonias de Swansea, Elyria, Cole, Clayton y South Globeville?

Muestreo de los terrenos en su vecindario...

Como usted posiblemente sabe, se están analizando muestras de tierra de los terrenos localizados en el área de estudio del boulevard Vásquez y la autopista 70, para ver si contienen altos niveles de residuos de metales como arsénico, y plomo. Esta área incluye las comunidades de Swansea, Elyria, Cole, Clayton y South Globeville (al sur de la autopista 70). Conforme los resultados vayan saliendo, varias agencias de salud pública los estudiarán para ver si los metales encontrados pueden causar problemas de salud.

Si usted come frutas y verduras cosechados en su hortaliza...

La Agencia de Substancias Tóxicas y Registro de Enfermedades (ATSDR) del gobierno federal, junto con el Departamento de Salud Pública del estado de Colorado han terminado una evaluación de frutas y verduras cosechados en terrenos donde hay metales. El estudio trata de responder las siguientes preguntas acerca de la contaminación por arsénico, ya que éste ha sido el metal encontrado en mayor abundancia hasta ahora.

✓ **¿Si encuentran altos niveles de arsénico en la tierra, sería prudente comer frutas y verduras cosechadas en los terrenos del boulevard Vásquez?**

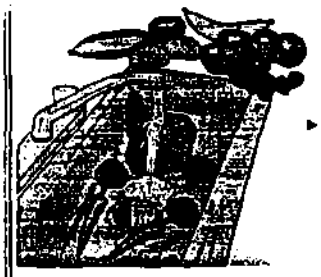
Si es seguro comer frutas y verduras cosechadas en las hortalizas del boulevard Vásquez. No es probable que comerse las frutas y verduras de esos terrenos les hagan daño a la salud debido a la presencia del arsénico.

✓ **¿Por que no es probable que comer frutas y verduras de esos terrenos haga daño a la salud si tienen altos niveles de arsénico?**

Porque las frutas y verduras cosechados en terrenos contaminados con cualquier nivel de arsénico absorben muy poca cantidad de este metal a travéz de sus raices. Asimismo, la cantidad de arsénico que podría entrar en su cuerpo comiendo estas frutas y verduras es inferior a los niveles que pueden causar enfermedad.

✓ **¿Hay alguna posibilidad de trabajar en el jardin sin riesgo para la salud?**

Por supuesto, las siguientes recomendaciones le permitiran trabajar el jardin sinique le afecte su salud:



- Lávese bien las manos después de haber trabajado en su terreno y antes de preparar las frutas y verduras que vaya a comer.
- Lave bien las frutas y verduras antes de comérselas, sobre todo las que crecen mas cerca de la tierra como son las espinacas y las lechugas.

Si desea más información...

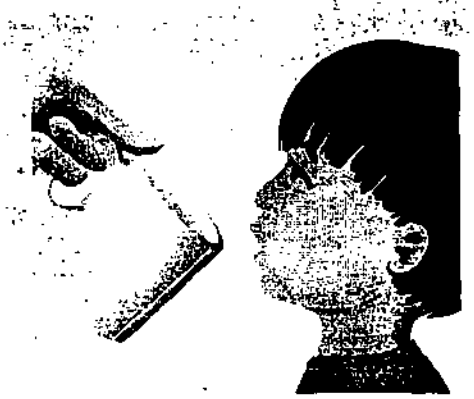
Si desea más información acerca de las investigaciones de salud relacionadas con la cosecha de frutas y verduras en su localidad, llame a:

David Mellard	***Lourdes Rosales-Guevara***	***Jane Mitchell***
ATSDR	ATSDR (Habla español)	CDPHE
1-888-42-ATSDR	1-888-42-ATSDR	(303) 692-2644

WASHINGTON LEAD SURVEILLANCE PROGRAM

EL PLOMO EN REMEDIOS CASEROS

LEAD *in home remedies*



AVISO:

Las medicinas y los remedios caseros pueden ayudar a curar a las personas enfermas. Sin embargo, algunos de estos remedios caseros contienen plomo y causan enfermedades graves.

¡ESTOS REMEDIOS CASEROS CONTIENEN PLOMO Y SON MUY PELIGROSOS!

Azarcón un polvo color naranja

también es conocido como Rueda, Coral, Maria Luisa, Alarcón, Liga

Greta un polvo amarillo

- El Azarcón y Greta son usados para curar el "empacho" (enfermedad intestinal).
- El Azarcón y Greta pueden contener casi 100% plomo. Cualquier cantidad es venenosa para niños y adultos.

¿POR QUÉ ES PELIGROSO EL PLOMO?

El envenenamiento con plomo puede perjudicar a los riñones, al sistema nervioso y al cerebro. Hay niños que han sufrido daños cerebrales permanentes y hasta han muerto debido al uso del Azarcón y Greta.

Los niños envenenados con plomo por lo general no parecen ni se comportan como si estuvieran enfermos. Cuando sí muestran señales de envenenamiento con plomo, sus síntomas pueden ser muy similares a los del empacho. Los síntomas de envenenamiento con plomo incluyen cansancio, insomnio, dolor de estómago y vómitos.

¿QUÉ PUEDO HACER SI HE TOMADO O LE HE DADO A MI NIÑO(A) UN REMEDIO CASERO QUE CONTIENE PLOMO?

Debe obtener atención médica inmediatamente. Llame a su doctor, clínica o departamento de salud local para obtener más información o para que le asistan con el tratamiento contra el envenenamiento con plomo. Haga una cita con el departamento de salud para obtener una prueba gratis que determina si su Azarcón o Greta contiene plomo. La información médica es confidencial. Su salud es lo que importa.

ANALISIS PARA SUS NIÑOS

Los niños entre los 1 año y los 6 años de edad corren el mayor riesgo de envenenamiento con plomo. La mayoría de los niños envenenados con plomo no parecen ni se comportan como si estuvieran enfermos. Pídale a su doctor que les haga una prueba para detectar el plomo en la sangre, y pídale que le explique a Ud. los resultados. Esta prueba es la única manera de saber si su niño(a) se está envenenando. La mayoría de los niños tendrán un nivel de plomo en la sangre de menos de 10µg/dL.

Para más información:
Departamento de Salud del Estado de Washington
Llame al 1-800-909-9898 a la línea telefónica gratuita.

Washington State Department of Health
DOH Pub 210-014 8/2001 Spanish

Para personas discapacitadas, este documento está disponible a su pedido en otros formatos. Por Favor, llame a 1-888-586-9427 (TDD transmisión 1-800-833-6388).

Adapted, with permission, from materials developed by the Childhood Lead Poisoning Prevention Branch of the California Department of Health Services.

WASHINGTON LEAD SURVEILLANCE PROGRAM

LEAD

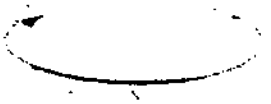
CAUTION:

Home remedies and medicines can help cure sick people. However, some of these home remedies contain lead and will make you sick.

THESE HOME REMEDIES CONTAIN LEAD AND ARE VERY DANGEROUS!!

Azarcon a bright orange powder

also known as Rueda, Coral, Maria Luisa, Alarcon, Liga



Greta a yellow powder

- Both Azarcon and Greta are given for "empacho" (intestinal illness).
- Both Azarcon and Greta are almost 100% lead. Any amount is poisonous to children and adults.

WHY IS LEAD DANGEROUS?

Lead poisoning can cause damage to the kidneys, nervous system, and brain. Children have suffered permanent brain damage and even died from the use of Azarcon and Greta.

Children with lead poisoning usually do not look or act sick. When they do show signs of lead poisoning, their symptoms can be very much like empacho. The symptoms of lead poisoning include tiredness, sleeplessness, stomachache, and vomiting.

WHAT CAN I DO IF I'VE TAKEN OR HAVE GIVEN CHILD A HOME REMEDY THAT CONTAINS LEAD

You should get medical attention immediately. Call your doctor, clinic, or local health department for more information or for help with treatment for lead poisoning. Ask your health department to arrange for a free test to determine if there is lead in your Azarcon or Greta. Medical information is confidential. Your health is the main concern.

You can also call the Poison Control telephone hotline in your area. Look for their number in the front of the white pages in your phone book. Someone is available 24 hours/day to answer your questions and help in an emergency.

TESTING YOUR CHILD

Children ages 1 year through 6 years are at greatest risk for lead poisoning. Most children with lead poisoning don't look or act sick. Ask your doctor to do a blood lead test, and to explain the results to you. This test is the only sure way to know if your child is being poisoned. Most kids will have a blood lead level of less than 10 µg/dL.

For additional information, please contact:
Washington State Department of Health
Lead Surveillance Program Call toll free: 1-800-909-9898

DANGER!! THESE HOME REMEDIES ALSO CONTAIN LEAD AND CAN MAKE YOU VERY SICK

Hmong community:

Pay-loo-ah a red powder given for a rash or fever

Asian Indian community:

Ghasard a brown powder given as an aid to digestion

Bala Goli a round, flat, black bean dissolved in "gripe water" and used for stomachache

Kandu a red powder used to treat stomach

Arab American community:

Kohl (Alkohl) a powder used both as a cosmetic eye make-up and applied to skin infections and the navel of a newborn child.

DOH Pub 210-014 8/2001

For persons with disabilities, this document is available on request in other formats. To submit a request, please call 1-800-525-0127

Adapted, with permission, from materials developed by the Childhood Lead Poisoning Prevention Branch of the California Department of Health Services.

Possible Sources of Lead

- Contaminated Soil
- House dust (from lead-based paint)
- Painted kitchen utensils
- Old toys (made of lead/lead paint)
- Antique dolls
- Burning lead-painted wood
- Tobacco smoke
- Bathtub glazes
- Leaded crystal glassware
- Imported ceramic/pottery dishes (glaze)
- Pewter dishware/jewelry/keychains
- Some colored inks (e.g., some comics)
- Colored foil seals on wine bottles
- Some wrappers on imported candy (ink)
- Tamarindo jam pots (glaze)
- Foreign orphanages
- Jewelry (ceramic and/or metal)
- Hobbies (stained glass, ceramics, artist paints)
- Baby powders (may be present in powders containing zinc oxide)

(OVER)

Possible Sources of Lead

- Old paint/varnishes
- Cultural medicines
  - Greta, azarcon, and paylooah
- Cosmetics
  - Surma and kohl
- Plastic mini blinds
- Pool cue chalk
- Some imported Crayons
- Solder (electrical and plumbing)
- Lead pipes
- Food stored in cans with lead solder
- Food grown in soils high in lead
- Plastic coatings on electrical wire
- Keys (brass)
- Plumbing fixtures (brass)
- Gun shooting/cleaning, lead shot/bullets
- Fishing sinkers
- Batteries
- Candles (some with metal wicks)
- Curtain weights

(OVER)

Otros Orígenes de Plomo

Medicinas Culturales
*Greta, Azarcon, y Paylooah
Cosméticos *Surma y Kohl
Pesas de cortinas
Balas de plomo
Pesos pescados de plomo
Baterías
Tierra
Gis de taco de billar
Crayolas de dibujar hecho en China
Soldadura de plomo
Cubiertos de plásticos por cables eléctricos
Orfanatos extranjeros
Cazuelitas mermeladas con vidriado Tamarindo

Mini-persianas de plástico
Utensilios pintados de cocinar
Juguetes antiguos con pintura de plomo
Muñecas anticuadas
Quemar madera con pintura de plomo
El vidriado de tina
Cristal de plomo
Platos arcillas, de cerámicas o alfarería importadas
Tintas coloradas (del periódicos o tiras cómicas)
Envoltura de dulce
Envoltura metal de color en botellos de vino

How do children become lead poisoned?

Children are most often poisoned by lead paint in older homes. Lead dust can come from repairing areas with lead paint, opening and closing windows, and through normal wear and tear of painted areas. Lead dust settles to the floor and gets on children's hands and toys. It enters their bodies when they put their hands or toys into their mouths.

Children can also become lead poisoned by eating, chewing, or sucking on things with lead paint, such as window sills, railings, or other painted surfaces.

Repairs and renovations of older homes increase the risk of lead poisoning. Children and pregnant women should not be in the home when this work is being done.

The MA Department of Public Health's Childhood Lead Poisoning Prevention Program offers free services and information to families.

For more information, contact:

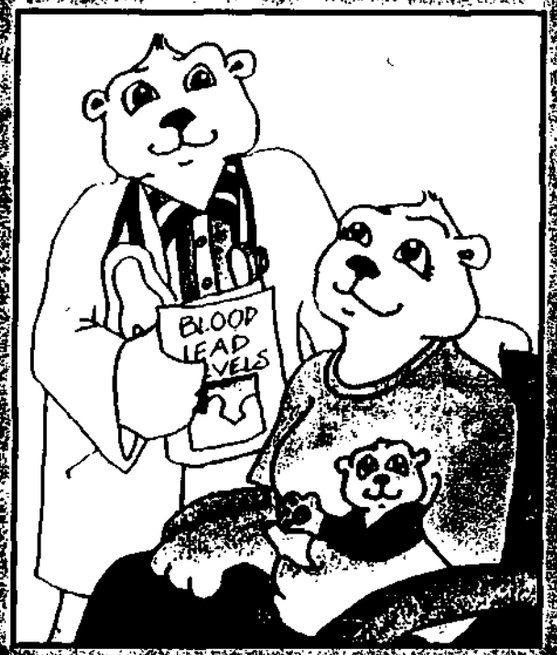
MA Department of Public Health
Childhood Lead Poisoning
Prevention Program
250 Washington St
Seventh Floor
Boston, MA 02108

at
1(800) 532-9571 (toll free)

www.state.ma.us/dph/clppp

This brochure was supported by funding from the United States Centers for Disease Control and Prevention.

Childhood Lead Poisoning Is Preventable



Has your child been tested for lead?

Massachusetts Department of Public Health
Childhood Lead Poisoning Prevention Program
(CLPPP)

What is lead poisoning?

Lead poisoning is most often caused by swallowing or breathing in lead dust. It can damage many systems and organs in the young child's developing body, especially the brain, kidneys, and nervous system.

Even at low levels, lead can slow normal growth and cause learning and behavioral problems. Many of the effects of lead can last a lifetime.

How will I know if my child has lead poisoning?

A blood test is the only way to tell if your child has lead poisoning. Your child can have lead poisoning and not look or act sick. Most children do not show any signs. Some children may feel very tired, have no appetite, or have headaches and stomach aches.

What is a lead test?

A lead test is a quick and easy test that can be done in the office of your health care provider. A little blood is taken from your child's finger or arm and tested for lead. If the test result is high, another test may be done. Ask your doctor, local lead program, or health center to test your child for lead.

Who should be tested for lead and how often?

Every child in Massachusetts must be tested at ages 1, 2 and 3. Four year olds who live in a high-risk community for childhood lead poisoning also must be tested. Some children should be tested more often if they are at higher risk.

If you answer yes or maybe to any of the following questions, your child may be considered at higher risk for lead poisoning. Be sure to tell your health care provider!

Do you live in housing built before 1978?

In 1978, lead was banned from house paint. If you are a tenant with a child under six years old, and are not sure if your home has lead paint, ask the owner or call your local board of health or your local lead program to do an inspection. Tenants with children or expecting a child may not be evicted or discriminated against because of lead paint.

Have you done any home renovations such as painting, scraping, or replacing windows since your child was born?

Simple home repairs like scraping paint before repainting or removing woodwork can make lead dust. This can create a hazard for the whole family. Repainting or removing woodwork can make lead dust. This may create a hazard for the whole family. Be careful whenever you work on painted areas. For information on how to do this work safely, call CLPPP.

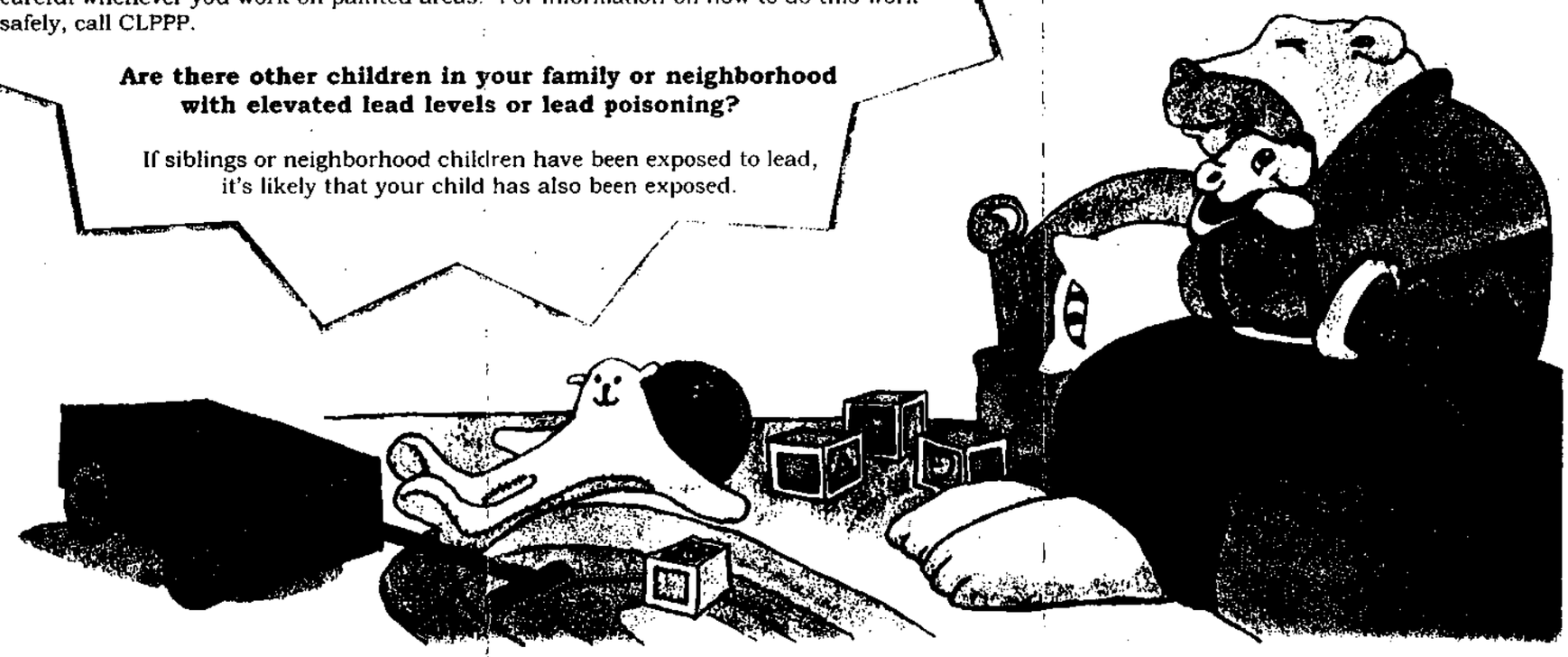
Are there other children in your family or neighborhood with elevated lead levels or lead poisoning?

If siblings or neighborhood children have been exposed to lead, it's likely that your child has also been exposed.

What if my child has lead poisoning?

Your health care provider will talk to you about lead poisoning and test your child again. Your child may be given iron or medicines that remove the lead. Also, a nurse or family counselor sent by CLPPP may visit you.

An inspector will test your home for lead paint and give you information on temporary ways to reduce the risk of lead poisoning. If lead paint hazards are found, they must be removed or covered by someone who has been properly trained to do the work safely.



¿De qué manera los niños se envenenan con plomo?

Los niños con mayor frecuencia se envenenan con plomo proveniente de la pintura de las casas antiguas. El polvo con plomo puede provenir de la reparación de áreas con pintura que contiene plomo, del abrir y cerrar ventanas, y del uso y desgaste normal de las áreas pintadas. El polvo con plomo se acumula en el piso y llega a las manos y los juguetes de los niños e ingresa en sus cuerpos al poner sus manos o juguetes en la boca.

Los niños también pueden envenenarse con plomo al ingerir, masticar o chupar cosas con pintura que contiene plomo, tales como roturas en ventanas, barandas u otras superficies pintadas.

Las reparaciones y restauraciones de casas antiguas aumentan el riesgo de envenenamiento con plomo. Los niños y las mujeres embarazadas no deben estar en casa cuando se realizan estos tipos de trabajo.

El Programa de Prevención del Envenenamiento Infantil con Plomo del Departamento de Salud Pública de Massachusetts proporciona información y servicios gratuitos a las familias.

Para obtener mayor información, comuníquese con:

MA Department of Public Health
Childhood Lead Poisoning
Prevention Program
56 Roland Street
Boston, MA 02129

(617) 284-8400
o
(800) 532-9571 (número gratuito)
Fax: (617) 284-8436

www.state.ma.us/dph/clppp

Este folleto fue financiado por los Centros de Control y Prevención de Enfermedades de los Estados Unidos.

El envenenamiento infantil con plomo se puede prevenir

Childhood Lead Poisoning Is Preventable

¿Le han hecho pruebas a su niño para ver si tiene plomo?

Departamento de Salud Pública de Massachusetts Programa de Prevención del Envenenamiento Infantil con Plomo(CLPPP)

¿Qué es el envenenamiento con plomo?

El envenenamiento con plomo es una enfermedad a menudo causada por ingerir o inhalar el polvo con plomo. Puede dañar muchos sistemas y órganos del cuerpo en crecimiento del niño pequeño, en particular el cerebro, los riñones y el sistema nervioso.

Incluso en valores bajos, el plomo puede disminuir el crecimiento normal y causar problemas de aprendizaje y de comportamiento. Muchos de los efectos del plomo pueden perdurar toda una vida.

¿Cómo puedo saber si mi niño está envenenado con plomo?

Una prueba de sangre es la única manera para saber si su niño está envenenado con plomo. Su niño puede estar envenenado con plomo y no parecer ni actuar como si estuviera enfermo. Muchos niños no muestran ningún signo. Algunos niños pueden sentirse muy agotados, no tener apetito o tener dolor de cabeza y de estómago.

¿Qué es una prueba de plomo?

Una prueba de plomo es un examen sencillo y rápido que puede hacerse en el consultorio de su profesional de la salud. Se obtiene un poco de sangre del dedo o brazo de su niño y se le hace la prueba para ver si tiene plomo. Si el resultado de la prueba es alto, se puede hacer otra prueba. Pídale a su médico, programa de plomo o centro de salud de su localidad que la haga pruebas a su niño para ver si tiene plomo.

¿Quiénes y con qué frecuencia deben hacerse pruebas para saber si tienen plomo?

Todos los niños en Massachusetts deben hacerse pruebas a las edades de 1, 2 y 3 años. Los niños de cuatro años que viven en una comunidad con alto riesgo de envenenamiento con plomo también deben hacerse pruebas. Algunos niños deben hacerse pruebas con mayor frecuencia si se encuentran en alto

Si su respuesta es "sí" o "tal vez" a alguna de las siguientes preguntas, puede que su niño se le considere en mayor riesgo de envenenamiento con plomo ¡Asegúrese de decírselo a su profesional de la salud!

¿Vive usted en una vivienda construida antes de 1978?

En 1978, se prohibió que haya plomo en la pintura de las casas. Si usted es un arrendador con un niño menor de seis años de edad, y no está seguro de que su hogar no tenga pintura con plomo, pregúntele al propietario o llame a su junta de salud o programa de plomo de su localidad para que haga una inspección. Los arrendadores con niños o que esperan un niño no pueden ser desalojados o no se les puede discriminar debido a la pintura con plomo.

¿Ha hecho alguna restauración en casa, tal como pintar, rasgar lo pintado o reemplazar las ventanas desde que su niño ha nacido?

Las simples reparaciones de la casa como rasgar la pintura antigua antes de volver a pintar o retirar un enmaderado pueden producir el polvo con plomo. Esto puede ocasionar un peligro para toda la familia. Volver a pintar o quitar los labrados en madera puede causar el polvo con plomo. Esto puede significar un peligro para toda la familia. Tenga cuidado cuando trabaje en áreas pintadas. Para obtener información sobre cómo hacer este trabajo de manera segura, llame al CLPPP.

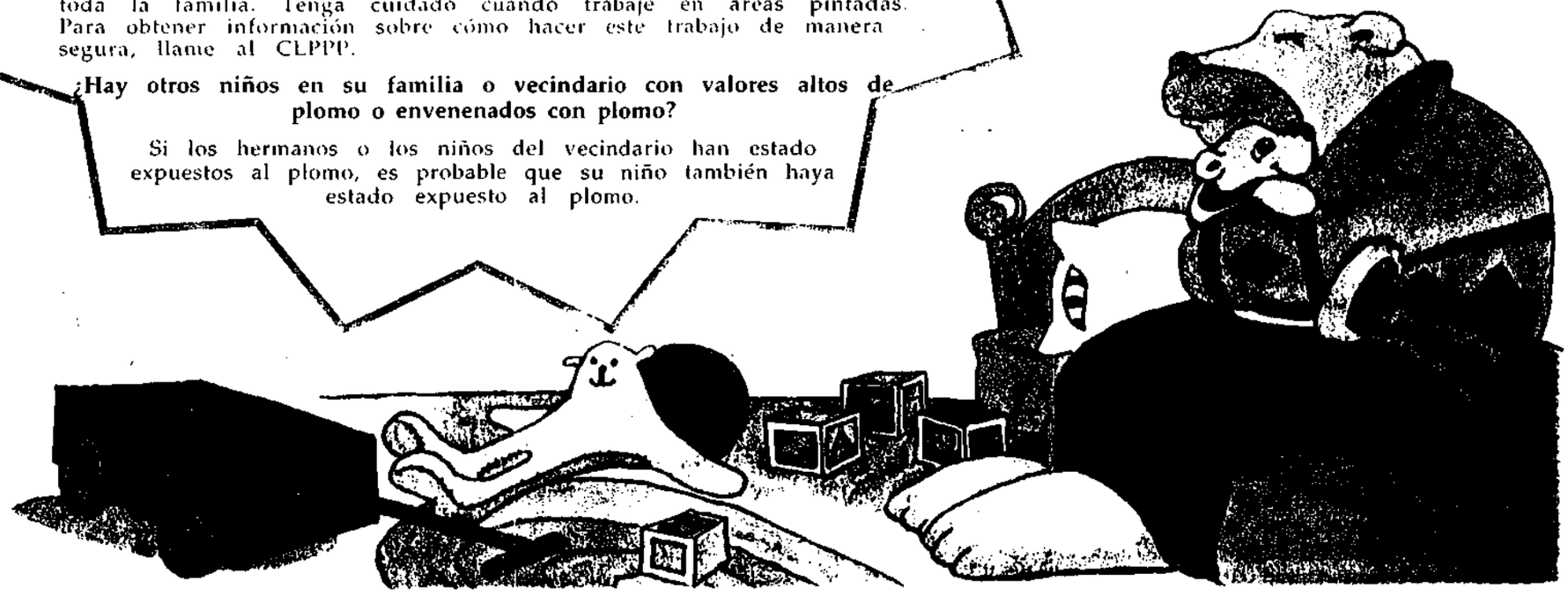
¿Hay otros niños en su familia o vecindario con valores altos de plomo o envenenados con plomo?

Si los hermanos o los niños del vecindario han estado expuestos al plomo, es probable que su niño también haya estado expuesto al plomo.

¿Qué sucede si mi niño está envenenado con plomo?

Su profesional de la salud conversará con usted sobre el envenenamiento con plomo y le hará pruebas a su niño de nuevo. Pueda que se le dé a su niño hierro o medicamentos que eliminen el plomo. También, un enfermero o consejero familiar enviado por el CLPPP puede hacerle una visita

Un inspector examinará su casa para ver si tiene pintura con plomo y le proporcionará información sobre las maneras temporales de disminuir el riesgo de envenenamiento con plomo. Si se encuentra que hay riesgo de pintura con plomo, tendrá que ser eliminado o recubierto por una persona que ha sido adecuadamente entrenada para hacer este tipo de trabajo de manera segura.



Finger or Arm?

To understand the meaning of a blood lead level, it is important to know how the blood sample was taken from your child. Did the health care provider prick your child's finger (capillary) or draw a sample from the child's arm (venous)?

If the blood sample was a capillary, the test result sometimes comes back higher than the true lead level because of lead on the fingertip. A venous blood sample is more accurate. If your child's blood lead test was a capillary sample, and the test result is 10 mcg/dL or above, you should have the child tested again with a venous blood sample, to be sure of the level.

The MA Department of Public Health's Childhood Lead Poisoning Prevention Program offers free services and information to families.

For more information, contact:

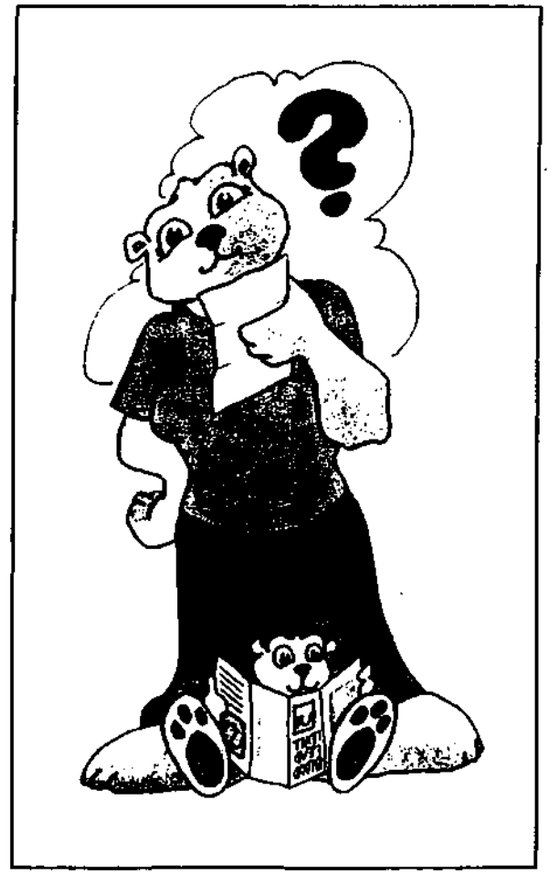
MA Department of Public Health
Childhood Lead Poisoning
Prevention Program
56 Roland Street
Boston, MA 02129

(617) 284-8400
or
(800) 532-9571 (toll free)
Fax: (617) 284-8436

www.state.ma.us/dph/clppp

This brochure was supported by funding from the United States Centers for Disease Control and Prevention.

What does your child's blood lead level mean?



Massachusetts Department of Public Health
Childhood Lead Poisoning Prevention Program
(CLPPP)

What is lead poisoning?

Lead is a toxic metal which is found in many places. While no amount of lead in the human body is good, we all have some level of lead in us, no matter where we live or work. Lead poisoning is a disease caused by too much lead in the body.

Children between the ages of nine months and six years are most at risk. Lead poisoning can result in serious harm to a child's brain, kidneys, nervous system and red blood cells.

How does a child become lead poisoned?

Almost all lead poisoning in Massachusetts' children comes from lead paint in older homes. Children do not have to eat lead paint chips or chew on lead painted surfaces to become lead poisoned. Most children get lead poisoning from swallowing lead paint dust that gets on their hands or toys, and which they then put in their mouths.

Understanding Lead Levels

Under 10 mcg/dL

Most children in Massachusetts have lead levels in this range. The average blood lead level of Massachusetts' children under six years of age is 3 to 4 mcg/dL (micrograms per deciliter).

A blood test is the only way to tell if your child has lead poisoning. Children must be tested once for lead between 9 and 12 months of age, and then again at ages two and three. Four year olds who live in a high-risk community for childhood lead poisoning also must be tested. Your child's doctor or health care provider will ask you questions to help him or her decide whether your child is at high risk for lead poisoning, and needs to be tested more often.

[illegible] mcg/dL

Under state law, a child who is under six years of age with a lead level of 25 mcg/dL or above is lead poisoned. Some children with lead levels in this range may show clear effects of lead exposure, such as speech delays, behavioral problems, difficulty paying attention, crankiness, loss of recently learned skills or loss of appetite. The child will receive medical care and may have to stay in the hospital.

A CLPPP lead inspector must inspect the child's home. If lead hazards are found, the property owner will be required to delead the home. A visiting nurse, social worker, or community health worker from CLPPP will teach hazard reduction techniques. Parents should learn ways to protect their child from lead until the home is deleaded. It is important to retest the child in one month or less, depending on the child's lead level.

10-14 mcg/dL

A child with a lead level in this range has what the U.S. Centers for Disease Control calls a "level of concern." This means that the child's blood lead level is elevated and should be watched. CLPPP can help parents learn about sources of lead and what they can do to keep their child safe from lead. If the child lives in a home built before 1978, the home should be inspected for lead paint hazards. It is important that the child be tested again within three months with a venous sample.

15-19 mcg/dL

A child with a lead level in this range has a high enough level of lead in his or her body that it is even more important to find out where he or she may be getting lead. The home should be inspected for lead. Most children with blood lead levels in this range show no symptoms. A nurse or community health worker from CLPPP will offer to teach parents about lead poisoning prevention in their home. CLPPP will help parents learn ways to protect their child from lead. It is important that the child be tested again with a venous sample within two months.

[illegible]

A child in this range has a high lead level and may begin to show some speech delays and behavioral problems. A CLPPP inspector will offer to inspect the child's home for lead paint, and CLPPP strongly recommends that parents accept the offer. If lead hazards are found, the property owner will be required to delead the home. A community health worker, nurse or social worker from CLPPP will offer to teach parents about lead poisoning prevention in their home. Parents should learn ways to protect their child from lead. It is important that the child be tested again with a venous sample within one month.

Over 45 mcg/dL

A lead poisoned child with a lead level in this range is considered a medical emergency. The child may have seizures, vomit or be very tired. He or she must see the doctor right away. The child will need to be treated and may be admitted to the hospital. A CLPPP inspector will inspect the child's home for lead paint right away. If lead hazards are found, the property owner will be required to delead. A visiting nurse sent by CLPPP will help parents care for the child and will teach them about lead poisoning prevention in their home.

¿Dedo o Brazo?

A fin de comprender el significado de un valor de plomo en la sangre, es importante saber de qué manera se obtuvo la muestra de sangre de su niño. ¿El profesional de la salud le hincó el dedo (vía capilar) a su niño para obtener la muestra o la obtuvo de su brazo (vía venosa)?

Si la muestra de sangre fue capilar, el resultado de la prueba a veces sale más alto que el valor verdadero de plomo debido al plomo en las yemas de los dedos. Una muestra de sangre por la vía venosa es más precisa. Si la prueba de plomo en la sangre de su niño fue una muestra capilar y el resultado de la prueba es 10 mcg/dL o más, debe hacer que le hagan la prueba a su niño de nuevo con una muestra de sangre por la vía venosa, para estar seguros del valor de plomo en la sangre.

El Programa de Prevención del Envenenamiento Infantil con Plomo del Departamento de Salud Pública de Massachusetts proporciona información y servicios gratuitos a las familias.

Para obtener mayor información, comuníquese con:

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www.state.ma.us/dph/clppp

[illegible] financiado por los Centros [illegible] Prevención de Enfe[illegible] Unidos [illegible] Spanish 01-02

¿Qué significan los valores de plomo en la sangre de su niño?

What does your child's blood lead level mean?

Departamento de Salud Pública de Massachusetts
Programa de Prevención de del Envenenamiento Infantil con Plomo (CLPPP)

¿Qué es el envenenamiento con plomo ?

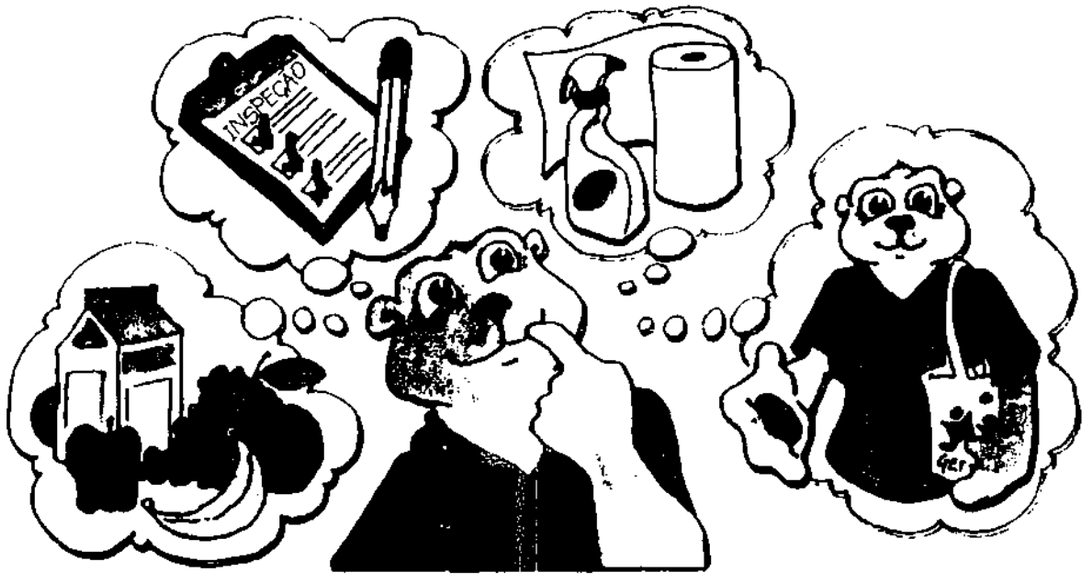
El plomo es un metal tóxico que se encuentra en muchos lugares. Si bien es cierto que ninguna cantidad de plomo en el cuerpo humano es buena, todos tenemos algún valor de plomo en el cuerpo, sin importar en donde vivimos o trabajamos. El envenenamiento con plomo es una enfermedad causada por tener demasiado plomo en el cuerpo.

Los niños entre las edades de nueve meses y seis años se encuentran en mayor riesgo. El envenenamiento con plomo puede resultar en daños serios al cerebro, los riñones, el sistema nervioso y los glóbulos rojos del niño.

¿De qué manera un niño se envenena con plomo?

Casi todos los casos de envenenamiento infantil con plomo de Massachusetts provienen de la pintura que contiene plomo en casas antiguas. Los niños no necesitan ingerir plomo o pedazos de pintura o masticar superficies con pintura que contiene plomo para que se envenenen. La mayoría de los niños se envenenan con plomo al absorber el polvo de la pintura que contiene plomo que se acumula en sus manos o juguetes, y que después los ponen en su boca.

Cómo comprender los valores de plomo en la sangre



Menos de 10 mcg/dL

La mayoría de los niños en Massachusetts tiene valores de plomo en este margen. El valor promedio de plomo en la sangre en los niños de Massachusetts menores de seis años de edad es de 3 a 4 mcg/dL (microgramos por decilitro).

Una prueba de sangre es la única manera de saber si su niño está envenenado con plomo. Los niños deben hacerse pruebas para saber si tienen plomo una vez entre los 9 y 12 meses de edad y después de nuevo entre los dos a tres años de edad. Los niños de cuatro años que viven en una comunidad con alto riesgo de envenenamiento con plomo también deben hacerse pruebas. Su médico o profesional de la salud le hará preguntas para ayudarle a determinar si su niño se encuentra en alto riesgo de envenenamiento con plomo y si necesita hacerse pruebas con mayor frecuencia.

De 10-14 mcg/dL

Un niño con un valor de plomo en este margen tiene lo que los Centros de Control y Prevención de Enfermedades de los Estados Unidos llaman un "valor para preocuparse". Esto quiere decir que el valor de plomo en la sangre de su niño está alto y se debe tener cuidado. El Programa de Prevención del Envenenamiento Infantil con Plomo (CLPPP, por sus siglas en inglés) puede ayudar a los padres a informarse sobre las fuentes de plomo y lo que pueden hacer para mantener a sus niños a salvo. Si el niño vive en una casa construida antes de 1978, la casa debe ser inspeccionada para ver si hay peligro de pintura que contiene plomo. Es importante que se le haga pruebas al niño de nuevo dentro de los tres meses con una muestra venosa.

De 15-19 mcg/dL

Un niño con un valor de plomo en este margen tiene un valor bastante alto de plomo en su cuerpo y es incluso más importante averiguar de dónde obtiene el plomo. La vivienda debe ser inspeccionada para detectar la presencia de plomo. La mayoría de los niños con valores de plomo en la sangre en este margen no muestran síntomas. Un enfermero o asistente de salud de la comunidad del CLPPP se ofrecerá para enseñar a los padres sobre la prevención del envenenamiento con plomo en su hogar. El CLPPP ayudará a los padres para que aprendan algunas maneras de proteger a sus niños del plomo. Es importante que se le haga pruebas al niño de nuevo con una muestra venosa dentro de los dos meses.

De 20-44 mcg/dL

Un niño en este margen tiene un alto valor de plomo y puede comenzar a mostrar atrasos en el habla y problemas de comportamiento. Un inspector del CLPPP se ofrecerá para inspeccionar el hogar del niño para ver si hay pintura que contiene plomo, y el CLPPP recomienda que los padres acepten esta inspección. Si se encuentra que hay riesgos de plomo, se requerirá que el dueño de la propiedad elimine el plomo de la casa. Un asistente de salud de la comunidad, enfermero o asistente social del CLPPP se ofrecerá para enseñar a los padres sobre la prevención del envenenamiento con plomo en su hogar. Los padres deben aprender algunas maneras de proteger a sus niños del plomo. Es importante que se le haga pruebas al niño de nuevo con una muestra venosa dentro de un mes.

De 45-45 mcg/dL

Según la ley del Estado, un niño que es menor de seis años de edad con un valor de plomo de 25 mcg/dL o más está envenenado con plomo. Algunos niños con valores de plomo en este margen pueden mostrar efectos evidentes de exposición al plomo, tales como atrasos en el habla, problemas de comportamiento, dificultades para prestar atención, mal humor, pérdida de destrezas recientemente adquiridas o pérdida del apetito. El niño recibirá atención médica y pueda que tenga que hospitalizarse.

Un inspector de plomo del CLPPP debe examinar el hogar del niño. Si se encuentra que hay riesgo de plomo, se requerirá que el dueño de la propiedad elimine el plomo de la casa. Un enfermero a domicilio, asistente social o asistente de salud de la comunidad del CLPPP enseñará ciertas técnicas para disminuir el peligro. Los padres deben aprender algunas maneras de proteger a sus niños del plomo hasta que se elimine el plomo de la casa. Es importante que se le haga pruebas al niño de nuevo dentro de un mes o antes, dependiendo del valor de plomo en la sangre del niño.

Más de 45 mcg/dL

A un niño envenenado con plomo con un valor de plomo en este margen se le considera una emergencia médica. El niño puede tener convulsiones, vómitos o puede sentirse muy agotado. Debe ir a ver al médico inmediatamente. El niño necesitará seguir un tratamiento y ser hospitalizado. Un inspector del CLPPP examinará inmediatamente el hogar del niño para ver si hay pintura que contiene plomo. Si se encuentra que hay riesgo de plomo, se requerirá que el dueño de la propiedad elimine el plomo de la casa. Un enfermero a domicilio enviado por el CLPPP ayudará a los padres a atender a su niño y les enseñará sobre la prevención de envenenamiento con plomo en la casa.

Foods *that* *Fight*

Lead Poisoning

in your children ages 1 to 10 years

Colorado Department of Public Health and Environment

It's harder for lead to get into your children's bodies when they eat regular meals and snacks high in **iron**, **vitamin C**, and **calcium**.

Iron

- Lean meat, especially beef/pork
- Chicken, turkey, veal
- Wild game, buffalo
- Ham
- Fish, sardines, tuna
- Shrimp, oysters, clams
- Scallops
- Eggs
- Nuts and seeds
- Dried beans and peas
- Cereal with iron
- Whole grain breads
- Enriched breads
- Wheat germ
- Dark green leafy vegetables
- Greens (beet, swiss chard, spinach)
- Dried apricots, peaches, prunes
- Prune juice
- Raisins
- Dates
- Blackstrap molasses

Feed your children foods rich in Iron and Vitamin C together, to help their bodies absorb the iron better.

Vitamin C

- Broccoli
- Brussels sprouts
- Cabbage
- Cantaloupe
- Cauliflower
- Chile peppers, green chile
- Grapefruit, grapefruit juice
- Green pepper
- Guava
- Honeydew
- Kiwi fruit
- Mango
- Mandarin oranges
- Oranges, orange juice
- Papaya
- Potatoes with skins
- Raspberries
- Red bell peppers
- Spinach
- Strawberries
- Sweet potatoes
- Tangerines
- Tomatoes, tomato juice
- Vitamin C-fortified juice

Calcium

- Milk (low-fat after age 2)
- Yogurt
- Cheese
- Ice cream
- Pudding
- Cottage cheese
- Soymilk
- Calcium-fortified orange juice
- Tofu
- Canned fish with edible bones
- Almonds
- Legumes (beans, lentils)
- Leafy greens
- Broccoli
- Blackstrap molasses

Did you know?

- Too much fat makes the body absorb more lead, so avoid fatty foods such as fried foods, lard, chips, bacon, sausage, and donuts.
- Children with empty stomachs absorb more lead. Give them 3 meals and 2 to 3 snacks a day.

Sample menu

Breakfast
Milk, dry cereal, orange juice

Snack
Whole wheat crackers, applesauce

Lunch
Tuna sandwich, banana, carrot sticks, milk

Snack
Graham crackers, yogurt

Dinner
Lean hamburger patty, noodles, broccoli, bread, milk

For more information

Lead Poisoning Prevention Program
Disease Control and Environmental Epidemiology Division
Colorado Department of Public Health and Environment

303-692-2700 or
1-800-886-7689 ext 2700
www.cdphe.state.co.us

Alimentos *que* *Combaten*

El Envenenamiento con Plomo

[illegible] años de edad

Colorado Department of Public Health and Environment

Es más difícil que el plomo entre en el cuerpo de sus niños si comen comidas y meriendas regulares, y alimentos ricos en **hierro, vitamina C, y calcio.**

Hierro

- Carne baja en grasa de res y de cerdo
- Pollo, pavo, venado
- Búfalo
- Jamón
- Pescado, sardinas, atún
- Camarón, ostras, mejillones
- Escalopes, almejas
- Huevos
- Fruta seca, nueces, y semillas comestibles
- Frijoles y guisantes (chícharos) secos
- Cereales con hierro
- Panes de grano entero
- Panes enriquecidos con hierro
- Germen de trigo
- Verduras de hojas verdes
- Hojas de espinaca, remolacha
- Duraznos, ciruelas y pasas secas
- Jugo de ciruelas
- Dátiles, pasas
- Melazas

Coma los alimentos con **Hierro** con los alimentos con **Vitamina C** al mismo tiempo para ayudar a que el cuerpo de su niño absorba mejor el hierro.

Vitamina C

- Brócoli
- Repollito de bruselas
- Repollo
- Melón Cantalupo
- Coliflor
- Chiles
- Toronja, jugo de toronja
- Pimientos verdes
- Kiwi
- Mango
- Guayaba
- Naranjas, jugo de naranja
- Naranjas mandarinas
- Papaya
- Papas sin pelar
- Pimientos rojos
- Frambuesas
- Espinacas
- Fresas
- Bananas, camotes
- Mandarinas
- Tomate, jugo de tomate
- Melón de pulpa verdosa dulce
- Jugo fortificado con vitamina C

Calcio

- Leche entera (leche baja en grasa después de 2 años de edad)
- Yogurt
- Queso
- Helado, nieve
- Pudín
- Requesón
- Leche de soya
- Jugo de naranja fortificado con calcio
- Tofu
- Pescado enlatado como salmón y sardinas
- Almendras
- Legumbres (frijoles, soya)
- Verduras de hojas verdes (verdes de nabos, verdes de collard y rizada)
- Brócoli
- Melazas

¿Sabía Ud.?

- Los niños con estómagos vacíos absorben más plomo. Dóles 3 comidas y 2-3 meriendas al día.
- Demasiada grasa hace que el cuerpo absorba más plomo, por lo tanto evite alimentos grasosos como alimentos fritos, papitas, manteca, tocino, chorizo, donas, etc...

Menú de Muestra

Desayuno

Leche, cereal seco, jugo de naranja

Merienda de la Mañana

Galleta de grano entero, compota de manzanas

Almuerzo

Sándwich de atún, plátano o banana, zanahorias, leche

Merienda de la Tarde

Galletas de graham, yogurt

Cena

Carne de hamburguesa baja en grasa, fideos, brócoli, pan, leche

Para más información

Programa de la Prevención del Envenenamiento por Plomo
División de Control de Enfermedades y Epidemiología
El Departamento de Salud Pública y Medio Ambiente del Estado de Colorado

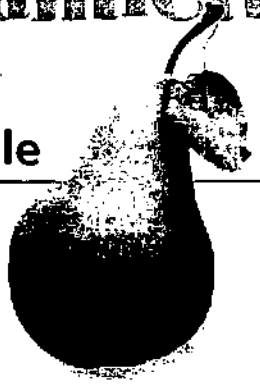
303-692-2700 ó
1-800-886-7689 ext 2700
www.cdphe.state.co.us

EPA

Combata el Envenenamiento con Plomo

con una dieta saludable

Consejos para prevenir
el envenenamiento con plomo



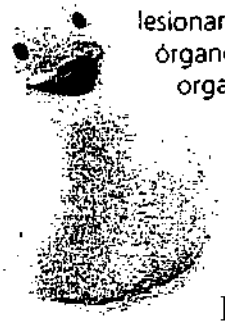
LEAD Awareness Program

El plomo y una dieta saludable

Lo que puede hacer para proteger a su hijo

Efectos del plomo sobre el organismo

El plomo es un metal tóxico que nuestros organismos no pueden utilizar. El envenenamiento con plomo puede ocasionar problemas auditivos, de conducta y de aprendizaje, y puede lesionar el cerebro, los riñones y otros órganos de los niños. El plomo en el organismo impide que los minerales como el hierro y el calcio se utilicen adecuadamente. Algunos de estos efectos pueden ser permanentes.



Aprenda a detectar el plomo por el bien de su hijo

Por lo general los niños con envenenamiento con plomo no se ven ni parecen enfermos. La única forma de saber si el niño tiene un envenenamiento con plomo es haciéndole un análisis de sangre. Pida al médico o a un profesional de salud que examine a los niños menores de seis años de edad por lo menos una vez al año.

Peligros del plomo

¿Dónde se encuentra el plomo?

Fuentes principales del plomo

Las pinturas a base de plomo constituyen un peligro si están descascaradas o si sueltan polvillo o partículas. Incluso una pintura a base de plomo que parezca estar en buen estado puede representar un problema si recubre una superficie que los niños mastican o que esté deteriorada. Cuanto más viejo sea su hogar, mayor será la probabilidad de que tenga pinturas a base de plomo.

No guardar **alimentos** en cerámica esmaltada **importada de otros países.**

Un polvo contaminado se forma cuando las pinturas de plomo se arrancan en seco o se lijan. El polvo también puede contaminarse cuando las superficies pintadas chocan o se rozan entre sí. Las partículas y el polvo con plomo se acumulan sobre superficies y objetos que la gente toca o que los niños se llevan a la boca.

Suelo contaminado ocurre cuando las pinturas a base de plomo del exterior de casas, edificios u otras estructuras se pelan o sueltan partículas que llegan al suelo. El suelo cercano a las carreteras puede estar también contaminado, debido a que antes se utilizaba gasolina con plomo en los vehículos. Evite estas zonas cuando siembre huertas de verduras.

Otras fuentes del plomo

Agua potable contaminada, proveniente de tuberías viejas de plomo

Juguetes pintados y muebles del hogar a base de plomo

Cerámica esmaltada de plomo y cristal cortado

Plomo fundido

Pasatiempos

Remedios caseros como el azarcon y el pay-loo-ah

Cosméticos como el kohl y el kajal

Ideas para las comidas y las meriendas

Consejos para ayudarle a Usted y a los niños a planear comidas y meriendas

Desayuno	Almuerzo	Cena
Rosquitas de avena Bananas en rodajas Jugo de naranja	Sándwich de queso y tomate Ensalada de repollo Leche baja en grasa	Sándwich de carne baja en grasa (Sloppy Joes) Sandía Leche baja en grasa
-o-	-o-	-o-
Tortilla de huevo con queso Salsa de manzana Leche baja en grasa	Sándwich de ensalada de atún Jugo de cranberry Tajada de pera	Macarrones con queso Tomates guisados Tajada de melón
-o-	-o-	-o-
Pan tostado a la francesa Tajada de naranja Leche baja en grasa	Pizza de bagel Jugo 100% de fruta Albaricoques frescos o enlatados Leche baja en grasa	Guiso de pollo Arroz Fresas

El envenenamiento con plomo ocurre **sin** ningunos **síntomas obvios** y **daña** el organismo de su hijo.

Muchos de los alimentos enumerados en este folleto se pueden comprar con los vales de alimentos del programa WIC. Si desea conocer más acerca del WIC, llame al pediatra de su hijo o visite la página de internet www.fns.usda.gov/wic

Entre comidas ofrézcales meriendas como:

Cereal con leche baja en grasa, galletas de trigo integral con queso, tajadas de manzana o pera, naranjas o bananas, uvas pasas, yogur, helados de jugos de frutas y sorbetes de frutas.

Rosquitas de Avena • Rinde de 4–6 porciones

1 1/2 taza de avena de rápida cocción (Quick Cooking)
1/3 taza de mantequilla de cacahuete
1/3 taza de jalea de fruta o mermelada

Procedimiento:

- Siga las direcciones del paquete para cocinar la avena.
- Añada la mantequilla de cacahuete y jalea encima de la avena cocida.
- Mezcle y vierta la mixtura en un envase.
- Sírvala con leche baja en grasa.

Tortilla de Huevo con Queso • Rinde de 2–3 porciones

3 huevos
1 cucharada de leche baja en grasa
Aceite vegetal
3 cucharadas de queso

Procedimiento:

- Mezcle los huevos y la leche en un envase.
- Añada un poquito de aceite vegetal en el sartén. Use fuego mediano.
- Añada la mixtura de huevo y cocine.
- Cuando la tortilla se cocine en el fondo, añádale el queso.
- Cuando el queso se derrita, doble la tortilla por la mitad.
- Cúbrala con salsa si así lo desea.
- Sírvala con tostadas, fruta y leche baja en grasa.

Pan Tostada a la Francesa • Rinde de 4–6 porciones

3 huevos batidos
1/2 taza de leche baja en grasa
Aceite vegetal
6 rebanadas de pan
Canela
2 bananas, cortadas en rodajas

Procedimiento:

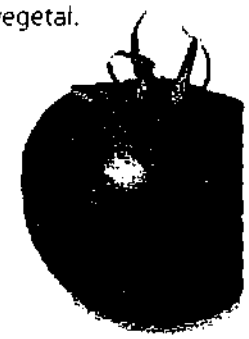
- Mezcle los huevos con la leche.
- Añada un poquito de aceite vegetal en el sartén. Use fuego mediano.
- Sumerja el pan en la mezcla de huevo hasta que se cubra.
- Cocine el pan por un lado.
- Espolvoree canela por encima.
- Dele la vuelta y cocine el otro lado. Trate con rodajas de banana.
- Sírvala con leche baja en grasa.

Sándwich de Queso Derretido y Tomate • Rinde una porción

2 rebanadas de pan
2 rebanadas de queso americano
1 rebanada de tomate
Aceite vegetal

Procedimiento:

- Haga el sándwich usando el pan, queso y tomate.
- Cubra levemente el sartén con aceite vegetal.
- Fría el sándwich por ambos lados hasta derretir el queso.
- Sírvalo con leche baja en grasa o jugo de fruta.

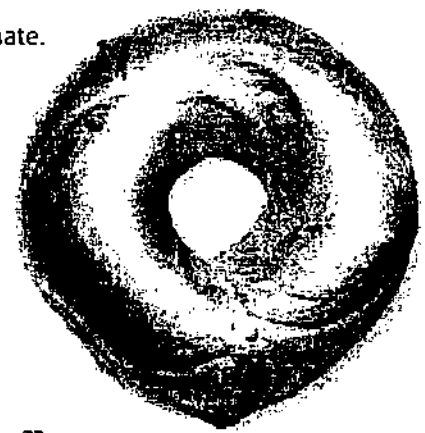


Sándwich de Ensalada de Atún • Rinde 2 porciones

4 rebanadas de pan
1 lata de atún enlatada en agua
4 cucharaditas de mayonesa baja en grasa
Cebolla y apio, partidos

Procedimiento:

- Mezcle el atún con la mayonesa baja en grasa, la cebolla y el apio.
- Pruébelo con queso y tomate.
- Sírvalo con leche baja en grasa.



Sándwich de Carne Baja en Grasa (Sloppy Joes) • Rinde de 4–6 porciones

1 libra de carne molida sin grasa de res, pavo o pollo
1 cebolla pequeña, partida
1/2 pimiento verde, partido
1 taza de salsa de tomate
Especias a su gusto
5 panes de hamburguesas, pita o tortillas

Procedimiento:

- En una cacerola, cocine la carne, cebolla y pimiento hasta que la carne se cocine.
- Escurra la grasa.
- Añádale la salsa de tomate y las especias.
- Cocine 5 a 10 minutos.
- Cucharee en pan de hamburguesa o pita.
- Sírvalo con jugo de fruta.

Pizza de Bagel Panecillos • Rinde de 1–2 porciones

1 panecillo, bagel o English Muffin
2 cucharadas de salsa de tomate
Ajo, orégano o albahaca al gusto

2 cucharadas de queso de papa o mozzarella bajo en grasa

Procedimiento:

- Caliente el horno a 400°.
- Parta por la mitad el panecillo, bagel, o English Muffin y colóquelo en una sartén.
- Añada la salsa de tomate, especias y queso.
- Hornee por 3 minutos o hasta que el queso se derrita.
- Sírvalo con jugo de fruta.

Macarrones con Queso al Horno • Rinde de 3–5 porciones

4 tazas de macarrones cocidos
3 tazas de queso de papa rayado
2 cucharadas de margarina
2 cucharadas de harina de trigo
2 tazas de leche baja en grasa
Aceite vegetal
Sal y pimienta

Procedimiento:

- Caliente el horno a 375°. Engrase ligeramente con aceite vegetal un molde.
- Combine los macarrones cocidos con el queso rayado y viértalo en el molde.
- Derrita la margarina en una cacerolita. Quítela del fuego, añada la harina. Póngala nuevamente en el fuego.
- Añada la leche poco a poco, revolviendo hasta suavizar. Añada sal y pimienta al gusto.
- Derrámelo sobre los macarrones. Mezcle bien y tápelo. Hornee por 30 minutos.
- Destápelos y hornee 15 minutos más.

Guiso de Pollo • Rinde de 6–8 porciones

1 pollo de tres libras, partido en presas
Aceite vegetal o achiote
1 cebolla mediana, picada
1 ramita de apio o cilantro
1 lata de 28 onzas de tomates guisados
2 cucharadas de sofrito
2 papas grandes, picadas

Procedimiento:

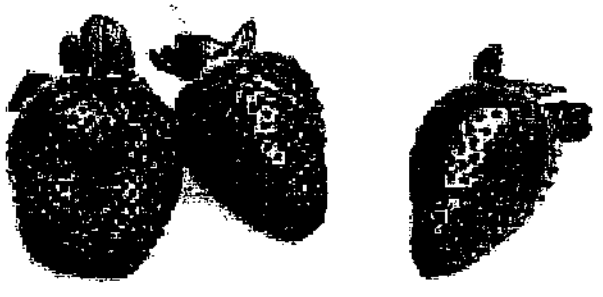
- Engrase levemente una olla con aceite vegetal o de achiote. Use fuego mediano.
- Añada el pollo, sofría y tápelo hasta que se cocine.
- Añada los tomates y papas picadas.
- Añada el apio, cebolla y sofrito.
- Tápelo y cocine a fuego lento por 30 minutos.
- Sírvalo con arroz o fideos.

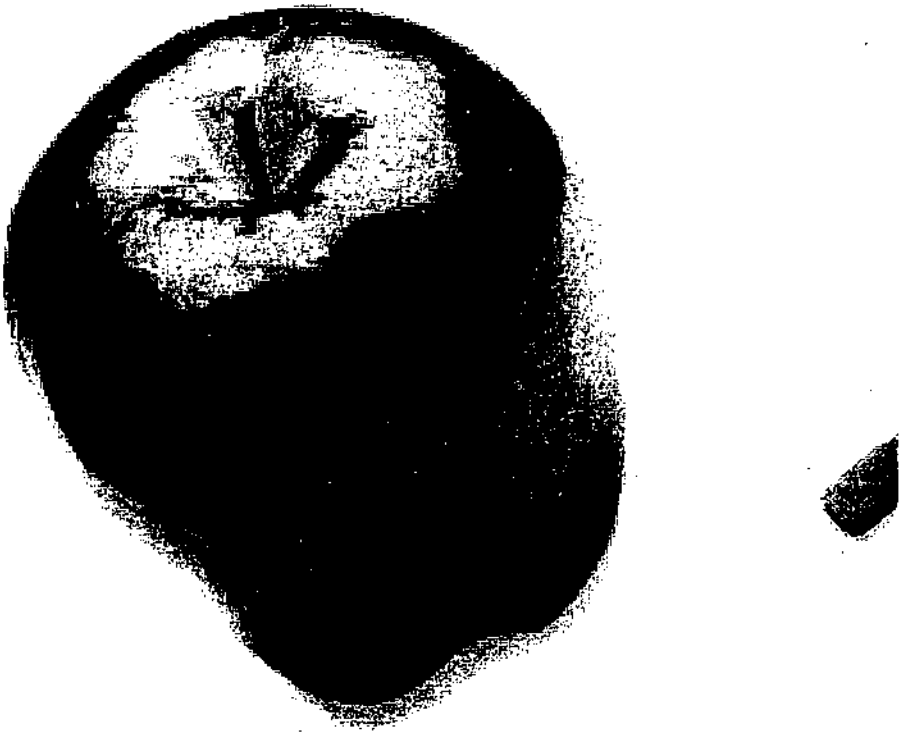
Batida de Banana y Fresa • Rinde de 2–3 porciones

1 taza de leche baja en grasa o yogur
1 taza de fresas frescas o congeladas, majadas
1 banana maduro

Procedimiento:

- Mezcle todos los ingredientes en una batidora o a mano con un batidor.
- Coma como merienda o postre.
- Trate con otras frutas si lo desea.

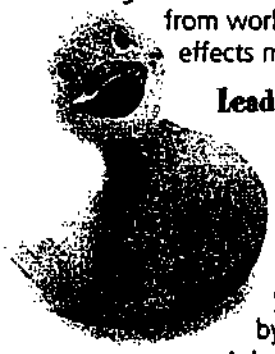




Lead and a Healthy Diet
What You Can Do to Protect Your Child

Lead's Effects on the Body

Lead is a poisonous metal that our bodies cannot use. Lead poisoning can cause learning, hearing, and behavioral problems, and can harm your child's brain, kidneys, and other organs. Lead in the body stops good minerals such as iron and calcium from working right. Some of these effects may be permanent.



Lead Awareness and Your Child

Children with lead poisoning usually do not look or act sick. The only way to know if your child has lead poisoning is by getting a blood test. Ask your doctor or health care provider to test your child under six years of age at least once a year.

Lead Hazards
Where is Lead Found?

Main Sources of Lead

Lead-based paint is a hazard if it is peeling, chipping, chalking, or cracking. Even lead-based paint that appears to be undisturbed can be a problem if it is on surfaces that children chew or that get a lot of wear and tear. The older your home is, the more likely it is to contain lead-based paint.

Contaminated dust forms when lead paint is dry-scraped or sanded. Dust can also become contaminated when painted surfaces bump or rub together. Lead chips and dust can gather on surfaces and objects that people touch or that children put into their mouths.

Lead poisoning occurs **without** any **obvious symptoms** and **harms** your child's body.

Contaminated soil occurs when exterior lead-based paint from houses, buildings, or other structures flakes or peels and gets into the soil. Soil near roadways may also be contaminated from past use of leaded gasoline in cars. Avoid these areas when planting vegetable gardens.

Other Sources of Lead

Contaminated drinking water from older plumbing fixtures

Lead-based painted toys and household furniture

Imported lead-glazed pottery and leaded crystal

Lead smelters

Hobbies

Folk remedies like azarcon and pay-loo-ah

Cosmetics like kohl and kajal

Do not store **food** in glazed pottery **from foreign countries.**

Simple Steps You Can Take to Protect Your Family from Lead Hazards

If you think your home has high levels of lead:

- Make sure your children eat healthy, low-fat foods high in iron, calcium, and vitamin C.
- Get your children tested for lead, even if they seem healthy.
- Get your home tested for lead if it was built before 1978. Call **1-800-424-LEAD** for more information.
- Always wash your hands before eating.
- Wash children's hands, bottles, pacifiers, and toys.
- Do not use imported pottery to store or serve food.
- Let tap water run for one minute before using.
- Use only cold water for making your baby's formula, drinking, and cooking.
- Regularly clean floors, windowsills, and other surfaces using wet methods that control dust.
- Wipe or remove shoes before entering your house.
- If you rent, it is your landlord's job to keep paint in good shape. Report peeling or chipping paint to your landlord and call your health department if the paint is not repaired safely.
- Take precautions to avoid exposure to lead dust when remodeling or renovating.
- Don't try to remove paint yourself!

Lead poisoning is completely **preventable.**

For more information on childhood lead poisoning prevention:

Call

- Your child's pediatrician
- The National Lead Information Center **1-800-424-LEAD (424-5323)**
- U.S. Environmental Protection Agency's (EPA) Safe Drinking Water Hotline **1-800-426-4791**

Visit

- EPA Lead Program Web site **www.epa.gov/lead**
- U.S. Centers for Disease Control and Prevention (CDC) Web site **www.cdc.gov/nceh/lead**
- U.S. Department of Housing and Urban Development (HUD) Web site **www.hud.gov/offices/lead**

LEAD Awareness Program

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Regularly Eat Healthy Foods

Children with empty stomachs absorb more lead than children with full stomachs. Provide your child with four to six small meals during the day. The following nutrients can help protect your child from lead poisoning:

Iron-Rich Foods
Normal levels of iron work to protect the body from the harmful effects of lead. Good sources of dietary iron include:

Lean red meats, fish, and chicken
Iron-fortified cereals
Dried fruits (raisins, prunes)

Calcium-Rich Foods
Calcium reduces lead absorption and also helps make teeth and bones strong. Good sources of dietary calcium include:

Milk
Yogurt
Cheese
Green leafy vegetables (spinach, kale, collard greens)

Vitamin C-Rich Foods
Vitamin C and iron-rich foods work together to reduce lead absorption. Good sources of vitamin C include:

Oranges, orange juice
Grapefruits, grapefruit juice
Tomatoes, tomato juice
Green peppers

A healthy diet can help **protect** your child **from the harmful effects of lead.**

Meal and Snack Ideas

Tips to help you and your children plan meals and snacks

Breakfast	Lunch	Dinner
Oatmeal swirlers Sliced banana Orange juice	Grilled cheese & tomato Coleslaw Low-fat milk	Sloppy joes Watermelon Low-fat milk
-or-	-or-	-or-
Cheese omelet Applesauce Low-fat milk	Tuna salad sandwich Cranberry juice Pear slices	Macaroni and cheese Stewed tomatoes Melon slice
-or-	-or-	-or-
French toast Orange sections Low-fat milk	Pizza bagel 100% fruit juice Fresh or canned peaches Low-fat milk	Chicken stew Rice Strawberries

Between meals offer small snacks such as:

Cereal with low-fat milk, whole wheat crackers with cheese, apple or pear slices, oranges or bananas, raisins, yogurt, frozen fruit juice pops, and fruit smoothies.

Many of the foods listed in this brochure can be bought with food vouchers from the WIC program. To find out more about WIC, call your child's pediatrician or visit www.fns.usda.gov/wic

Oatmeal Swirlers • Makes 4–6 servings

1 1/2 cups of quick cooking oats
1/3 cup of peanut butter
1/3 cup of fruit jelly or jam

Steps:

- Follow the package directions to cook oats.
- Spoon peanut butter and jelly on top of cooked oatmeal.
- Stir and spoon into bowls.
- Serve with low-fat milk.

French Toast • Makes 4–6 servings

3 eggs, beaten
1/2 cup of low-fat milk
Vegetable oil
6 slices of bread
Cinnamon
2 bananas, sliced

Steps:

- Mix eggs and milk.
- Lightly coat pan with vegetable oil. Use medium heat.
- Dip bread into egg mixture, so that bread is covered.
- Brown one side of bread in pan.
- Sprinkle top with cinnamon.
- Turn over bread and brown the other side. Top with sliced banana.
- Serve with low-fat milk.

Cheese Omelet • Makes 2–3 servings

3 eggs
1 tablespoon of low-fat milk
Vegetable oil
3 tablespoons of cheese

Steps:

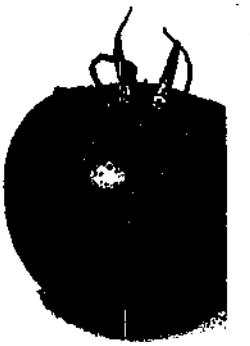
- Mix eggs and milk in a bowl.
- Lightly coat pan with vegetable oil. Use medium heat.
- Add egg mixture and cook.
- When omelet is cooked on the bottom, add cheese.
- When cheese is melted, fold omelet in half.
- Top with salsa if you like.
- Serve with toast, fruit, and low-fat milk.

Grilled Cheese & Tomato Sandwich • Makes 1 serving

2 slices of bread
2 slices of American cheese
1 slice of tomato
Vegetable oil

Steps:

- Make sandwich using bread, cheese, and tomato.
- Lightly coat pan with vegetable oil.
- Brown sandwich on both sides over low heat to melt the cheese.
- Serve with low-fat milk or fruit juice.



Tuna Salad Sandwich • Makes 2 servings

4 slices of bread
1 can of water packed tuna
4 teaspoons of low-fat mayonnaise
Onion and celery, chopped

Steps:

- Mix tuna with low-fat mayonnaise, onion, and celery.
- Try your sandwich with cheese and tomato.
- Serve with low-fat milk.

Pizza Bagels • Makes 2–3 servings

1 bagel
2 tablespoons of tomato sauce
Garlic, basil, or oregano
2 tablespoons of cheddar cheese or part-skim mozzarella

Steps:

- Preheat oven to 400 degrees.
- Slice open a bagel and place on a flat pan.
- Add tomato sauce, seasonings, and cheese.
- Bake for 3 minutes or until cheese melts.
- Serve with fruit juice.

Sloppy Joes • Makes 4–6 servings

1 pound of lean ground beef, turkey, or chicken
1 small onion, chopped
1/2 green pepper, chopped
1 cup of tomato sauce
Your choice of seasonings
5 hamburger buns or pita pocket breads

Steps:

- In a pan, cook lean ground meat, onion, and green pepper until meat is well done.
- Drain fat.
- Stir in tomato sauce and seasonings.
- Cook for 5 to 10 minutes.
- Spoon into hamburger bun or pita.
- Serve with fruit juice.

Baked Macaroni and Cheese • Makes 3–5 servings

4 cups of cooked macaroni
3 cups of grated cheddar cheese
2 tablespoons of margarine
2 tablespoons of flour
Vegetable oil
2 cups of low-fat milk
Salt and pepper

Steps:

- Preheat oven to 375 degrees. Lightly coat casserole dish with vegetable oil.
- Mix cooked macaroni with grated cheese and pour into casserole.
- Melt margarine in a pan. Remove from heat, stir in flour. Return to heat.
- Add low-fat milk slowly, stirring until smooth.
- Season with salt and pepper to taste.
- Pour over macaroni. Stir.
- Cover. Bake for 30 minutes.
- Uncover and bake for another 15 minutes.

Chicken Stew • Makes 6–8 servings

3 pounds of frying chicken, cut up into small pieces
Vegetable oil
1 medium onion, chopped
1 stalk of celery, chopped
28 ounce can of stewed tomatoes
Poultry seasoning

Steps:

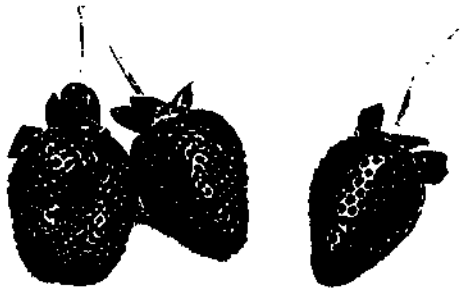
- Lightly coat pot with vegetable oil. Use medium heat.
- Cook chicken until it is well done.
- Add can of stewed tomatoes.
- Add vegetables and seasoning.
- Cover and cook over low heat for 30 minutes.
- Serve with rice or noodles.

Banana Strawberry Smoothie • Makes 2–3 servings

1 cup of low-fat milk
1 cup of fresh or frozen strawberries, mashed
1 ripe banana, mashed

Steps:

- Mix all together in a blender or use a wire whisk.
- Eat as a snack or for dessert.



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Contacto:

Childhood Lead Poisoning
Prevention Program
(Programa de Prevención del
Envenenamiento Infantil con Plomo)

1-800-532-9571

www.state.ma.us/dph/clppp

o su programa local de prevención
del envenenamiento con plomo:

El envenenamiento con plomo

la nutrición y los niños

lo que usted debe saber

LA NUTRICION Y EL ENVENENAMIENTO CON PLOMO

La nutrición es solamente una manera temporaria de proteger a los niños pequeños del envenenamiento con plomo. La mejor manera de prevenir el envenenamiento con plomo es solicitar una inspección de la vivienda en la que vive el niño y hacer remover el plomo de la misma.

ALIMENTOS PARA SUS NIÑOS

Para ayudar a prevenir el envenenamiento con plomo, alimente a sus niños con comidas ricas en calcio y hierro, y de bajo contenido graso.

EL ENVENENAMIENTO CON PLOMO

El envenenamiento con plomo es una enfermedad que puede hacerle daño al cerebro, los riñones y el sistema nervioso de los niños pequeños. Aún niveles bajos de plomo en el cuerpo de un niño pueden causar problemas de aprendizaje y de comportamiento. Los niveles muy elevados pueden causar retardación, convulsiones y coma.

¿CÓMO SE ENVENENAN CON PLOMO LOS NIÑOS?

La manera más común en que los niños se envenenan es a través del polvo y la pintura con plomo de las viviendas antiguas. El polvo con plomo puede formarse al hacerse arreglos a superficies pintadas con pintura con plomo, al abrir y cerrar ventanas pintadas, y a través del desgaste normal del hogar. El polvo con plomo cae al suelo y contamina las manos y los juguetes de los niños. El plomo entra a sus cuerpos cuando se llevan las manos o los juguetes a la boca.

PROTEJA SU HOGAR DE LOS PELIGROS DE ENVENENAMIENTO CON PLOMO

De acuerdo a Ley del Plomo de Massachusetts, en las viviendas construidas antes del año 1978 en las que vivan niños menores de seis años, el plomo debe ser removido, cubierto, o puesto bajo control interino. Haga examinar su casa por un inspector de plomo licenciado para ver si hay plomo. Haga corregir los peligros de envenenamiento con plomo por trabajadores debidamente entrenados y licenciados.

Dé a sus niños picadas saludables como:

- vegetales y frutas frescos
- galletitas de grano integral
- rodajas de queso
- yogur

Alimente a sus niños con:

- cuatro a seis comidas livianas durante el día (se absorbe menos plomo con el estómago lleno)
- alimentos ricos en hierro, calcio y vitamina C
- alimentos de bajo contenido graso

Evite que sus niños anden con comida por la casa (ya que la pueden dejar temporariamente en áreas que contienen plomo).

Deje correr el agua de beber hasta que esté fría.

Use agua fría para cocinar y preparar fórmula para bebés.

No añada manteca o aceite al cocinar.

Cocine la comida asándola, hirviéndola o al horno en vez de freírla.

Compre carnes desgrasadas y quíteles la grasa.

Evite las comidas fritas, papitas fritas ("chips"), los "donuts" y las comidas de pastelería.

Recuerde, *si en su hogar hay plomo, la única manera de reducir permanentemente el riesgo de envenenamiento con plomo es hacer que se elimine el plomo de su vivienda.*

Hierro

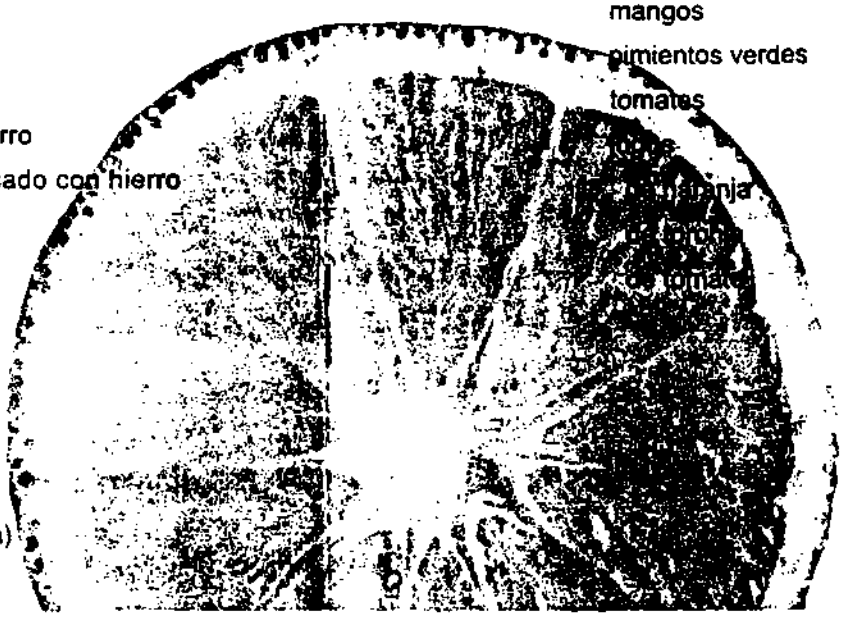
Los alimentos con alto contenido de hierro evitan que el plomo sea absorbido por el cuerpo.

- carnes desgrasadas
- bife
- pollo
- cerdo
- cabra
- pescado
- sardinas
- atún
- cereales
- crema de trigo
- cereal fortificado con hierro
- cereal para bebés fortificado con hierro
- habichuelas
- judías (frijoles)
- habichuelas negras
- mantequilla de maní
- frutas resecadas
- pasas de uva
- dátiles
- prunas (pasas de ciruela)

Vitamina C

El hierro surte mejor efecto cuando se lo come con alimentos ricos en vitamina C.

- naranjas
- toronjas
- mangos
- pimientos verdes
- tomates
- [illegible]
- [illegible]
- [illegible]
- [illegible]



Consejos

Lleve a su niño a que le hagan la prueba para ver si tiene plomo.

Lave las manos de su niño a menudo (siempre antes de comer y dormir).

Lave los juguetes de su niño con frecuencia.

Hasta que se haya removido el plomo de su casa. cubra la pintura que se está pelando y descascarando con cinta adhesiva ("duct tape") o papel adhesivo ("contact paper").

Lave las áreas polvorientas con cualquier agente de limpieza para el hogar. Coloque el agente de limpieza en una botella plástica rociadora y use toallas de papel para fregar. Frote vigorosamente al limpiar para mejores resultados.

Calcio

Los alimentos con alto contenido de calcio ayudan a evi[illegible] que el plomo sea abso[illegible]do por el cuerpo. El calcio [illegible]ontribuye al fortalecimiento de dientes y huesos.

leche

yogur

tofú

queso

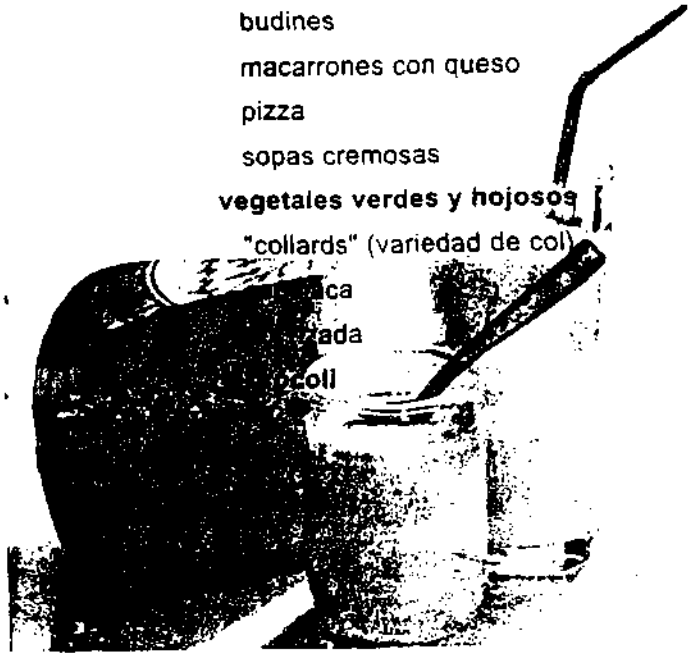
- tipo cheddar
- americano.
- ricota
- tipo cottage

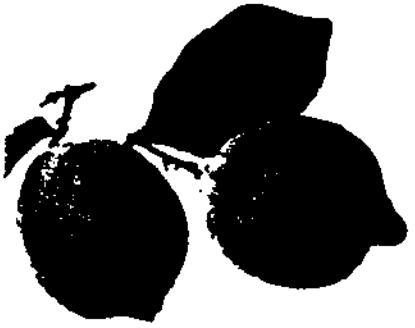
alimentos hechos con leche

- budines
- macarrones con queso
- pizza
- sopas cremosas

vegetales verdes y hojosos

- "collards" (variedad de col)
- [illegible]ca
- [illegible]ada
- [illegible]coli





Contact:

Massachusetts Department of Public Health
Childhood Lead Poisoning Prevention Program
1.800.532.9571
www.state.ma.us/dph/clppp

or your local lead program:

Lead Poisoning Nutrition *AND* Children

NUTRITION AND LEAD POISONING

Nutrition is only a temporary way of protecting young children from lead poisoning. The best way to prevent lead poisoning is to have the child's home inspected and deleaded.

FOODS FOR YOUR CHILDREN

Give your children foods high in calcium and iron and low in fat to help prevent lead poisoning.

LEAD POISONING

Lead poisoning is a disease that can damage the brain, kidneys, and nervous systems of young children. Even low levels of lead in a child's body can cause learning and behavioral problems. Very high levels can cause retardation, convulsions, and coma.

HOW CHILDREN BECOME LEAD POISONED

Children are most often poisoned by lead dust and lead paint in older homes. Lead dust can come from repairing painted areas, opening and closing painted windows, and through normal wear and tear on the home. Lead dust settles to the floor and gets on children's hands and toys. It gets into their bodies when they put their hands and toys in their mouths.

MAKE YOUR HOME LEAD SAFE

The Massachusetts Lead Law requires the removal or covering, or interim control, of lead hazards in homes built before 1978 where a child under the age of six lives. Have your home tested for lead by a licensed lead paint inspector. Have lead hazards corrected using properly trained and licensed people.

Feed children healthy snacks like:

- *fresh fruits and vegetables*
- *whole grain crackers*
- *cheese slices*
- *yogurt*

Feed your children:

- *four to six small meals during the day (they absorb less lead on a full stomach)*
- *foods high in iron, calcium and vitamin C*
- *foods low in fat*

Keep children from walking around with food (it could be put down in areas with lead dust).

Run drinking water until it is cold.

Use cold water for cooking and making baby formula.

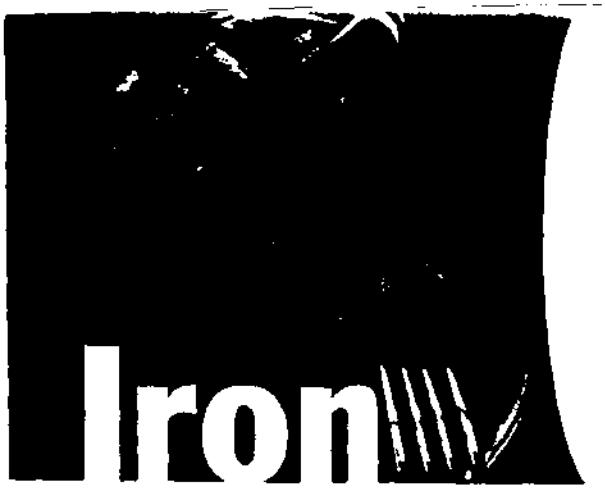
Don't add butter or oil when cooking.

Bake, broil, or boil foods instead of frying.

Buy lean meats and trim off the fat.

Avoid potato chips, french fries, pastries, and donuts.

Remember, the only way to permanently lower the risk of your child getting lead poisoned is to have your home deleaded if it contains lead paint.



Iron

Foods high in iron help keep lead from being absorbed by the body.

lean meats
beef
chicken
pork
goat
fish
sardines
tuna
cereals
Cream of Wheat
cereal with added iron
infant cereal with added iron
beans
kidney
black
peanut butter
dried fruits
raisins
dates
prunes

Vitamin C

Iron works better when it is eaten with foods high in vitamin C.

oranges
grapefruit
mangos
green peppers
tomatoes
juices
orange
grapefruit
tomato

Tips

Have your children tested for lead.

Wash your children's hands often (always before eating and sleeping).

Wash your children s toys often.

Use contact paper or tape to cover loose paint until the home is deleaded.

Wash dusty areas with any household cleaner. Use a spray bottle for the cleaner and paper towels to scrub the area. (The harder you scrub, the better.)

Calcium

Foods high in calcium help keep lead from being absorbed by the body. Calcium helps make teeth and bones strong.

milk

yogurt

tofu

cheese

cheddar

American

ricotta

foods made with milk

pudding

macaroni & cheese

pizza

cream soup

green leafy vegetables

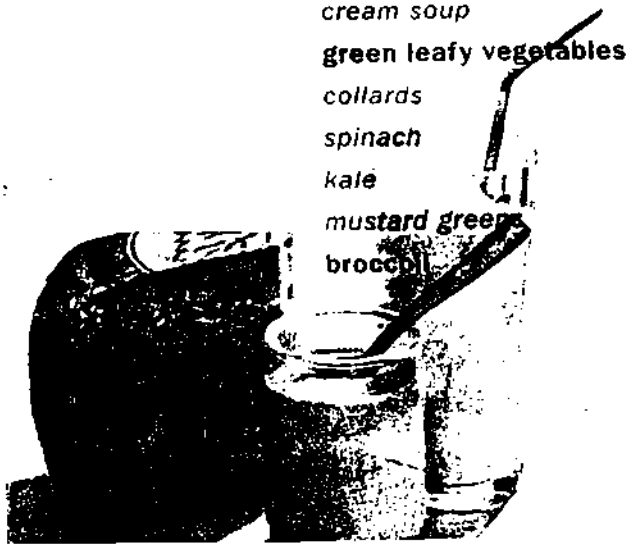
collards

spinach

kale

mustard greens

broccoli



Iron

Iron is a mineral that primarily serves as a carrier of oxygen in the blood. Young children, adolescents, and women have the greatest need for iron. The body absorbs more iron when the iron is eaten with Vitamin C. It is best to eat a variety of iron-rich foods, including both meats and plants.

Some good **sources of iron**:

Dark meats, liver, shellfish

- **Meats** – beef, pork, and lamb and especially liver and other organ meats
- **Poultry** – eggs, chicken, duck, and turkey, especially liver and dark meat
- **Fish** – shellfish, like clams, mussels, and oysters; sardines; anchovies; and other fish

Some foods in this category are high in fat and cholesterol. Most often, choose lean meats.

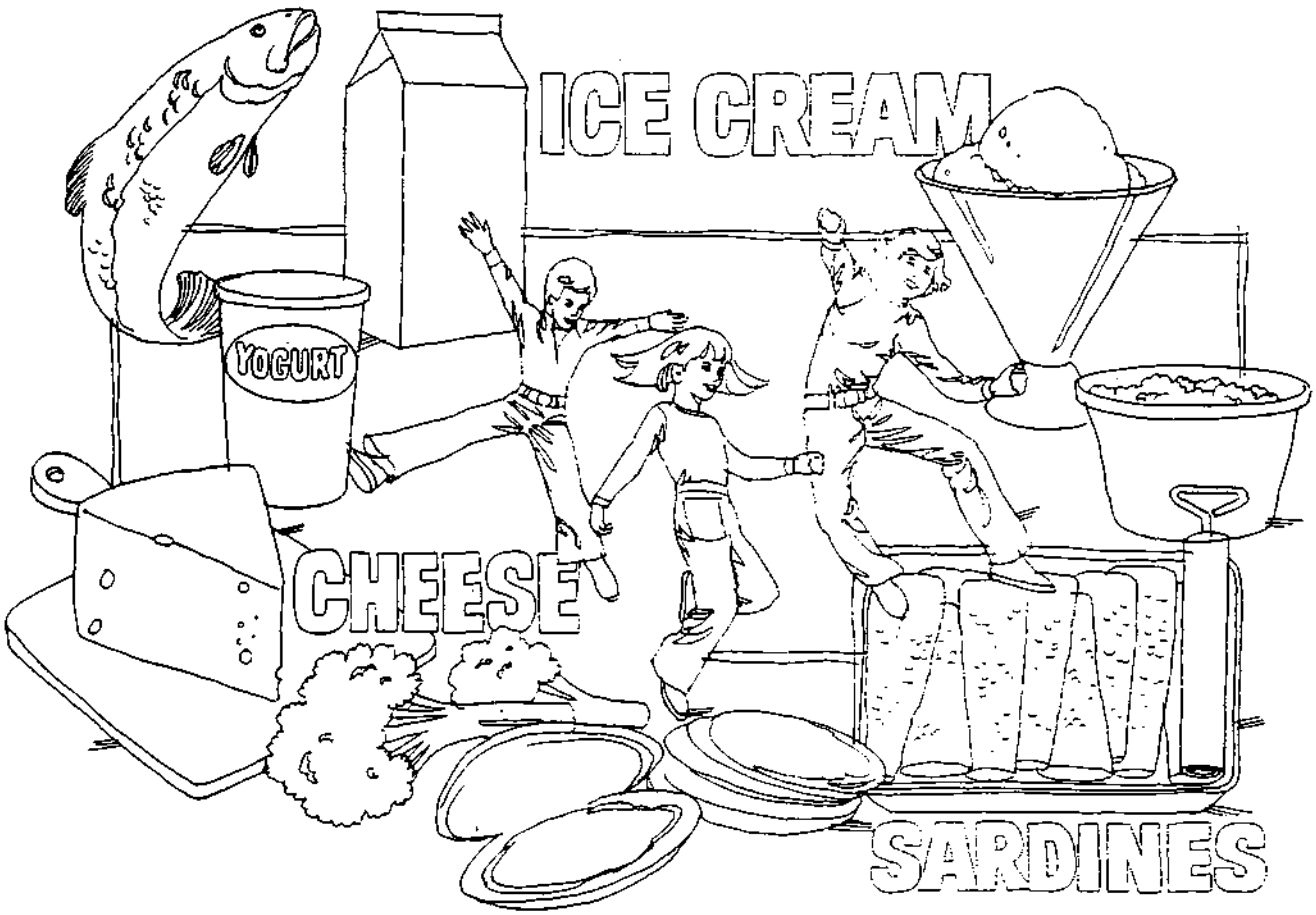
Dark green leafy vegetables, dried beans and fruits

- **Vegetables** – Dark leafy green vegetables like broccoli, kale, turnip greens, collards, and spinach
- **Beans/ peas/ nuts** – almonds, lima beans, green peas; dried beans and peas, such as pinto beans, black-eyed peas, kidney beans, lentils, and canned baked beans
- **Dried fruits** – dates, raisins, prunes, dried apricots

Iron-enriched breads and cereals

- **Breads** – Yeast-leavened whole wheat bread, enriched white bread and rolls
- **Cereals** – rice, iron-enriched pasta and cereals

You can obtain additional information from "Good Sources of Nutrients," USDA, January 1990 or by visiting USDA's nutrition website at http://www.nalusda.gov/fnic/



Calcium is good for your bones and teeth!

Calcium is one of the minerals that forms healthy bones and teeth. A smaller amount is needed for proper muscle and nerve function, as well as normal blood clotting. It is important to include good food sources of calcium in your diet every day.

Protein and Vitamin D are also needed in the diet to allow the body to use calcium.

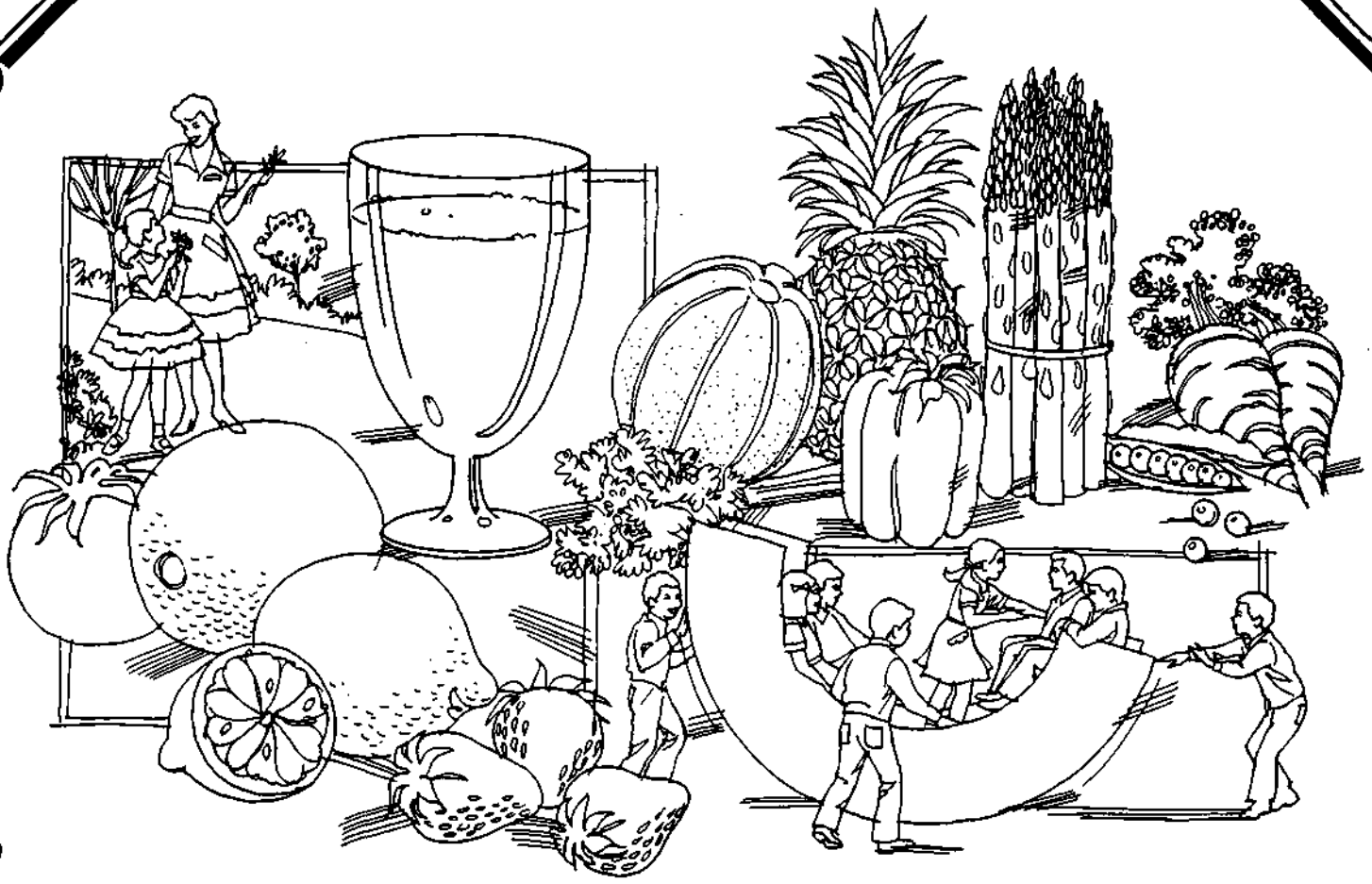
Important food sources of calcium:

broccoli
***cheese**
clams
***collards, cooked**
cottage cheese
farina
ice milk
***milk (whole, 2%, skim)**
***molasses (blackstrap)**
oysters
***salmon**
***sardines**
self-rising flour
soybeans, cooked
***turnip greens, cooked**
***yogurt**

***Indicates a very good source**

LITHO U S A A38548

General Mills



Vitamin C: have some every day!

Vitamin C has several important functions in the body, such as helping to form bones and teeth and healthy skin and tissue. Vitamin C also plays a significant role in wound healing and maintaining strong blood vessels.

Since our bodies do not make Vitamin C, we must eat foods which provide us with it. It's a good idea to eat foods with Vitamin C every day.

Important food sources of Vitamin C:

asparagus
avocado
***broccoli**
***brussels sprouts**
***cabbage, raw**
***cantaloupe**
***cauliflower**
***grapefruit or grapefruit juice**
***green pepper**
***greens (collards, kale, beet, mustard, turnip)**
lemon or lemon juice
lima beans
mangos
***orange or orange juice**
***papaya**
peas
***pineapple**
***potatoes**
***raspberries**
***spinach**
squash
***strawberries**
***tomato or tomato juice**
turnips
***vitamin C fortified cereal**

***Indicates a very good source**

General Mills

LITHO U.S.A. A38546

LETTER TO PARENTS AND GUARDIANS

This activities book was designed to teach your children how they can keep safe from lead. It provides many ways for them to avoid lead poisoning, but your help is crucial in keeping them lead-free!

Young children—particularly under six years old—are most at risk for lead poisoning because their bodies absorb lead more easily, and their developing nervous systems are more vulnerable to lead's effects. Lead exposure can even harm babies before they are born.

Sources of lead

The biggest cause of lead poisoning is lead paint. About three-quarters of houses and apartments built before 1978 contain lead paint. Chipping and peeling paint, and dust from the paint, can be anywhere in your home. Other places lead can be are:

- In soil from lead paint, lead-based insecticides, and past use of leaded gasoline.
- In water from lead pipes, brass or bronze fixtures, or lead solder.
- In food from being stored, baked or served in poorly glazed pottery, lead crystal, or antique copper; grown near sources of lead; or prepared by someone with lead dust on his or her hands.

What you can do

1. Get your child tested, even if he or she seems healthy. Most children with lead poisoning do not show any signs. Some may have flu-like symptoms or stomachache, cramps, headache, irritability, fatigue, frequent vomiting, and poor appetite. A simple blood test can detect high levels of lead. Consult your doctor.

2. Have your paint, water, and soil tested. Lead paint can be a hazard even if the original paint has been covered. Call your local health authorities for advice. Don't try to remove lead paint yourself. Hire professional contractors to test all surfaces and determine the risk for each.

3. Keep your home clean. Wash floors and windowsills weekly with warm water and an all-purpose cleaner, or a lead-specific cleaner available at hardware stores. Wash toys, bottles, cribs, and pacifiers often. Clean or remove shoes before entering your home to avoid tracking in lead from soil.

4. Keep food safe. Do not store food in lead crystal, open cans, old copper cookware, pottery, or ceramic dishes. If you suspect lead in your water, use only cold water for drinking and cooking and let the tap run for at least 30 seconds. Plant your garden away from roads and painted buildings.

5. Don't bring lead home. If you work with lead, be sure to shower and change before you come home. Wash your clothes separately from your family's clothes.

Keep your family safe from lead!

Call the National Lead Information Center at 1-800-424-LEAD for more information.

KCB-295

LET'S LEARN ABOUT

LEAD POISONING

An Educational Activities Book

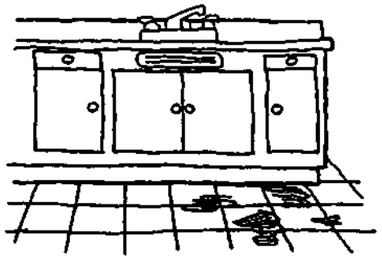
PUTTING KIDS FIRST
Colorado Dept. Public Health & Environment
Lead Poisoning Prevention Program
303-692-2700
800-886-7689 Ask For Lead Program

Remember, STAY HEALTHY, STAY CLEAN, STAY LEAD-FREE!

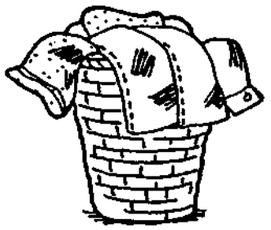
ACTIVITY Draw a line from the pictures on the left to the way to keep them clean on the right.

A.

B.



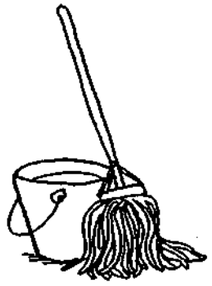
C.



1.

2.

3.



ANSWERS:

Page 2: LEAD CAN MAKE YOU SICK

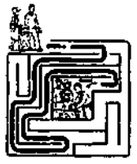
Page 3:

Page 7: 1-D, 2-F, 3-E, 4-C, 5-A, 6-B

Pages 8-9:

Page 10-11: 1-A, 2-B, 3-A, 4-A

Page 13:

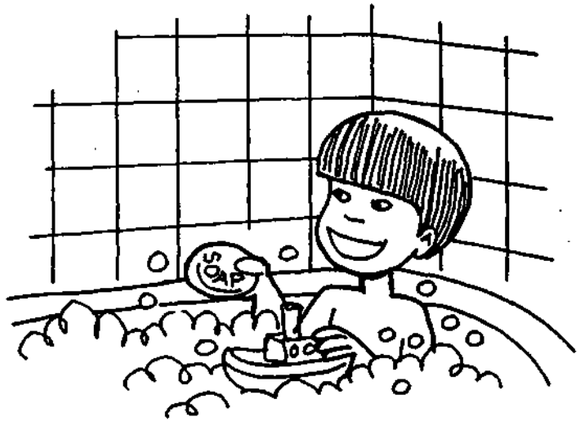


Page 16: A-2, B-3, C-1

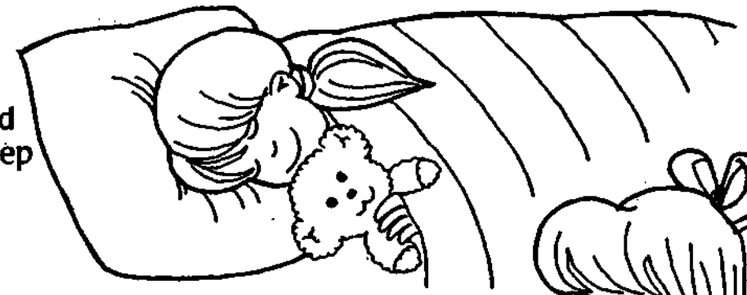
NOTE TO ADULTS Consult your physician regarding lead screenings for your child today!

There are many things you can do to stay healthy.

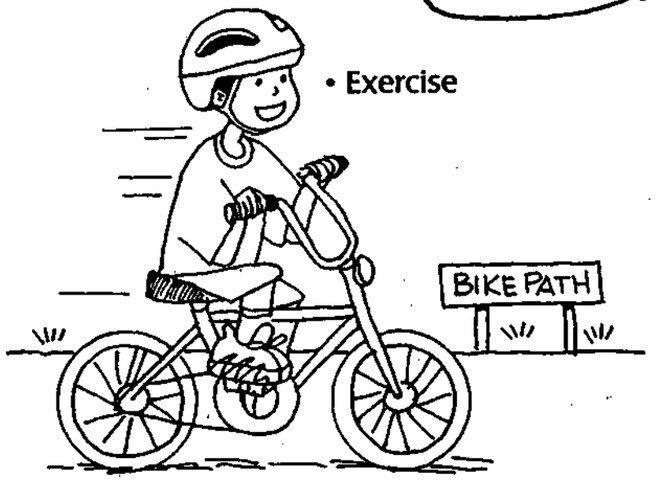
• Eat good foods



• Take a bath or shower every day



• Get a good night's sleep



• Exercise

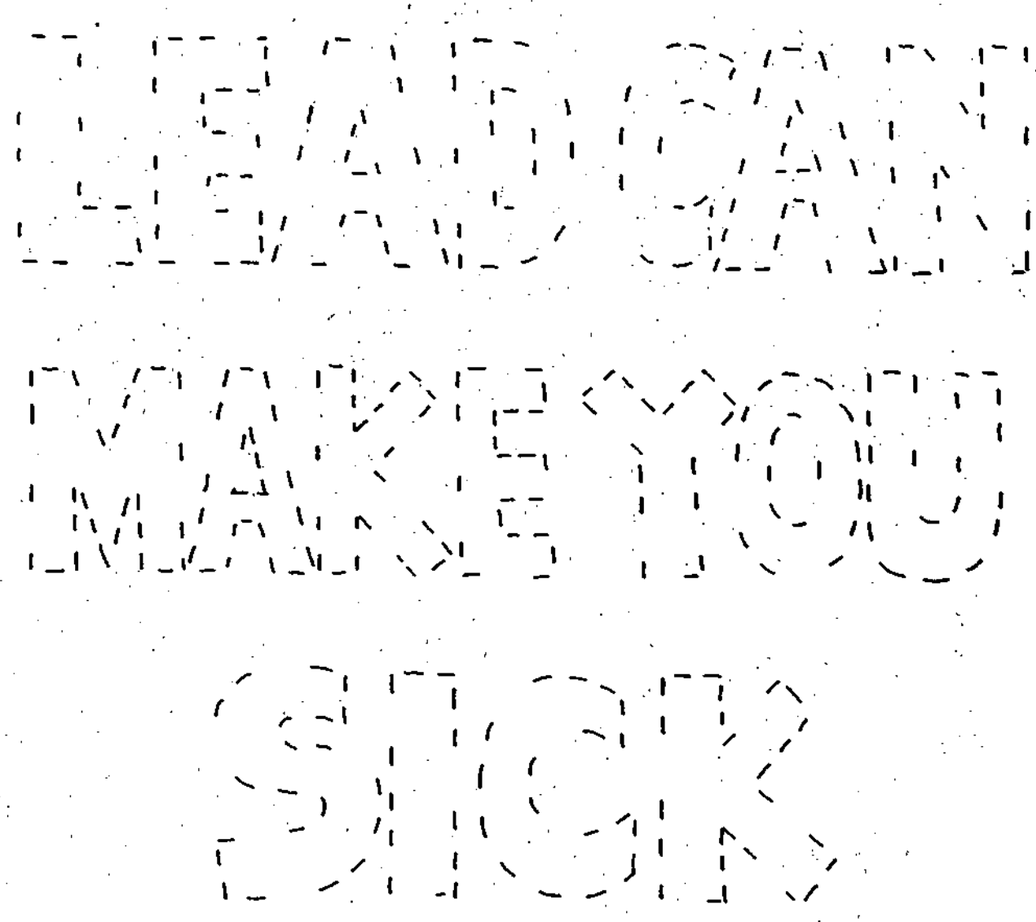
• Wash your hands often

Written by Julie Theisz
© 2000 The Positive Line #79930

Illustrated by Don Berry
Item #KCB-295

Some things are not good for you. Lead is one of them. If you get too much lead in your body, you could get lead poisoning. In this book you will learn ways to stay safe from lead.

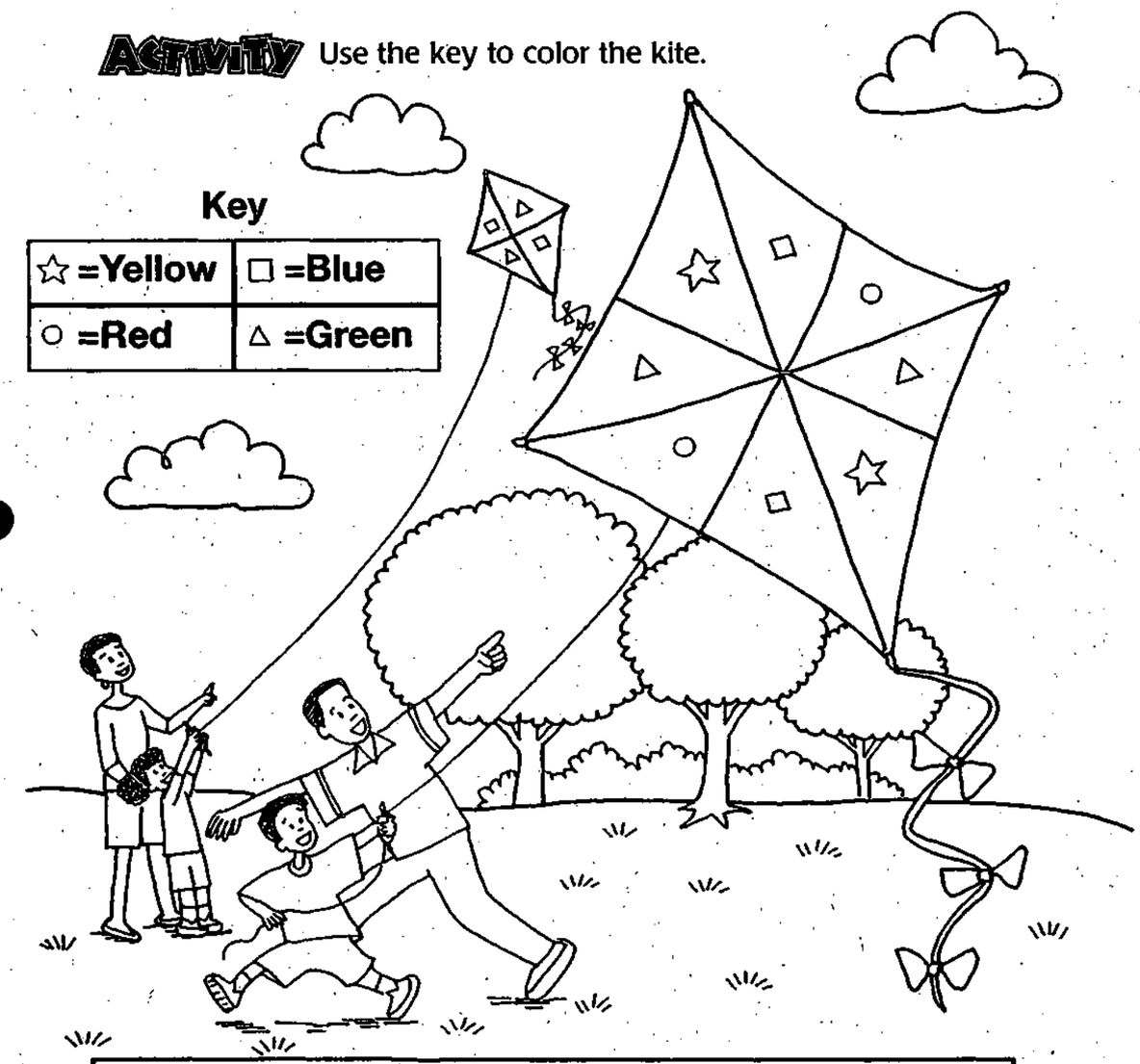
ACTIVITY Trace and color the letters below to find out why lead is bad.



NOTE TO ADULTS People get lead in their bodies by breathing or swallowing dust, soil, paint chips, food, or water containing lead. Exposure to lead, even in small amounts, can be harmful, especially for young children. The younger the child, the greater the risk.

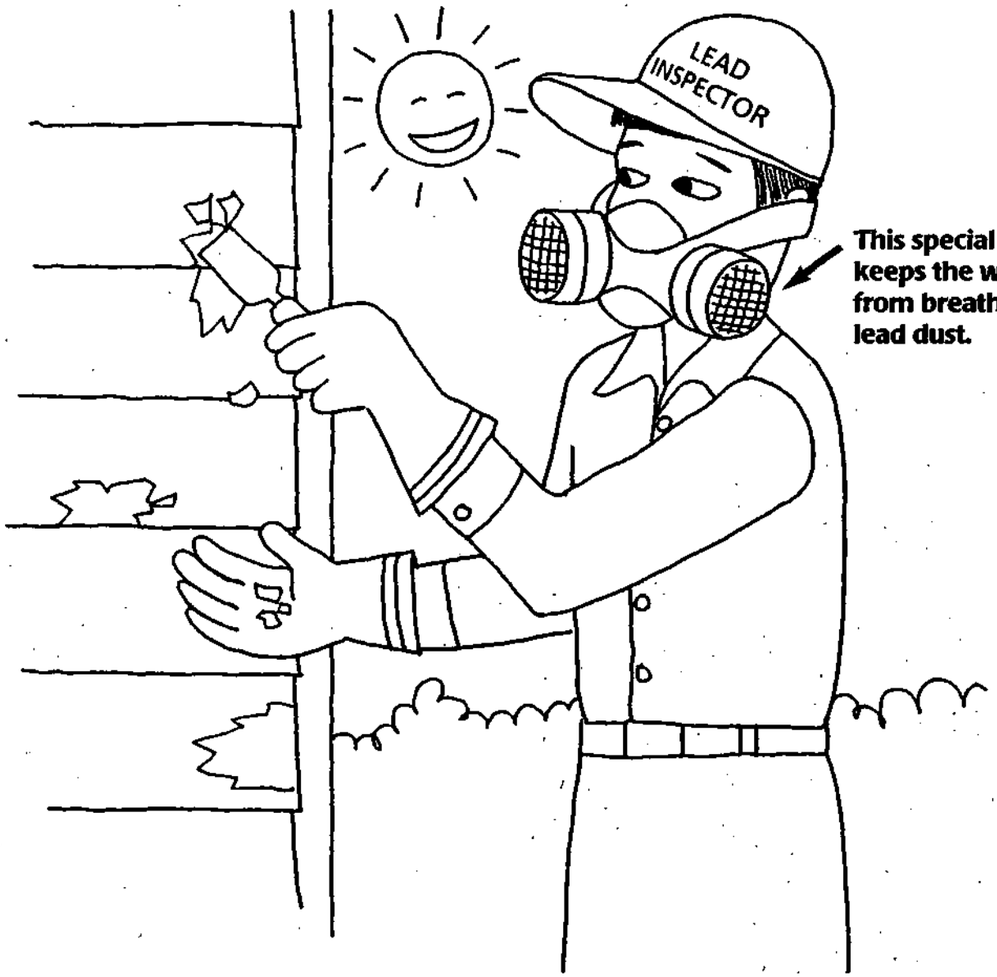
Years ago, more people got sick from lead. Adults have changed lots of things so kids don't get as much lead in their bodies. Everybody wants kids to be healthy!

ACTIVITY Use the key to color the kite.



NOTE TO ADULTS Lead paint was banned in 1978, and the Environmental Protection Agency prohibited the use of lead as a gasoline additive. Lead levels in foods have decreased because most manufacturers have stopped using lead solder in cans.

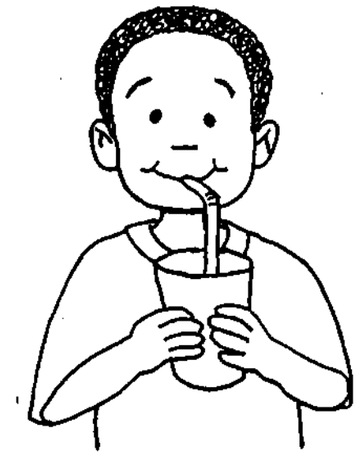
Your parents may have special workers come to your home, too. These workers can find where the lead is, and help get rid of it.



This special mask keeps the worker from breathing lead dust.

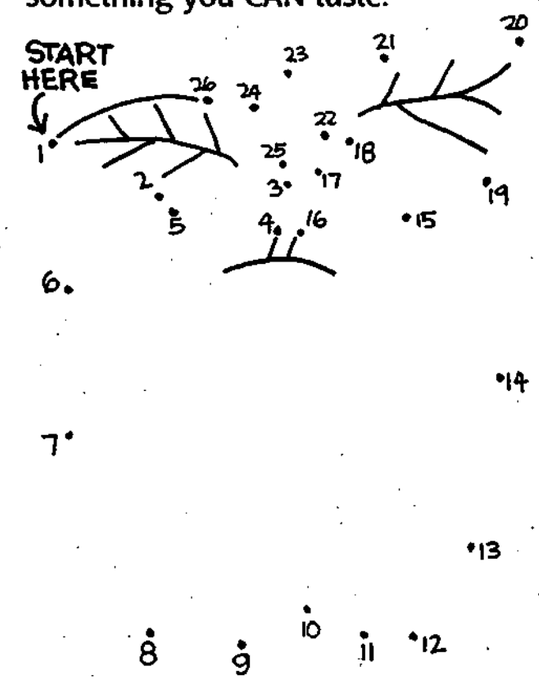
Have your home tested for lead paint. If it's a hazard, call a certified lead abatement contractor to safely reduce lead-paint hazards. NEVER try to remove lead paint yourself! You could spread even more lead dust around your home. Painting over lead paint does not solve the problem, either. Call 1-800-424-LEAD for a list of contacts in your area.

You cannot see, taste, or smell lead.

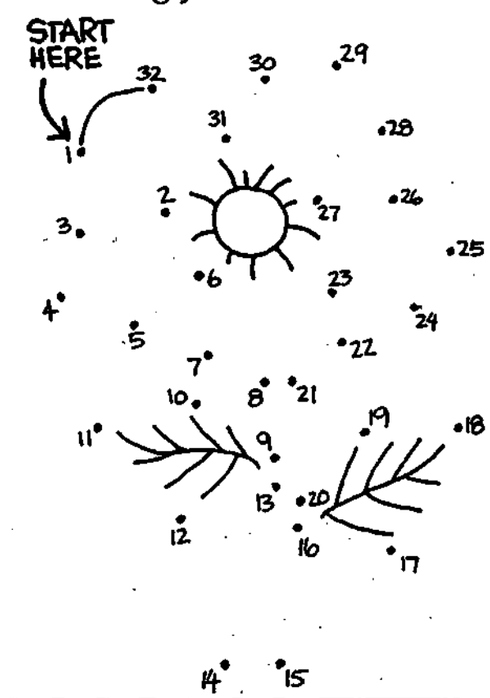


ACTIVITY

Connect the dots to find something you CAN taste.

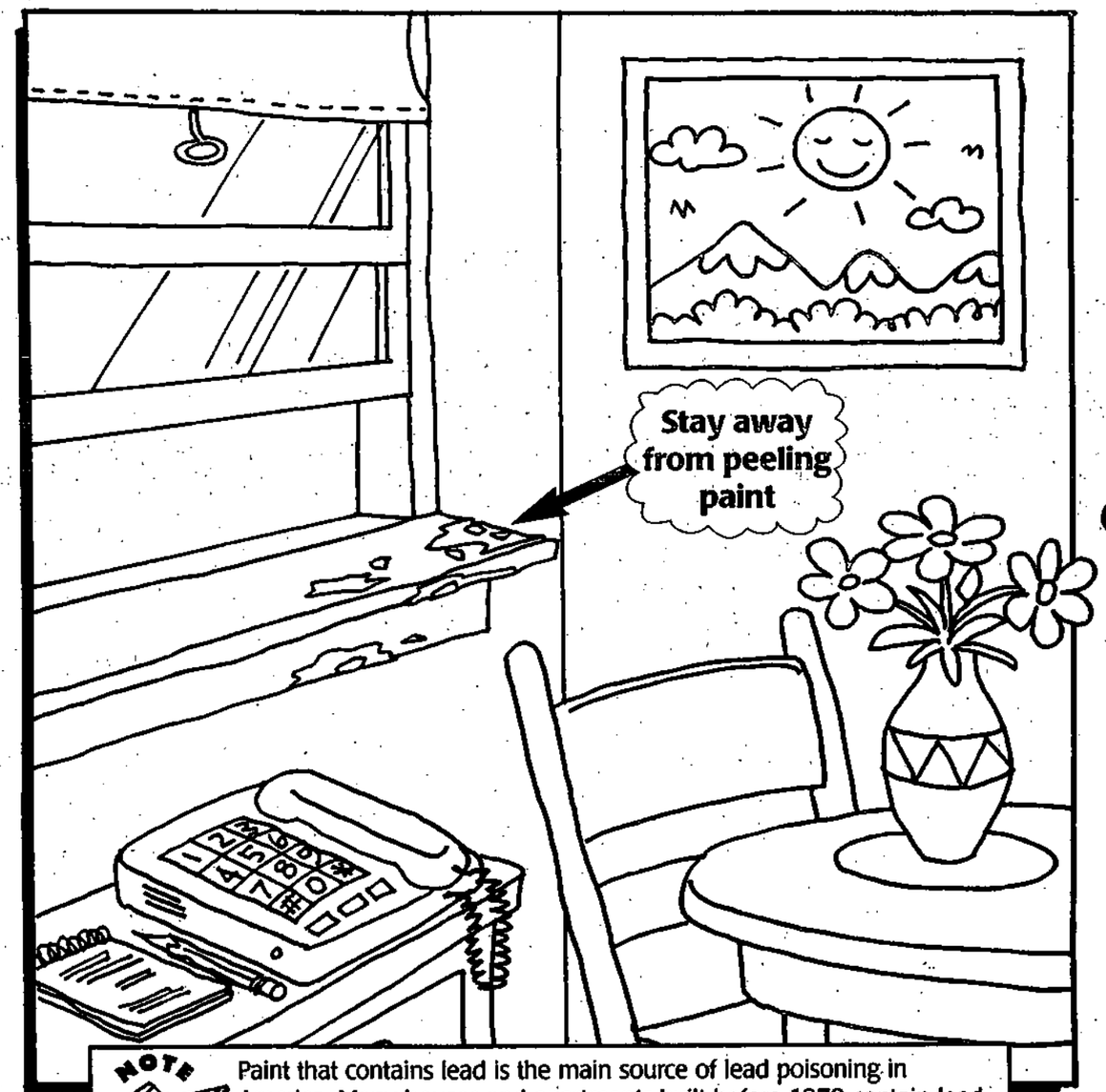


Connect the dots to find something you CAN smell.



Lead poisoning affects nearly a million American children under 6 years old. Adults often overlook the possibility of lead poisoning because lead is less obvious than other dangers.

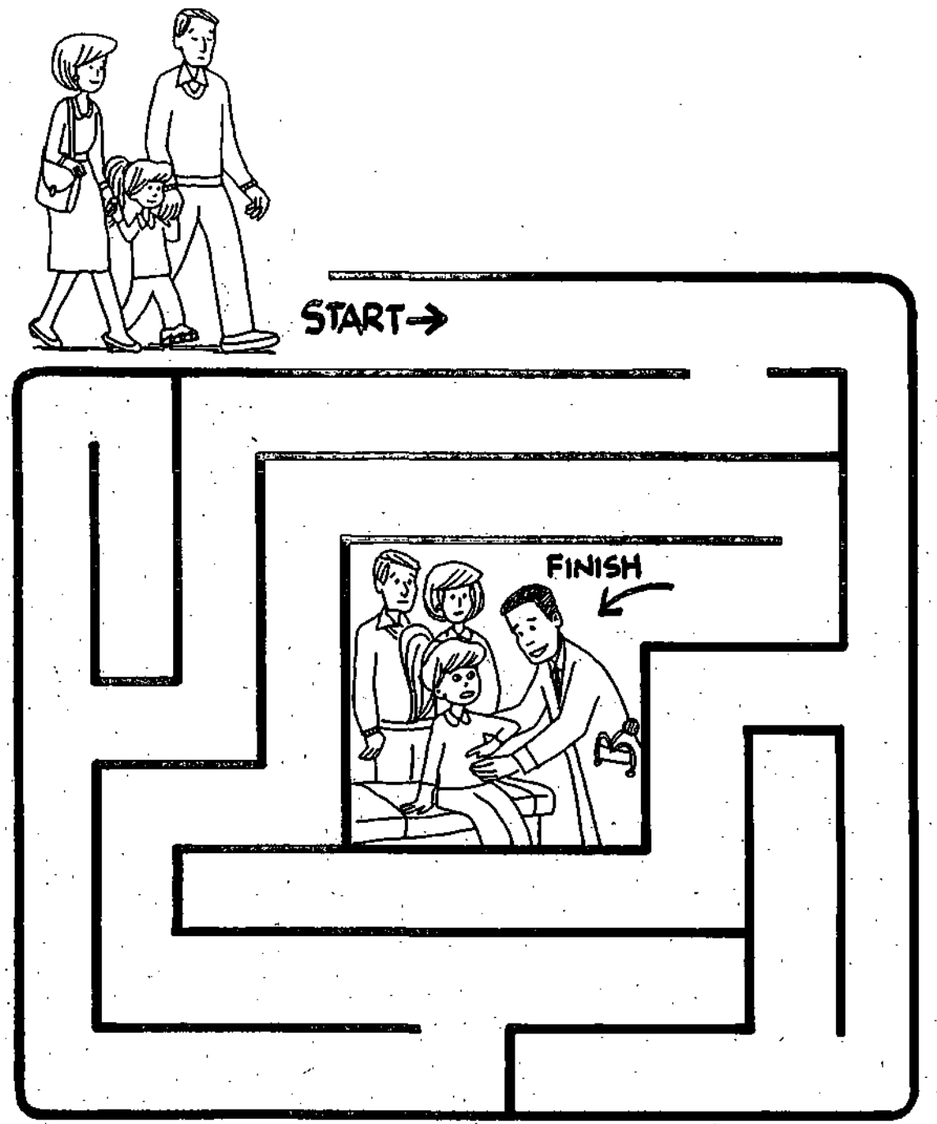
Lead can be in many places. In your home, lead can be in paint chips (small pieces of paint) or in dust in the air. Never touch anything with peeling or chipping paint.



NOTE TO ADULTS

Paint that contains lead is the main source of lead poisoning in America. Many houses and apartments built before 1978 contain lead paint. Chipping and peeling paint, and dust from the paint, can be anywhere in your home. Wash floors and windowsills weekly.

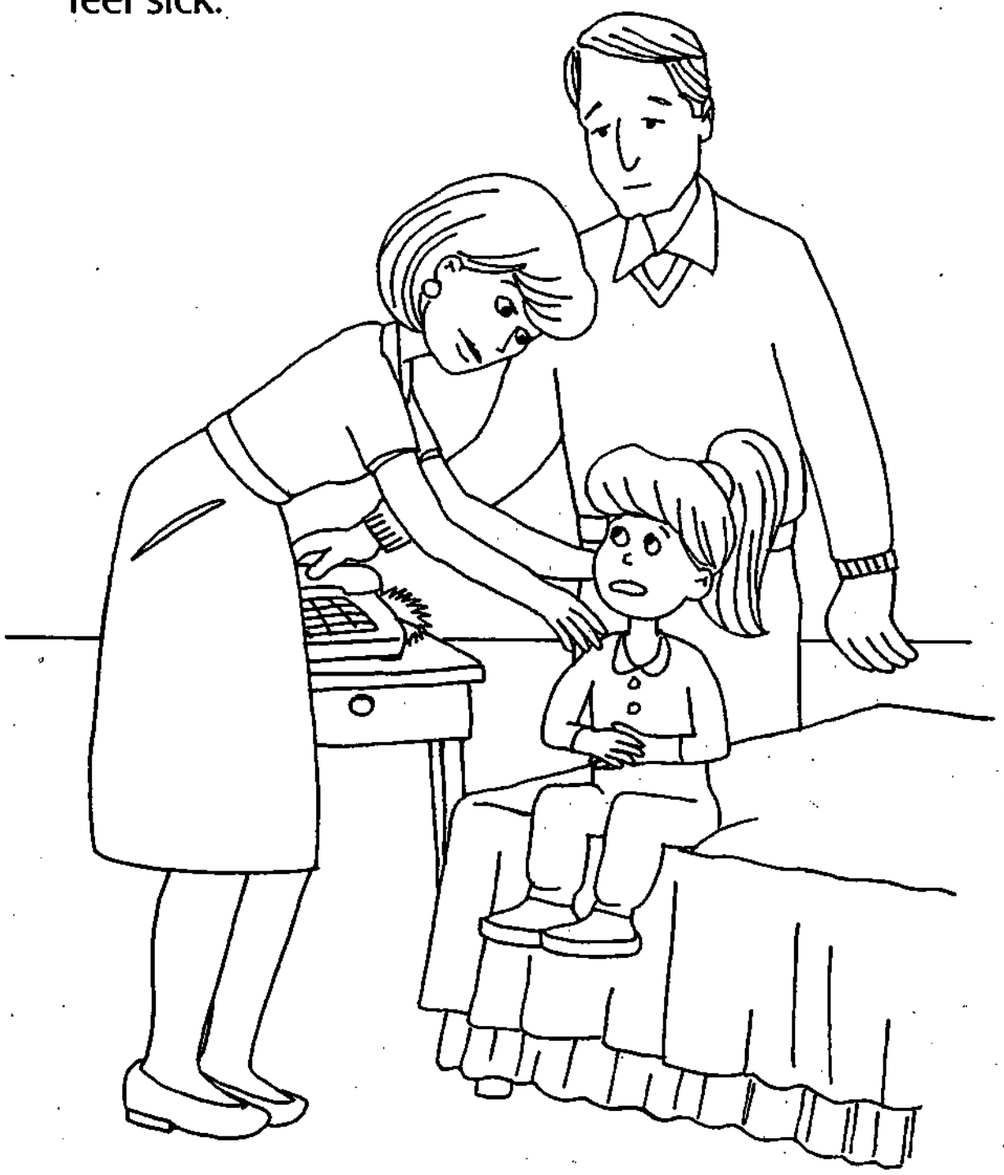
Your parents may take you to the doctor. The doctor can make sure you are safe from lead.



NOTE TO ADULTS

All children are at risk for lead poisoning. The only way to detect it is through a blood test. Even if your child seems healthy, he or she may have a high lead level. Your doctor can determine if the lead level in your child's body is harmful.

If too much lead gets into your body, you could feel sick.

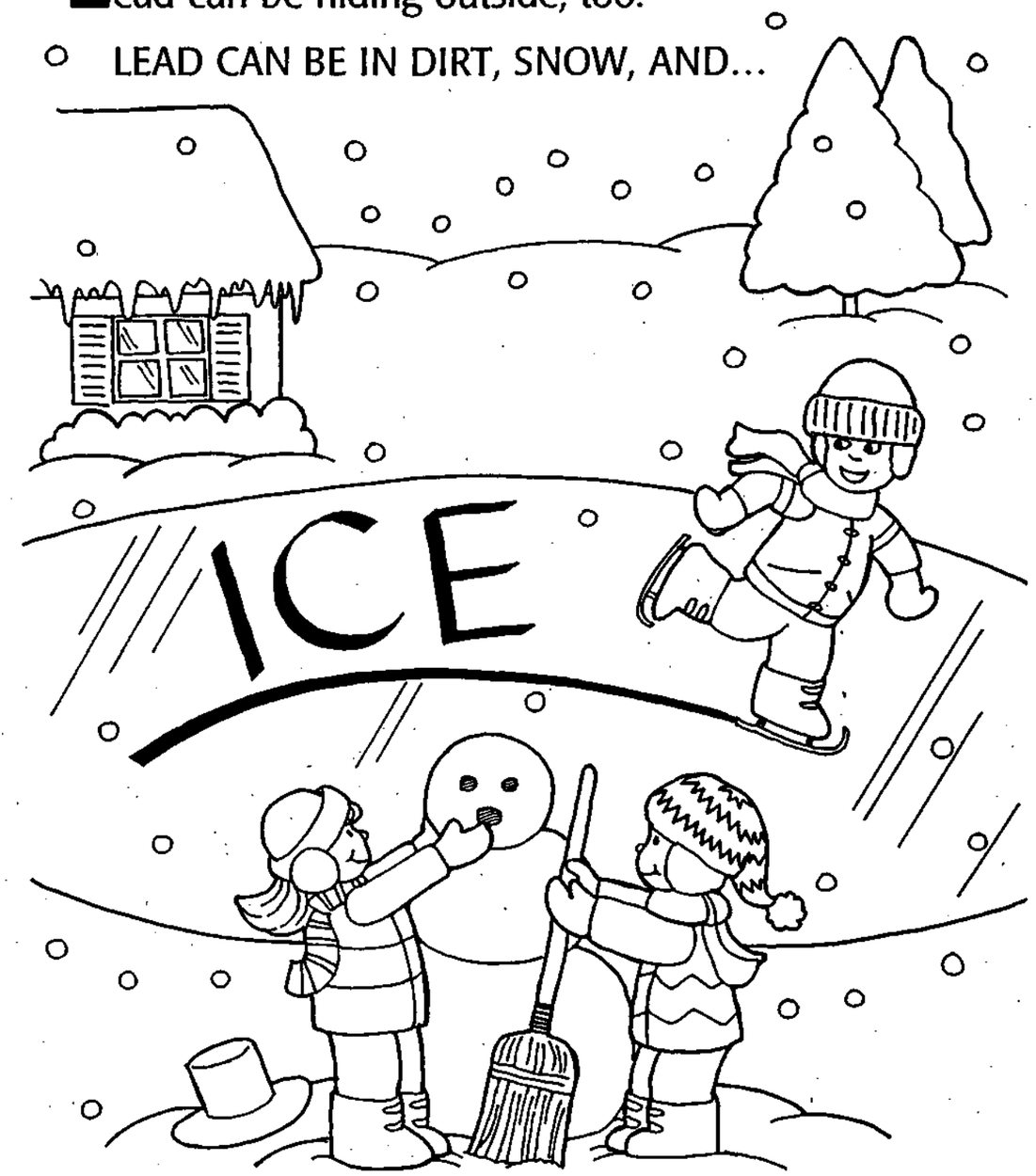


NOTE TO ADULTS

Lead poisoning in children may cause damage to the brain and nervous system, behavior and learning problems (such as hyperactivity), hearing problems, slowed growth, and headaches.

Lead can be hiding outside, too.

LEAD CAN BE IN DIRT, SNOW, AND...



NOTE TO ADULTS

Lead gets in dirt and snow from lead dust, chips of exterior lead paint, and past use of lead-based insecticides and leaded gasoline.

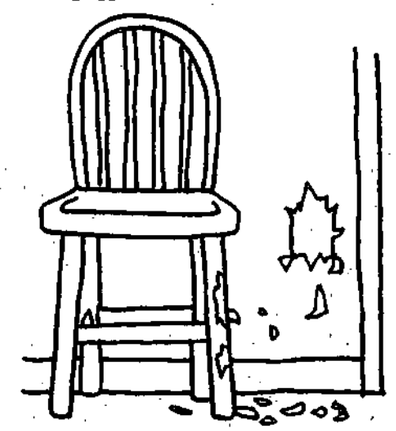
Wash your hands before you eat and after you play outside. This helps keep lead out of your body.

NOTE TO ADULTS

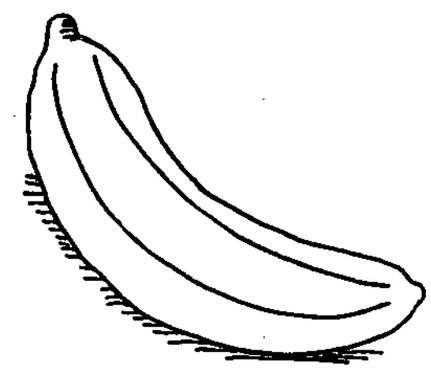
Teach children the importance of washing their hands often, and of never putting dirty hands in their mouth. Lead dust can be in the air from renovated homes in the neighborhood, and can settle on anything outside that your child touches.

3

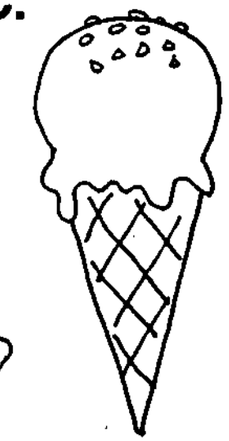
A.



B.

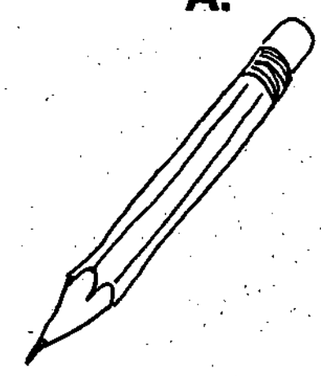


C.



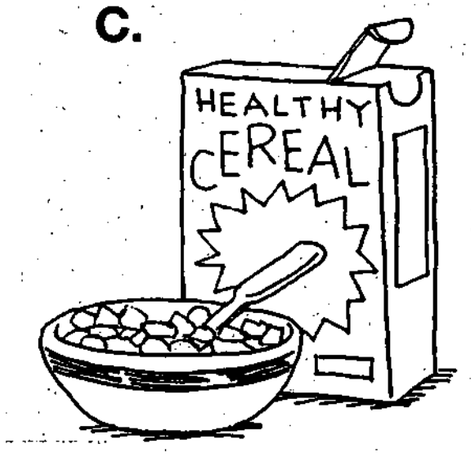
4

A.



B.

C.



NOTE TO ADULTS

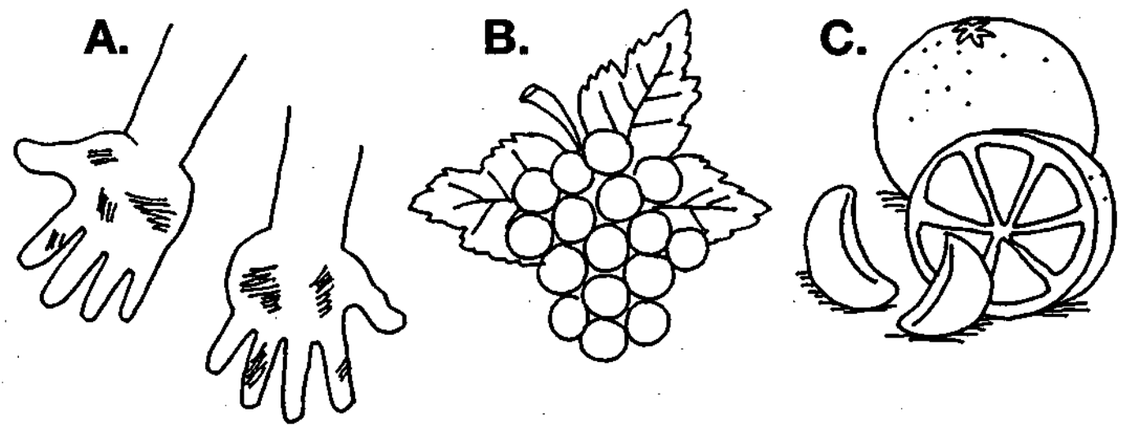
Lead paint can be on older toys, furniture, and public playground equipment. Lead also may be in antique pewter and copper, drapery and window weights, some imported porcelain and pottery, some imported vinyl miniblinds, fishing weights, and battery casings.

Never put things in your mouth that could have lead on them or in them. These include paint chips, snow, dirt, icicles, toys, or your hands.

ACTIVITY Cross out the item in each row that you should NEVER put in your mouth.

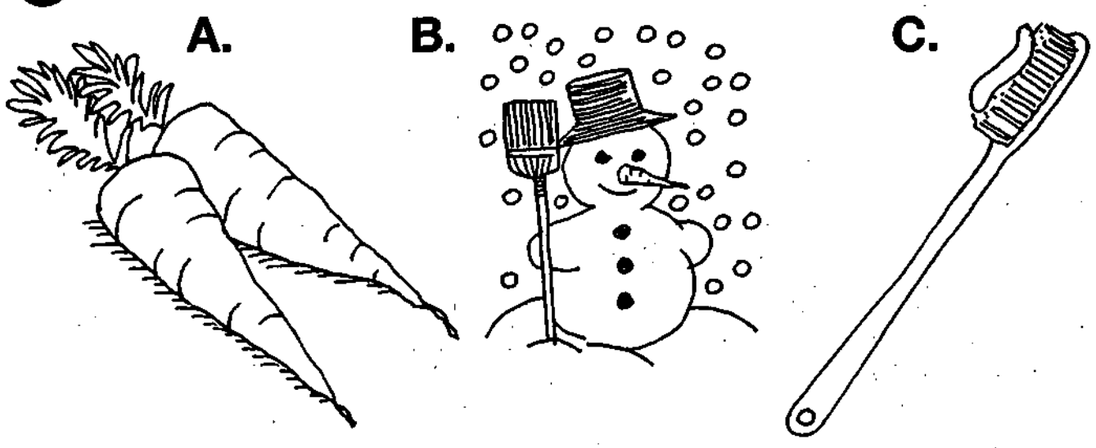
1

A. B. C.



2

A. B. C.



Put only good food and drinks in your mouth. This also helps to keep you safe from lead.

ACTIVITY The foods below can help keep you healthy. Draw a line from each food name to its picture.

1. MILK

2. FISH

3. SPINACH

4. RAISINS

5. BREAD

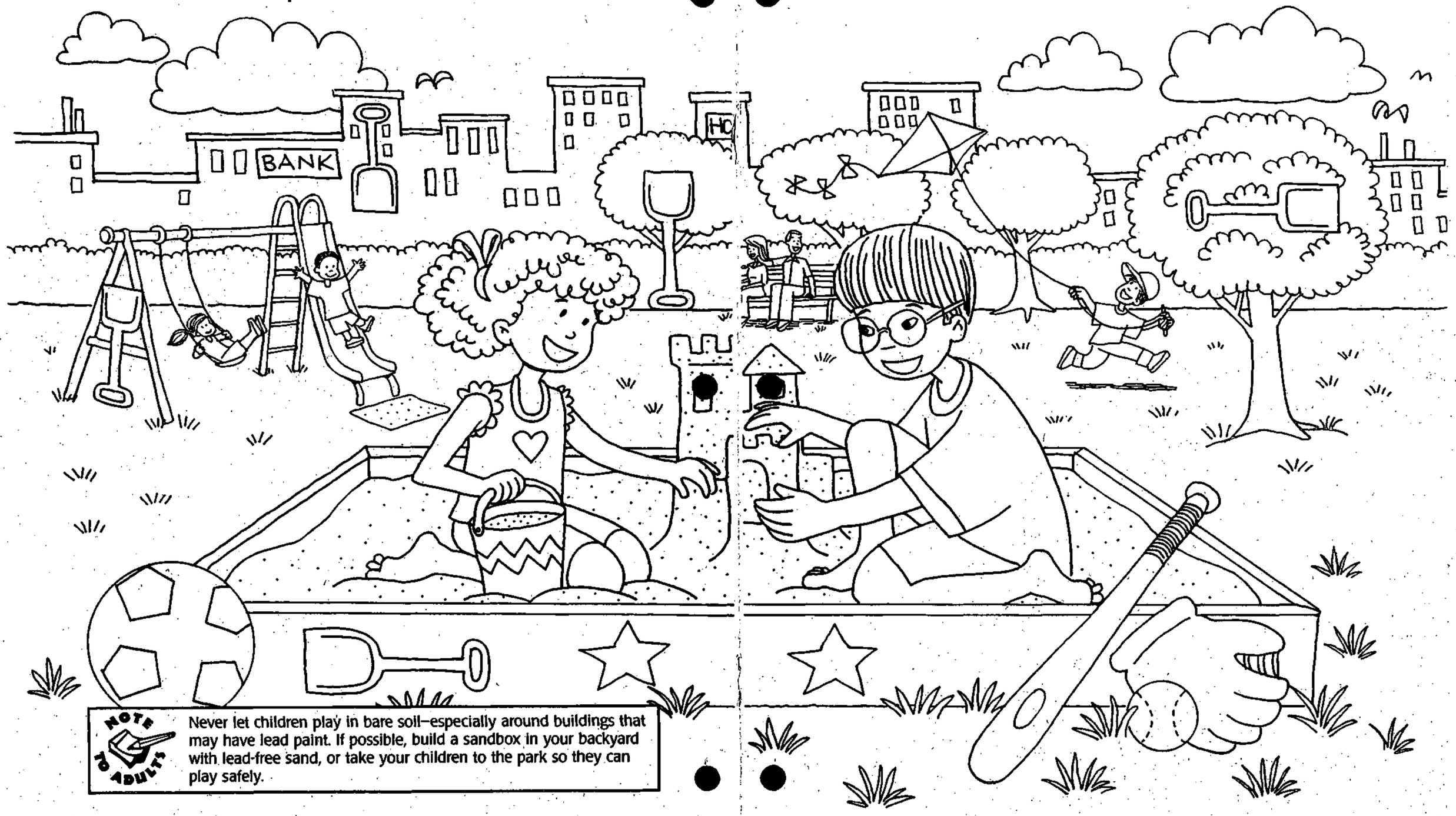
6. ORANGE

A. **B.** **C.** **D.** **E.** **F.**

NOTE TO ADULTS A child's body absorbs lead more easily than an adult's. A healthy diet can help keep lead from getting into a child's bones and blood. Encourage your child to eat foods that are high in iron, calcium, and vitamin C. Limit fat and sugar.

To stay away from lead, play in safe areas only. A sandbox is a safe place.

ACTIVITY Find the five shovels hidden in this picture.



NOTE TO ADULTS

Never let children play in bare soil—especially around buildings that may have lead paint. If possible, build a sandbox in your backyard with lead-free sand, or take your children to the park so they can play safely.

The Lead Pre-Renovation Education Rule (Lead PRE) At-A-Glance

If you will be working for **compensation** in a pre-1978 home or apartment building, answer the questions below to determine if Lead PRE requires you to give the **lead pamphlet** to the **owner** and occupants.

Does this job involve **renovations** which disturb painted surfaces?

NO → **Lead PRE Does Not Apply**

YES ↓

Are ANY of the following conditions present?

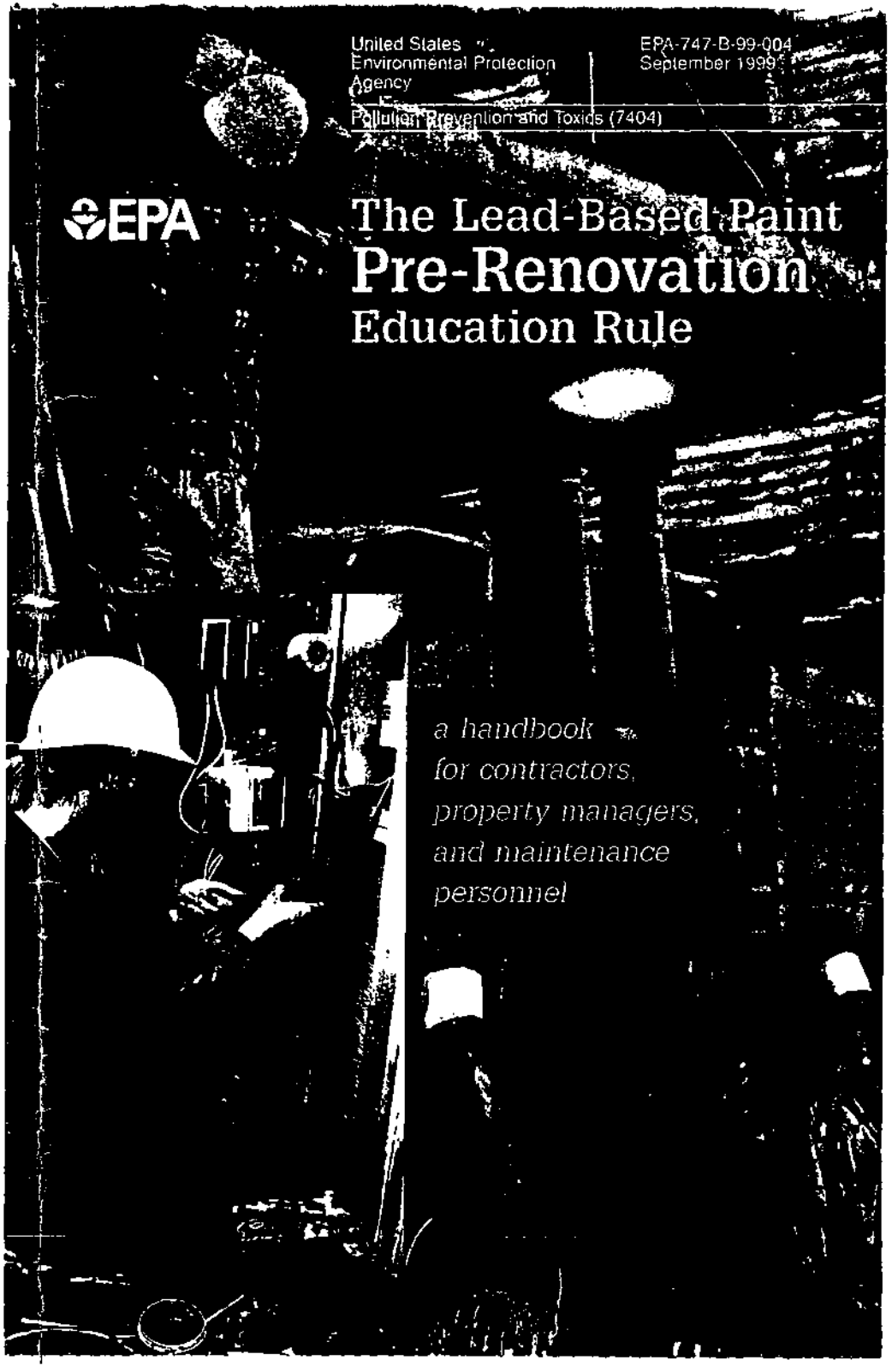
- The work is an **emergency renovation**
- The work is a **lead abatement** project
- The work consists of **minor repairs or maintenance** that disturbs 2 square feet or less of painted surfaces
- The housing or its **components** have been determined to be lead-based paint free by a **certified inspector** or **risk assessor**
- The housing is a **zero-bedroom dwelling** (studio apartments, dormitories, etc.)
- The housing is **housing for the elderly** or disabled AND children are not expected to reside there

YES → *If Any Yes* → **Lead PRE Does Not Apply**

NO ↓ *If All No*

If no, then you need to read this book! Rental property owners and managers, renovators, and maintenance personnel are affected by Lead PRE.

Bold Type = Key Terms (see pages 8–10 inside)



What Is The Lead-Based Paint Pre-Renovation Education Rule (Lead PRE)?

- The Lead PRE Rule is a Federal regulation affecting construction contractors, property managers, and others who perform **renovations** for **compensation** in residential housing that may contain lead-based paint.
- It applies to residential houses and apartments built before 1978.
- It requires distribution of the **lead pamphlet**, *Protect Your Family from Lead in Your Home*, to the owners and occupants before starting **renovation** work.
- **Renovation** includes most repair, remodeling, and maintenance activities that disturb painted surfaces.
- Lead PRE implements Section 406(b) of the Toxic Substances Control Act (TCSA).

About This Handbook

- This handbook summarizes Lead PRE and how to comply with it. To ensure compliance, you should also read the rule.
- Key terms are highlighted in **bold** and are explained on pages 8-10.

Who Should Read This Handbook?

- Anyone who owns or manages housing built before 1978.
- Contractors who perform **renovations** (including certain repairs and maintenance) which disturb paint in homes built before 1978.

How Can This Handbook Help Me?

- This handbook presents simple steps to follow to comply with Lead PRE. It also lists ways these steps can be easily incorporated into your work.
- Having demonstrated knowledge of lead requirements and safety practices can mean more business for you.
- Distributing the **lead pamphlet** to your customers and tenants can help them protect themselves and their children from the hazards of lead-based paint.
- This handbook describes the law. It also explains the proper steps to take to avoid potentially significant civil (monetary) and criminal fines and penalties.

Where Can I Get Copies of the **Lead Pamphlet**?

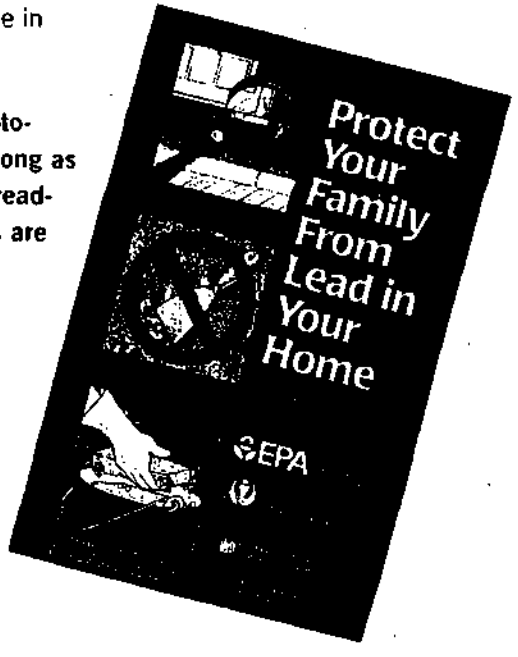
For single copies of *Protect Your Family From Lead in Your Home* (in Spanish or English), call the National Lead Information Clearinghouse (NLIC) at 1-800-424-LEAD. For any orders, be sure to use the stock reference number **EPA747-K-99-001**.

There are four ways to get multiple copies:

1. **Call the Government Printing Office order desk at (202) 512-1800.**
2. Send fax requests to **(202) 512-2233.**
3. Request copies in writing from:
   Superintendent of Documents
   P.O. Box 371954
   Pittsburgh, PA 15250-7954
4. **Obtain via the Internet at www.epa.gov/lead**

Single copies are available at no charge. Bulk copies available in packs of 50.

The pamphlet may be photocopied for distribution as long as the text and graphics are readable. Camera-ready copies are available from NLIC or via the Internet.



Sample Forms (continued)

Renovation Notice — *For use in notifying tenants of renovations in common areas of multi-family housing.*

The following renovation activities will take place in the following locations:

_____
Activity *(e.g., sanding, window replacement)*

_____
Location *(e.g., lobby, recreation center)*

The expected starting date is _____ and the expected ending date is _____. Because this is an older building built before 1978, some of the paint disturbed during the renovation may contain lead. You may obtain a copy of the pamphlet, *Protect Your Family From Lead in Your Home*, by telephoning me at _____. Please leave a message and be sure to include your name, phone number and address. I will either mail you a pamphlet or slide one under your door.

_____ Date

_____ Printed name of renovator

_____ Signature of renovator

Record of Tenant Notification Procedures — *Procedures Used For Delivering Notices to Tenants of Renovations in Common Areas*

Project Address:

_____
Street (apt. #)

_____
City State Zip Code

_____
Owner of multi-family housing Number of dwelling units

_____
Method of delivering notice forms *(e.g. delivery to units, delivery to mailboxes of units)*

_____
Name of person delivering notices

_____
Signature of person delivering notices Date of Delivery

What Does Lead PRE Require Me To Do?

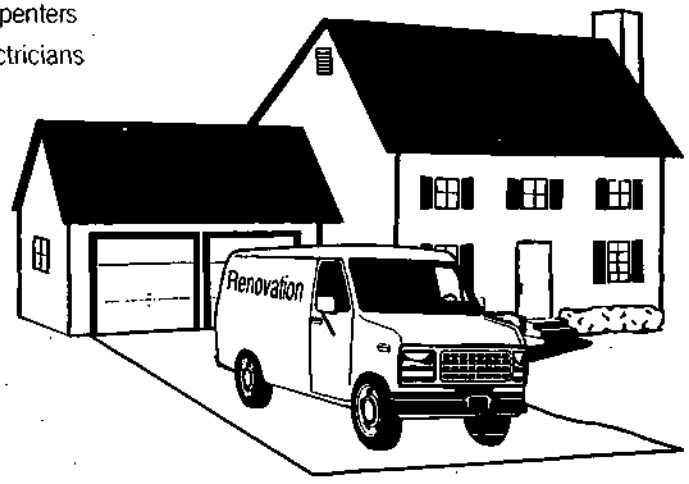
1. Distribute a **lead pamphlet** to the housing **owner** and occupants before **renovation** starts.
2. Obtain **confirmation of receipt of lead pamphlet** (see page 11) from owner and occupants or a **certificate of mailing** from the post office.
3. For work in **common areas** of **multi-family housing**, distribute **renovation notices** to tenants.
4. Retain records for 3 years.

(See page 4 for more details)

Who Must Follow These Requirements?

In general, anyone whose compensated work disturbs paint in housing built before 1978, including:

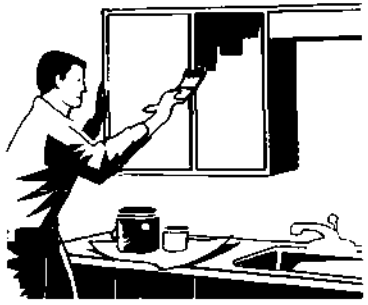
- Residential rental property owners/managers
- **General contractors**
- **Special trade contractors**, including
  - Painters
  - Plumbers
  - Carpenters
  - Electricians

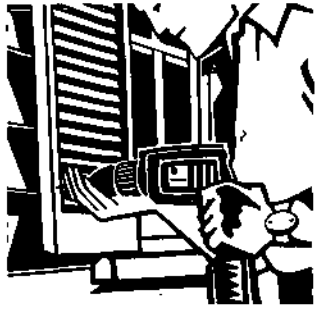


What Types Of Activities Are Subject To Lead PRE?

In general, any activity that disturbs paint in pre-1978 housing, including:

- Remodeling and repair/maintenance
- Plumbing
- Carpentry
- Electrical work
- Painting
- Window replacement





What Housing Or Activities Are Excluded From Lead PRE?

- Housing built in 1978 or later
- **Housing for the elderly** or disabled persons (unless children will reside there)
- **Zero-bedroom dwellings** (studio apartment, dormitories, etc.)
- Housing or **components** declared lead-free by a **certified inspector** or **risk assessor**
- **Emergency renovations** and repairs
- **Minor repairs and maintenance** that disturb two square feet or less of paint per **component**

Sample Forms

The forms on the next two pages are sample forms you can use to make documentation of compliance easier.

Confirmation of Receipt of Lead Pamphlet

I have received a copy of the pamphlet, *Protect Your Family From Lead in Your Home*, informing me of the potential risk of the lead hazard exposure from renovation activity to be performed in my dwelling unit. I received this pamphlet before the work began.

_____ _____
Printed name of recipient Date

_____
Signature of recipient

Self-Certification Option (for tenant-occupied dwellings only) — *If the lead pamphlet was delivered but a tenant signature was not obtainable, you may check the appropriate box below.*

☐ Refusal to sign — I certify that I have made a good faith effort to deliver the pamphlet, *Protect your Family From Lead In Your Home*, to the rental dwelling unit listed below at the date and time indicated and that the occupant refused to sign the confirmation of receipt. I further certify that I have left a copy of the pamphlet at the unit with the occupant.

☐ Unavailable for signature — I certify that I have made a good faith effort to deliver the pamphlet, *Protect Your Family From Lead In Your Home*, to the rental dwelling unit listed below and that the occupant was unavailable to sign the confirmation of receipt. I further certify that I have left a copy of the pamphlet at the unit by sliding it under the door.

_____ _____
Printed name of person certifying lead pamphlet delivery Attempted delivery date and time

_____
Signature of person certifying lead pamphlet delivery

_____

_____

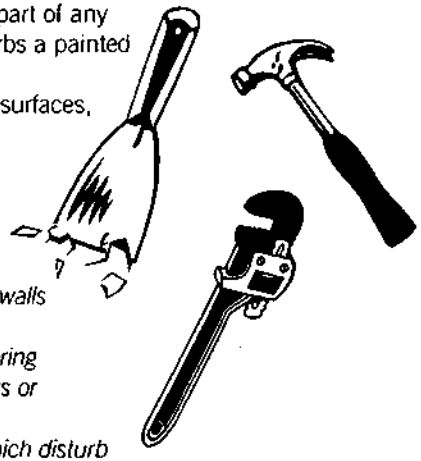
_____
Unit Address

Note Regarding Mailing Option — *As an alternative to delivery in person, you may mail the lead pamphlet to the owner and/or tenant. Pamphlet must be mailed at least 7 days before renovation (Document with a certificate of mailing from the post office).*

Key Terms (continued)

Renovation — modification of all or part of any existing structure in housing that disturbs a painted surface. Includes:

- Removal/modification of painted surfaces, components, or structures
- Surface preparation activities (sanding/scraping/other activities that may create paint dust)
- Window replacement



Examples 1: *Demolition of painted walls or ceilings*
2: *Large surface replastering*
3: *Major plumbing repairs or improvements*
4: *Any other activities which disturb painted surfaces*

Renovation Notice — notice to tenants of renovations in common areas of multifamily housing. *(See sample form on page 12.)* Notice must describe nature, location, and expected timing of renovation activity; and must explain how the lead pamphlet may be obtained free of charge.

Renovator — a person who performs for compensation a renovation, as defined above. *(**Note:** Because the term "renovation" is defined broadly by Lead PRE, many contractors who are not generally considered to "renovators," as that term is commonly used, are considered to be "renovators" under Lead PRE, and must follow Lead PRE requirements.)*

Self-Certification of Delivery — an alternative method of documenting delivery of the lead pamphlet to a tenant. This method may be used whenever the tenant is unavailable or unwilling to sign a confirmation of receipt of lead pamphlet. *(See sample form on page 11.)* *(**Note:** This method is not a permissible substitute for documenting delivery of the lead pamphlet to an owner.)*

Special Trade Contractors — individuals or companies performing work in specialized occupations such as painting, electrical work, plumbing, or carpentry.

Supplemental Renovation Notice — additional notification that is required when the scope, location, or timing of project changes.

Zero-Bedroom Dwelling — any residential dwelling where the living area is not separated from the sleeping area. This term includes efficiency and studio apartments, dormitory housing, and military barracks.

Lead PRE At-A-Glance

If you will be working for **compensation** in a pre-1978 home or apartment building, answer the questions below to determine if Lead PRE requires you to give the **lead pamphlet** to the **owner** and occupants.

Does this job involve **renovations** which disturb painted surfaces?

NO → **Lead PRE Does Not Apply**

YES ↓

Are ANY of the following conditions present?

- The work is an **emergency renovation**
- The work is a **lead abatement** project
- The work consists of **minor repairs or maintenance** that disturbs 2 square feet or less of painted surfaces
- The housing or its **components** have been determined to be lead-based paint free by a **certified inspector** or **risk assessor**
- The housing is a **zero-bedroom dwelling** (studio apartments, dormitories, etc.)
- The housing is **housing for the elderly** or disabled AND children are not expected to reside there

YES → *If Any Yes* → **Lead PRE Does Not Apply**

NO ↓ *If All No*

If no, then you need to provide the lead pamphlet (see page 4).

Bold Type = Key Terms (see pages 8–10)

How Do I Meet The Lead PRE Requirements?

Renovation Location	Procedures to Follow
Renovations in Owner-Occupied Dwelling Units	Box 1 Deliver **lead pamphlet** to **owner** before **renovation** begins and obtain **confirmation of receipt**. *(sample form on page 11).* **OR** Mail lead pamphlet to owner 7 days before renovation begins and document with **certificate of mailing**
Renovations in Tenant-Occupied Dwelling Units	Box 2 1. Provide **lead pamphlet** to **owner** using either procedure described in Box 1 above. 2. Provide lead pamphlet to tenant by either method below: (a) Deliver pamphlet to dwelling unit before **renovation** begins and document delivery with either a **confirmation of receipt** of lead pamphlet or a **self-certification of delivery**. *(sample form on page 11).* **OR** (b) Mail lead pamphlet to tenant at least 7 days prior to renovation and document with a **certificate of mailing**
Renovations in Common Areas of Multi-Family Housing Units	Box 3 1. Provide **owner** with **lead pamphlet** using either procedure described in Box 1 above. 2. Notify tenants and make pamphlet available. 3. Maintain written documentation describing notification procedures. 4. Provide **supplemental renovation notice** if changes occur in location, timing, or scope of renovation occurring.

For all options keep records for 3 years after renovation is completed. (Sample Forms on pages 11 and 12.)

Key Terms (continued)

Emergency Renovation — unplanned renovation activities done in response to a sudden, unexpected event which, if not immediately attended to presents a safety or public health hazard, or threatens property with significant damage.

Examples *1: Renovation to repair damage from a tree that fell on a house*
2: Renovation to repair a water pipe break in an apartment complex

General Contractor — one who contracts for the construction of an entire building or project, rather than for a portion of the work. The general contractor hires subcontractors (e.g. plumbing, electrical, etc.), coordinates all work, and is responsible for payment to subcontractors.

Housing for the Elderly — retirement communities or similar types of housing specifically reserved for households of one or more persons 62 years of age or older at the time the unit is first occupied.

Lead Abatement — work designed to permanently eliminate lead-based paint hazards. If you are hired to do lead-abatement work only, Lead PRE does not apply. Abatement does not include renovation, remodeling, landscaping, or other activities done to repair, restore, or redesign a given building — even if these activities incidentally reduce lead-based paint hazards. ***(Note:*** *Some states define this term differently than described above. Consult your state officials if you are not sure how "lead abatement" is defined in your state.)*

Lead Pamphlet — the pamphlet *Protecting Your Family From Lead in Your Home*, or an EPA-approved alternative pamphlet. *(See page 13 for information on obtaining copies.)*

Minor Repair and Maintenance — minor repair and maintenance activities, such as minor electrical work or plumbing, that disturb two square feet or less of painted surface per component.

Examples *1: Drilling holes in the wall to run an electrical line*
2: Replacing a piece of window trim
3: Replacing a light fixture

Multi-family Housing — housing property consisting of more than four dwelling units.

Owner — any person or entity that has legal title to housing, including individuals, partnerships, corporations, government agencies, Indian Tribes, and nonprofit organizations.

Record of Notification — written statement documenting the steps taken to notify occupants of renovation activities in common areas of multi-family housing. *(See page 12 for sample.)*

Key Terms

Certificate of Mailing — written verification from the Postal Service that you mailed the lead pamphlet to an owner or a tenant. This is less expensive than certified mail, which is also acceptable for meeting Lead PRE requirements. *(**Note:** If using this delivery option, you must mail the pamphlet at least 7 days prior to the start of renovation.)*

Certified Inspector or Risk Assessor — an individual who has been trained and is certified by EPA or an authorized state or Indian Tribe to conduct lead-based paint inspections or risk assessments.

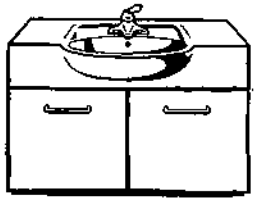
Common Area — a portion of a building that is generally accessible to all residents or users. Common areas include (but are not limited to) hallways, stairways, laundry rooms, recreational rooms, playgrounds, community centers, and fenced areas. The term applies to both interiors and exteriors of the building. *(**Note:** Lead PRE requirements related to common areas apply only to multi-family housing.)*

Compensation — payment or goods for services rendered. Payment can be in the form of money, goods, or services (bartering).

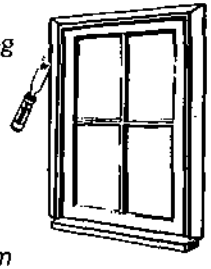
Component — specific design or structural element or fixture distinguished by its form, function, and location. A component can be located inside or outside the dwelling.

Examples

Interiors
Ceilings
Crown molding
Walls
Doors and trim
Floors
Fireplaces
Radiators
Shelves
Stair treads
Windows and trim
Built-in cabinets
Beams
Bathroom vanities
Counter tops
Air conditioners



Exterior
Painted roofing
Chimneys
Flashing
Gutters and downspouts
Ceilings
Soffits
Doors and trim
Fences
Floors
Joists
Handrails
Window sills and sashes
Air conditioners



Confirmation of Receipt of Lead Pamphlet — a form that is signed by the owner or tenant of the housing confirming that they received a copy of the lead pamphlet before the renovation began. *(See sample on page 11.)*

Special Circumstances

Is painting considered renovation, even if no surface preparation activity occurs?

No. If the surface to be painted is not disturbed by sanding, scraping, or other activities that may cause dust, the work is not considered renovation and Lead PRE does *not* apply.

What if I renovate my own home?

Lead PRE applies only to **renovations** performed for **compensation**; therefore, if you work on your own home Lead PRE does not apply.

Is a renovation performed by a landlord or employees of a property management firm considered a compensated renovation under Lead PRE?

Yes. The receipt of rent payments or salaries derived from rent payments is considered **compensation** under Lead PRE. Therefore, **renovation** activities performed by landlords or employees of landlords are covered.

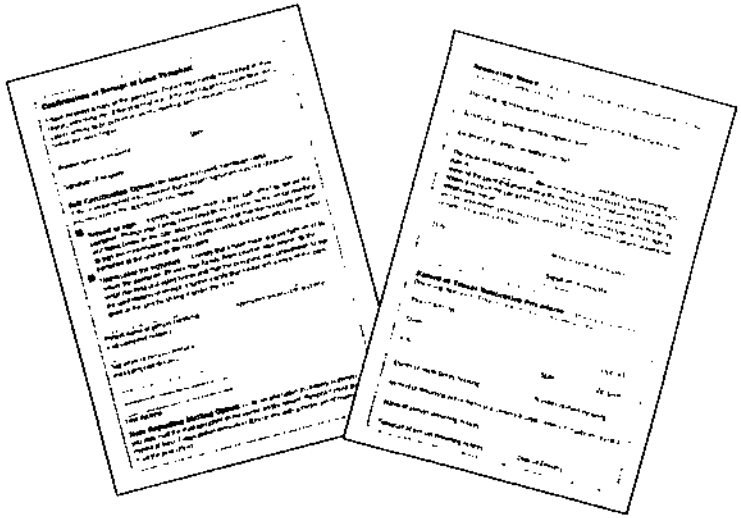
Do I have to give out the lead pamphlet 7 days prior to beginning renovation activities?

The 7-day advance delivery requirement applies only when you deliver the **lead pamphlet** via mail; otherwise, you may deliver the pamphlet *anytime* before the **renovation** begins. Note, however, that the renovation must begin within 60 days of the date that the pamphlet is delivered. So for example, if your renovation is to begin May 30, you may deliver the pamphlet in person anytime between April 1 and start of the project on May 30, or you may deliver the pamphlet via mail anytime between April 1 and May 23.

Bold Type = Key Terms (see pages 8–10)

Tips For Easy Compliance

1. Copy and use the sample forms on pages 11 and 12 of this handbook.
2. Attach the forms to the back of your customer **renovation** or repair contracts. The completed forms can be filed along with your regular paperwork.
3. If a tenant is not home or refuses to sign the form, you may use the "self-certification" section of the form *(on page 11)* to prove delivery. This will reduce your paperwork.
4. Plan ahead to obtain enough copies of the **lead pamphlet**.



Where Can I Obtain More Information on Lead PRE?

Further information is available from the National Lead Information Clearinghouse (800-424-LEAD) or through the Internet (www.epa.gov/lead). Available resources include:

- Full text version of Lead PRE
- Interactive software which guides the users through the Lead PRE requirements on a step-by-step basis *(available in late June)*
- Interpretive guidance which provides more detailed information on Lead PRE requirements

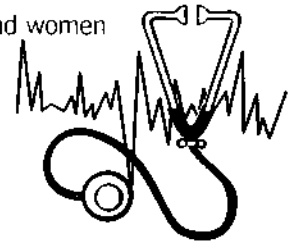
Why is Lead Paint Dangerous?

People can ingest lead by breathing or swallowing lead-based paint dust or by eating lead-contaminated soil or lead-based paint chips. Household animals are also at risk.

If not detected early, high levels of lead in a child can cause serious effects, including:

- Damage to the brain and nervous system
- Behavior and learning problems
- Slowed growth
- Hearing problems
- Headaches

Lead is also harmful to adults and can, among other effects, cause:



- Difficulties during pregnancy
- Other reproductive problems for men and women
- High blood pressure
- Digestive problems
- Nerve disorders
- Memory and concentration problems
- Muscle and joint pain

Lead can be dangerous to workers and their families if the worker brings equipment and clothing home after a job.

Other Resources

For additional information on how to protect yourself and your customers from lead paint hazards, call the National Lead Information Clearinghouse at 1-800-424-LEAD. Available documents include:

- *Lead-Based Paint: Operations and Maintenance Work Practices Manual for Homes and Buildings*
- *Lead Safety for Property Owners, Developers, and Managers*
- *Reducing Lead Hazards When Remodeling Your Home*
- *Lead in Your Home: A Parents' Reference Guide*
- *Lead Paint Safety: A Field Guide for Painting, Home Maintenance, and Renovation Work*

Bold Type = Key Terms (see pages 8–10)

Lead Paint Can Poison: Are Your Tenants at Risk?

U.S. Department of Housing and Urban Development

HUD WANTS YOU TO LEARN THE FACTS ABOUT LEAD SAFETY.

Most homes built before 1978 contain lead paint which, if not managed properly, can endanger young children.

As a landlord, you can protect your tenants by keeping your property free of lead paint hazards.

Federal law requires you to give your tenants information about lead hazards. State and local laws also apply.

Q. Where is lead paint found?

A. Most homes built before 1978 have some lead paint. Properties built before 1960 have the most lead paint. Lead paint can be present on any painted surface, but it is most often found on windows, trim, doors, railings, columns, porches and outside walls. Surfaces that have been repainted may have layers of lead paint underneath. A lead inspection can tell you where lead paint is located.

Q. When is lead paint a hazard?

A. Peeling or damaged paint is dangerous. Lead dust can be released from peeling or damaged paint or by sanding or scraping paint in older homes. Lead dust settles on floors, window sills and other surfaces where it can get into children's mouths. Lead paint in good condition is usually not a problem.

Q. What is the Lead Disclosure Rule and how does it apply to me?

A. The Lead Disclosure Rule requires owners to give tenants a brochure and to provide test results and standard warning language in leases. This must be done before a new tenant signs a lease and before an existing tenant renews a lease for properties built before 1978. Call 1-800-424-LEAD for free copies of the brochure, *Protect Your Family From Lead in Your Home*, the standard warning language and other information about the Lead Disclosure Rule.

Q. How can I protect my tenants?

A. It's as easy as 1, 2, 3.

1. Keep paint in good shape.
2. Watch out for lead dust when you repair, repaint or renovate.
3. Make lead safety a habit.

USE HUD'S SIMPLE CHECKLIST ON THE REVERSE SIDE OF THIS FACT SHEET TO PROTECT YOUR TENANTS FROM LEAD PAINT HAZARDS.

LEAD-SAFE AMERICA

POST THIS CHECKLIST WHERE IT WILL BE SEEN AND USED.

1. **Keep paint in good shape.**
   - ❑ Fix water damage from leaks and infiltration. Keep the roof in good repair and keep gutters and downspouts clear.
   - ❑ Tell your tenants to report peeling paint and respond quickly when they do.
   - ❑ Check for peeling paint and repair it every time you or your workers come on the property. Examine units thoroughly at turnover.

2. **Watch out for lead dust when you repair, repaint or renovate.**
   - ❑ Seal off the work area by covering floors, doors, furniture, windows and vents with heavy plastic. If possible, remove furniture from the room. Keep children and pregnant women away from the work area.
   - ❑ Wet down the paint before sanding or scraping to control lead dust.
   - ❑ Avoid creating dust or paint chips. A power sander or grinder should have a hood to trap dust and a HEPA vacuum attachment. Do not use power washing, abrasive blasting, open flame torches, heat guns over 1100°F or paint strippers that contain methylene chloride.
   - ❑ Workers should wear protective clothing. Before leaving the work area, workers should clean or remove their shoes to avoid tracking lead dust around the property.
   - ❑ Roll up or fold plastic sheets to keep dust from escaping.
   - ❑ Use a vacuum with a HEPA filter to clean all floors and other surfaces where dust can settle.
   - ❑ Wash floors, walls and other surfaces with soap and water and rinse with fresh water.
   - ❑ Dispose of debris, towels and wash cloths in heavy plastic bags. Never burn leaded debris.
   - ❑ Conduct a lead dust test at the end of a job. Contact an environmental lab for a sampling kit or hire an independent lead professional. Lead dust levels should be no more than 40 micrograms per square foot on floors. If levels are higher, clean the area again, then retest.

3. **Make lead safety a habit.**
   - ❑ Train your staff. Many community colleges and trade associations offer courses in lead-safe practices.
   - ❑ Insist on lead-safe practices when you hire a contractor.
   - ❑ Call in a certified lead expert if you or your crew do not have experience with lead hazards. Call 1-888-LEADLIST for a list of lead service providers.
   - ❑ Obey the law.

HUD WANTS EVERY CHILD TO HAVE A LEAD-SAFE HOME!

For more information on working safely with lead paint, see HUD's fact sheet, *Lead Paint Can Poison: Protect Your Family When You Repaint or Remodel*, or the booklet, *Lead Paint Safety: A Field Guide for Painting, Home Maintenance, and Renovation Work*. For a free copy of each, call 1-800-424-LEAD.

For a free brochure on other home safety issues, call HUD's Healthy Homes hotline at 1-800-HUDS-FHA or visit HUD's Web site at **www.hud.gov**. HUD is on your side.

LEAD-SAFE AMERICA

Sponsored by the U.S. Department of Housing and Urban Development

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Environmental Protection
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EPA 747-K-00-001
July 2000

EPA

Testing Your Home For Lead

In Paint, Dust, And Soil

Preface

About This Publication

This publication is for anyone who is considering having a home or residence tested for lead in paint, dust, or soil by a lead-based paint professional. It explains the technical aspects of lead testing without overwhelming the reader. Thus, commonly asked questions are presented in logical order. The first section tells why you would test for lead, the approaches for testing for lead, and what information you will get from each approach. The second section answers specific questions about how paint, soil, and dust sampling are conducted by a lead-based paint professional in your home. Finally, the last section answers other questions about testing, including questions about home test kits and testing of water and ceramics.

Important:

This publication addresses federal regulations and guidelines. Your state may have its own lead program and different regulations. For more information, contact the National Lead Information Center (NLIC) at **1-800-424-LEAD** or visit **http://www.epa.gov/lead**.

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Section 1

General Questions About Testing Procedures

Q: Why Should I Test My Home For Lead?

A: There are numerous reasons why you might want to test your home for lead, especially if built before 1978.

I. There Are (Or Will Be) Children Age Six And Younger In The Home

Lead from paint, especially peeling or flaking paint, can get into dust and soil in and around a home. Young children may then swallow the lead during normal hand-to-mouth activity. In addition, an unborn child may be exposed to lead in the mother's womb. High levels of lead in the fetus and in children age six and younger have been linked to nervous system damage, behavior and learning problems, and slow growth. Testing can tell you whether there is lead-based paint or a lead-based paint hazard in your home.

II. You Are About To Remodel, Renovate, Or Repaint Your Home

Any disturbance of lead-based paint can create a hazard by depositing lead chips or particles in the house dust or in the soil around the house. If you are planning on doing renovation, remodeling, or repainting, you should have testing done by a certified lead-based paint professional on any painted surfaces that will be removed, disturbed, scraped, or sanded before starting the work. The EPA brochure *Reducing Lead Hazards When Remodeling Your Home* (see page 16) provides guidelines for renovating or remodeling your home.

If your house was built before 1978 and you hire a professional to renovate, the renovator must, before beginning renovation, give you a copy of the EPA pamphlet *Protect Your Family From Lead In Your Home.*

III. You Are Renting Or Buying A Home

The Federal Lead-Based Paint and Lead-Based Paint Hazards Disclosure Rule requires that the landlord or seller of a residential dwelling built prior to 1978 provide the renter or buyer with:

- The pamphlet *Protect Your Family From Lead In Your Home* and
- Any available information on lead-based paint or lead-based paint hazards in the home.

A buyer must be given the opportunity to conduct testing to determine whether lead-based paint or lead-based paint hazards are present. While you are not required by law to test for lead, it may be advisable if you have (or plan to have) young children in the home.

IV. You Are A Landlord Or Selling A Home

As discussed above, a homeowner is required to provide renters or buyers with any available information on lead-based paint or lead-based paint hazards in homes built before 1978. Testing will give you the information that may be requested by potential renters or buyers.

Q: Why Is Testing Recommended For Houses Built Before 1978?

A: Federal regulations placed a limit on the amount of lead in paint sold for residential use starting in 1978. That is why homes built before 1978 are subject to the Disclosure Rule. The older the home, the greater the chance of lead-based paint and lead-based paint hazards, and the more important it is to have the home tested.

Q: What Kind Of Testing Do I Want?

A: Three different approaches for testing lead are available: a lead-based paint inspection, a risk assessment, and a lead hazard screen. A combination inspection and risk assessment may also be done. Selection of the approach depends on why you are testing.

I. Lead-Based Paint Inspection

A lead-based paint *inspection* is a surface-by-surface investigation to determine whether there is lead-based paint in the home and where it is located. An inspection may be particularly useful before renovation, repainting, or paint removal.

An inspection includes:

- An inventory of all painted surfaces, including the outside as well as the inside of the home. 'Painted surfaces' include all surfaces coated with paint, shellac, varnish, stain, coating, or even paint covered by wallpaper.
- Selection and testing of each type of painted surface.

Then you should get a report listing the painted surfaces in the home and whether each painted surface contains lead-based paint.

An inspection does not typically test painted furniture unless it is a permanent part of the home, such as kitchen or bathroom cabinets or built-in bookshelves. Soil, dust, and water are not typically tested during an inspection.

The presence of lead-based paint in a home does not necessarily mean there is a lead-based paint hazard to occupants. To make sure, you may want a different testing approach (either a risk assessment or hazard screen).

Typical Painted Surfaces Tested During Inspection			
Inside The Home		**Outside The Home**	
Baseboards	Heating Units	Chimneys	Mailboxes
Built-In Cabinets	Railings	Door Trim	Porches
Ceilings	Shelves	Fascia, Soffits	Roofing
Chair Rails	Stairs	Fences	Siding
Doors	Walls	Gutters, Downspouts	Stairs
Fireplaces	Windows	Handrails	Sheds
Floors		Lattice Work	Swing Sets

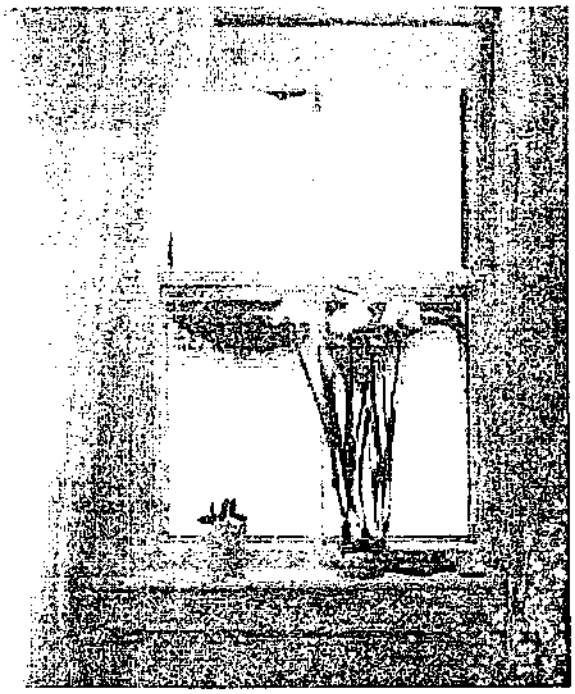
II. Risk Assessment

A *risk assessment* is an on-site investigation to determine the presence, type, severity, and location of lead-based paint hazards. The presence of deteriorated lead-based paint or high levels of lead in dust or soil pose potential hazards to children who may ingest lead inside or playing outside.

A risk assessment includes:

- A visual inspection of the residence to determine the location of deteriorated paint, the extent and causes of the deterioration, and other factors that may cause lead exposure to young children inside or outside the home.
- Testing deteriorated paint and paint on surfaces where there is reason to believe (from teeth marks or from reports of a parent) that a child has chewed, licked, or mouthed the paint. Painted surfaces in good condition are not tested.
- Testing household dust from floors and windows. Samples should include areas from a child's bedroom, a child's main play area, the main entrance, and other locations to be chosen by the certified Risk Assessor.
- Testing bare soil from play areas, the building foundation, and possibly other areas around the home.
- Optional water testing.

Finally, you should get a report identifying the location of the types of lead-based paint hazards and ways to control them. Because not all paint is tested, a risk assessment cannot conclude that there is no lead-based paint in the home.



An important point is that a risk assessment identifies current lead-based paint hazards. New hazards may arise if lead-based paint is disturbed, damaged, or deteriorates.

If you want to know which painted surfaces contain lead-based paint and whether any lead-based hazards are present, you will need a combination inspection and risk assessment.

III. Lead Hazard Screen

A *lead hazard screen* is a limited version of a risk assessment for houses with a low chance of lead risks.

In a lead hazard screen:

- Any painted surfaces in a deteriorated condition are tested.
- Two sets of dust samples are collected in a lead hazard screen. One set represents the floors and the other set represents the windows. Typically, there is less dust sampling in a lead hazard screen than in a risk assessment.
- Usually soil samples are not collected in a lead hazard screen, with one exception. If there is evidence of paint chips in the soil from previous exterior repainting, then the soil should be sampled and tested.

The outcome of the lead hazard screen is either a conclusion that lead-based paint hazards are probably not present or a recommendation that a full risk assessment be conducted to determine if such hazards are present.

In a lead hazard screen, only deteriorated paint is tested. Thus, a lead hazard screen cannot conclude there is no lead-based paint in the home.

A lead hazard screen is only recommended for residences that are generally in good condition, with little visible dust, and with paint in good condition (very little chipping or flaking). If not, the screen is likely to be a waste of time and money. In general, a lead hazard screen will be more useful in housing built after 1960.

As with a risk assessment, a lead hazard screen identifies current lead-based paint hazards. If there is lead-based paint in the home, new hazards may arise if that paint is disturbed, damaged, or deteriorates.

Q: Who Can Do Lead Testing For Me?

A: It is strongly recommended that testing be performed by a certified Inspector or certified Risk Assessor.

- Certified Inspectors can perform only lead-based paint inspections.
- Certified Risk Assessors can perform both risk assessments and lead hazard screens.

Your state may define the titles for lead-based paint professionals and the types of testing they can perform differently from what this brochure says. You can find out by calling NLIC at **1-800-424-LEAD**.

What Will The Testing Report Tell Me?

That will depend on which approach has been used: inspection, risk assessment, or lead hazard screen. Request a sample report before the testing is done so that you may see what information will be provided and how it will be presented. You should also request that actual lead values (not just 'positive' or 'negative' classifications) be provided in the report as evidence that the testing was actually done.

I. Inspection Report

If you have an inspection done, you should receive a report that tells you which painted surfaces were tested and the test results for each surface. An inspection report will not tell you the condition of the lead-based paint or whether lead-based paint hazards exist.

II. Risk Assessment Report

If you have a risk assessment done, you will receive a report that tells you whether there are any lead-based paint hazards and recommends ways to reduce or control any hazards present.

The certified Risk Assessor will take into account the test results and the results of the visual inspection to decide if there are any lead-based paint hazards and how to control them. Lead-based paint hazards identified include lead-based paint in deteriorated condition or on surfaces mouthed by a child. In addition, house dust or bare soil with hazardous lead levels will be identified.

The certified Risk Assessor will provide a list of options for controlling each hazard. Options may include both interim controls and abatement.

- *Interim Controls* – These are short-term or temporary actions. Examples include recommendations to repair deteriorated surfaces that contain lead-based paint, to clean house dust more frequently, or to plant grass or shrubs in areas with bare soil.

- *Abatement* – These are long-term or permanent actions. Examples include replacing old windows, building a new wall over an existing one, or removing soil.

The certified Risk Assessor will also identify the probable source of the paint deterioration and determine whether other repairs are warranted. For example, a water leak may need to be repaired to prevent further damage to the paint.

III. Hazard Screen Report

If you have a lead hazard screen done, the report tells you either that there are probably no lead-based paint hazards in the house or that full-scale risk assessment is needed.

Do I Have To Do Anything After The Testing Is Completed?

There is no EPA requirement for you to do anything to any lead-based paint or lead-based paint hazards found when testing your home. However, if your home was built before 1978, you will be required to provide the test results to any renter or buyer when you lease or sell the home. For more information on the responsibilities of sellers, landlords and their agents, contact NLIC at **1-800-424-LEAD** or visit **http://www.epa.gov/lead**.

Be aware that there may be state or other requirements for action based on the test results. You can call NLIC at **1-800-424-LEAD** for information about what is required in your locality before you start testing.

Q: May I Abate Lead-Based Paint Hazards In My Own Home?

A: If you decide to abate lead-based paint hazards in your own home, it is not recommended that you do the work yourself. Abatement activities must be done following careful procedures to prevent contamination of the home with lead dust. To be safe, hire a certified lead-based paint contractor (a certified professional who can do lead-based paint related abatement). Dust samples should be collected to check the thoroughness of the work.

Be aware that you must be certified yourself or you must hire a certified lead-based paint professional in the following cases: 1) if a child with a blood-lead level of 20 μg/dL* or higher for a single venous test (or 15–19 μg/dL in two consecutive tests taken 3 to 4 months apart) lives in the house or 2) you own the house and rent it to someone else.

If you hire a firm to do testing for lead-based paint hazards, note that you are not under any obligation to hire the same firm to do the abatement. In fact, it would be better to have one firm conduct all testing and another firm conduct the abatement work. That will prevent a conflict of interest.

Be sure to maintain a record of the work to help during any future sale or rental of the home.

*Pronounced micrograms of lead per deciliter of blood.

Section 2

Specific Questions About Testing Paint, Dust, And Soil

Q: Are All Painted Surfaces In The Home Tested?

A: Not every single painted surface in the home will be tested in an inspection, but all types of painted surfaces are tested. For example, a room may have three windows, all painted the same color and all made out of wood. The certified Inspector may not test all three windows, because they appear to be the same.

In a similar fashion, the certified Inspector will go through every room and test the different types of painted surfaces in the rooms. Painted surfaces on the outside of the home, detached structures (such as garages), and items like painted fences and swing sets should also be tested.

Inspections differ from risk assessments and lead hazard screens. In a risk assessment, only deteriorated paint and paint that has been mouthed or chewed by a child will be tested. In a lead hazard screen, only deteriorated paint is tested.

Q: How Are Painted Surfaces Tested?

A: There are currently two methods recognized by EPA for testing paint: portable X-Ray Fluorescence (XRF) analyzers and paint chip sampling followed by analysis by a laboratory recognized by EPA's National Lead Laboratory Accreditation Program (NLLAP).

I. Portable X-Ray Fluorescence Analyzers (XRFs)

A portable XRF measures lead in paint, generally without damaging the paint. However, readings from some XRFs are affected by the base material (known as the "substrate") underneath the paint, such as wood, plaster, or metal. For these cases, the certified Inspector removes paint from a few surfaces of each type and takes a measurement on the unpainted surface. These measurements provide a baseline to adjust the lead in paint value. This procedure may do some paint damage. Also, for curved surfaces or very deteriorated paint, XRF analyzers may not read accurately and a paint chip sample may be required.

When a certified lead-based paint professional follows good testing practices,

XRF analyzers provide a fast and reliable method for classifying many painted surfaces. However, some XRF test results may be inconclusive (neither positive nor negative). Then laboratory testing of a paint chip sample may be necessary.

Because the XRF analyzer uses a radiation source to detect lead, occupants in the household should be asked to stay out of rooms behind the surfaces being tested.

II. Paint Chip Sampling And Laboratory Analysis

Paint chip samples are collected for laboratory analysis by removing one to four square inches of paint from the surface. All layers of paint in the sampled area are included in the sample. Usually samples will contain some of the material beneath the paint, such as wood, plaster, or concrete particles. The amount of this material will be kept to a minimum.

Tools such as chisels and scrapers are used to remove the paint. Sometimes a heat gun is used to soften the paint and make the removal easier. If so, a respirator should be worn by the person operating the heat gun for protection from lead and other fumes. In addition, the room or area should be well ventilated to protect occupants.

After collecting the paint chip sample, the certified lead-based paint professional will repair the scraped area so that adjacent paint will not peel or flake off. Any paint chips or dust from the sampling should be cleaned up by the certified lead-based paint professional to ensure no lead dust is left behind.

Paint chip samples should be analyzed for lead by a laboratory recognized by EPA's NLLAP as proficient for testing lead in paint. EPA has established the NLLAP to ensure that laboratory analyses are done accurately. A laboratory on the list is recognized as proficient for testing for lead in whichever of the three sample types (paint, dust, or soil) the laboratory has qualified. The certified Inspector and certified Risk Assessor must ensure that any paint chip samples from your home are analyzed by a laboratory on the NLLAP list for paint. This publication addresses federal regulations and guidelines. Your state may have its own lead program and different regulations. For more information, contact NLIC at **1-800-424-LEAD** or visit **http://www.epa.gov/lead**.

While paint chip sampling followed by laboratory analysis is generally more accurate than XRF testing, sampling and analysis take longer to complete and paint chips must be scraped from many surfaces in the home. In some cases, a surface may be curved or so deteriorated that an XRF cannot be used properly and sampling may be the only way to test the paint.

Q: What Do The Results Of Paint Testing Mean?

A: A certified lead-based paint professional will use guidance specific for each type of XRF analyzer to determine whether a measurement indicates that:

- Lead-based paint is present,
- Lead-based paint is not present, or
- The measurement is inconclusive and a laboratory test is necessary.

The guidance ensures the XRF measurement classifies paint as lead-based when there is 1.0 milligram of lead per square centimeter of painted surface or greater (1.0 mg/cm^2). An XRF analyzer typically reads in mg/cm^2, meaning milligrams per square centimeter.

When the paint chip sampling followed by laboratory analysis method is used, the federal definition of lead-based paint is dependent on how the results are reported.

- If the laboratory report is expressed as weight of lead per weight of paint chip, the federal definition of lead-based paint is 0.5 percent lead (0.5%). This is mathematically the same as 5,000 milligrams of lead per kilogram of

Federal Definition Of Lead-Based Paint Depends On How Test Results Are Reported	
How Test Results Are Reported	**Federal Definition Of Lead-Based Paint**
If results are reported as percent (or equivalent)	Then, in order for it to be considered lead-based paint, the paint must have greater than or equal to 0.5% (which is the same as 5,000 µg/g or 5,000 mg/kg or 5,000 ppm) lead
If results are reported as milligrams per square centimeter	Then, in order for it to be considered lead-based paint, the paint must have greater than or equal to 1 mg/cm² lead

paint chip (5,000 mg/kg), or 5,000 micrograms of lead per gram of paint chip (5,000 µg/g), or 5,000 parts per million lead (5,000 ppm).

- If the laboratory report is expressed as a weight of lead per unit area of painted surface, the federal definition of lead-based paint is 1.0 mg/cm² (the same as for XRF analysis).

It is possible to report laboratory results in both types of units, but this is rarely done because of the additional time and work required.

Unfortunately, there is no universal definition of lead-based paint. Some state and local governments have definitions of lead-based paint which differ from those in federal law. It is recommended that when there is a conflict between the federal definition and a state or local definition, the more stringent standard (that is, the lower number) be used to define lead-based paint. A certified lead-based paint professional (certified Inspector or certified Risk Assessor) will be aware of and will follow the appropriate standard.

Q: What If No Lead-Based Paint Is Found In My Home?

A: Lead can still be present in paint which is not classified as "lead-based." This would occur when the paint has a lower amount of lead than the federal government regulates. If lead is present in the paint, lead dust can be released when the paint deteriorates, or is disturbed during remodeling, renovation,

sanding, or some maintenance work that breaks the surface of the paint. This is especially important in homes built before 1978. Since the amount of lead in paint was limited by federal regulation in 1978, lead exposure during remodeling and renovation is not as much a concern in newer homes. So you should be careful when there is work that involves extensive breaking of painted surfaces in a home built before 1978. Make sure any dust and debris created by breaking painted surfaces are thoroughly cleaned up, painted surfaces are repaired and left intact when the work is done, and children stay away from the work areas until all repairs and clean-up are completed.

The EPA brochure *Reducing Lead Hazards When Remodeling Your Home* provides guidelines for renovating and remodeling your home. See page 16 for more information on how to order the brochure.

How Are Dust Samples Collected And Analyzed?

The most common method for dust collection is a surface wipe sample. Most certified Risk Assessors will use baby wipes or wet wipes to collect dust.

If dust is collected from a floor, an area of one square foot is usually sampled. The area is wiped several times in different directions to pick up all the dust. After sampling, the wipe is placed in a container and sent to a laboratory for analysis. The certified Risk Assessor will also collect wipe samples from windows and measure the surface area wiped.

In some situations, special types of vacuum samplers may be used for dust collection. These are different from home vacuum cleaners, although some may look the same.

The certified lead-based paint professional must send dust samples to a laboratory recognized by EPA's NLLAP that is proficient for dust analysis. This publication addresses federal regulations and guidelines. Your state may have its own lead program and different regulations. For more information, contact NLIC at **1-800-424-LEAD** or visit **http://www.epa.gov/lead**.

What Do The Results Of Dust Sampling Mean?

Dust sample results are usually expressed as a weight of lead per unit area of surface. The units will usually be micrograms of lead per square foot. For example, a floor wipe sample may be expressed as 50 micrograms of lead per square foot. This is written as 50 $\mu g/ft^2$. The certified lead-based paint professional will provide guidance in interpreting the results of the dust testing.

How Are Soil Samples Collected And Analyzed?

Soil samples are collected from bare soil areas (soil with no grass or other covering) near your home where children play and from bare soil areas near the house foundation or dripline. Optional sampling areas are gardens, pathways, and pet sleeping areas. Samples are collected by coring or scooping methods that take the top half-inch of soil. Samples of non-bare soil may sometimes be collected.

Soil samples must be sent to a laboratory recognized by EPA's NLLAP that is proficient in soil analysis. This publication addresses federal regulations and guidelines. Your state may have its own lead program and different regulations. For more information, contact NLIC at **1-800-424-LEAD** or visit **http://www.epa.gov/lead**.

What Do The Results Of Soil Testing Mean?

Results of soil samples are expressed as a weight of lead per unit weight of soil, usually in parts per million. For example, a soil sample result may be 300 parts per million. This is written 300 ppm. The certified lead-based paint professional will help you interpret the results of the soil testing.

What Are Composite Samples?

Composite samples are combinations of individual samples analyzed together in a laboratory to obtain a single average result. Both dust and soil samples may be composited. For example, a floor dust sample may be collected in each of three rooms and combined to obtain one composite dust sample to be analyzed by the laboratory. Or four soil samples taken in a play area may be combined to obtain one composite soil sample. Paint samples may also be composited, but this is not as common as compositing dust and soil samples.

Composite samples may often be used in risk assessments and lead hazard screens to reduce the cost of laboratory analysis or to increase the representativeness of a single sample. The disadvantage of composite samples is that information is not available for each room (or location) from which samples were collected.

The certified Risk Assessor will interpret composite sample results, if any. The advantage of composite samples is that information is obtained at reduced cost or more samples are collected for the same cost.

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Section 3
Miscellaneous Questions Frequently Asked About Testing

Q: What Are Home Test Kits?

A: Home test kits are used in the home to detect lead in paint, soil, and dust (and, in some cases, water, dishware, glasses, and ceramics). A reaction occurs causing a color change when chemicals in the kit are exposed to lead.

Q: Does EPA Recommend Test Kits For Paint, Dust, Or Soil Testing?

A: No. EPA does not currently recommend home test kits to detect lead in paint, dust, or soil. Studies show that these kits are not reliable enough to tell the difference between high and low levels of lead. At this time, the kits are not recommended for testing performed by either homeowners or certified lead-based paint professionals.

Q: May I Collect Paint, Dust, And Soil Samples Myself And Send Them To A Laboratory?

A: You may do this, although your samples may not be of the same quality as those collected by a certified lead-based paint professional. If you want to collect samples yourself, it is recommended that you send paint, dust, or soil samples to a laboratory recognized by EPA's NLLAP. A list of NLLAP laboratories is available from NLIC by calling **1-800-424-LEAD**. If the samples contain high levels of lead, you should have a certified lead-based paint professional do a risk assessment of your home.

Q: What About Testing For Lead In Water?

A: Lead pipes and lead solder were once used in plumbing and lead leaked into drinking water. Water testing is not routinely conducted by certified lead-based paint testing professionals, but you may ask for it as an optional service. If you

would like information about testing for lead in water, call the EPA Drinking Water Hotline at **1-800-426-4791**.

What About Testing For Lead In Furniture, Dishware, And Mini-Blinds?

Lead may be present in the paint on furniture. If the furniture is old or the paint is damaged, you may want to have it tested. A certified Inspector or certified Risk Assessor may do this testing for you.

Lead may also be present in some glassware (for example, lead crystal) and in glazes found on ceramic ware. The lead may be absorbed into the drink and food stored in these items.

Contact NLIC at **1-800-424-LEAD** or the Food and Drug Administration (FDA) Food Information Line at **1-800-FDA-4010** for information on testing glassware and ceramics or access the FDA webpage at **http://vm.cfsan.fda.gov/~dms/lead.html#advice**.

The Consumer Product Safety Commission (CPSC) has issued a warning that some mini-blinds may contain lead. For further information, contact the CPSC hotline at **1-800-638-2772** or access the CPSC webpage at **http://www.cpsc.gov/cpscpub/prerel/prhtml96/96150.html**.

Contacts For Further Information:

Topic	Agency	Contact Information
Testing ceramic ware and related items	Food and Drug Administration (FDA) Food Information Line	1-800-FDA-4010 http://vm.cfsan.fda.gov/~dms/lead.html#advice
Information on lead in mini-blinds	Consumer Product Safety Commission (CPSC)	1-800-638-2772 http://www.cpsc.gov/cpscpub/prerel/prhtml96/96150.html
State lead programs and regulations, Current list of NLLAP laboratories, Lead brochures and fact sheets, General lead hazard information	National Lead Information Center (NLIC)	1-800-424-LEAD OR for the hearing impaired 1-800-877-8339 http://www.epa.gov/lead/nlic.htm
EPA and HUD related web sites	Environmental Protection Agency Housing and Urban Development	http://www.epa.gov/lead http://www.hud.gov/lea
Information on testing drinking water for lead	EPA Drinking Water Hotline	1-800-426-4791
Information on state and territory lead professional and contractor certification and licensing	EPA Regional Offices	
	Region 1 CT, ME, MA, NH, RI, VT	1-617-918-1524
	Region 2 NJ, NY, PR, VI	1-732-321-6671
	Region 3 DE, DC, MD, PA, VA, WV	1-215-814-2084
	Region 4 AL, FL, GA, KY, MS, NC, SC, TN	1-404-562-8998
	Region 5 IL, IN, MI, MN, OH, WI	1-312-886-7836
	Region 6 AR, LA, NM, OK, TX	1-214-665-7577
	Region 7 IA, KS, MO, NE	1-913-551-7518
	Region 8 CO, MT, ND, SD, UT, WY	1-303-312-6021
	Region 9 AS, AZ, CA, GU, HI, NV, NP	1-415-744-1069
	Region 10 AK, ID, OR, WA	1-206-553-1985

Additional Reading:

These brochures and fact sheets can be obtained by calling NLIC at **1-800-424-LEAD** or visiting **http://www.epa.gov/lead**.

Buying A Home? Here's What You Need To Know About Lead-Based Paint, EPA brochure, EPA publication number EPA 747-F-99-001 (January 2000).

Lead In Your Home: A Parent's Reference Guide, EPA brochure, EPA publication number EPA 747-B-99-003 (May 1999).

Protect Your Family From Lead In Your Home, EPA/CPSC/HUD brochure, EPA publication number EPA 747-K-99-001 (April 1999).

Reducing Lead Hazards When Remodeling Your Home, EPA brochure, EPA publication number EPA 747-K-97-001 (September 1997).

Runs Better Unleaded: How to Protect Your Children from Lead Poisoning, EPA brochure, EPA publication number EPA 747-F-99-005A (August 1999).

Selecting a Laboratory for Lead Analysis: The EPA National Lead Laboratory Accreditation Program, EPA brochure, EPA publication number EPA 747-F-99-002 (April 1999).

The Lead-Based Paint Pre-Renovation Education Rule, EPA handbook, EPA publication number EPA 747-B-99-004 (September 1999).

Disclosure of Lead-Based Paint Hazards in Housing, EPA/HUD fact sheet, EPA publication number EPA 747-F-96-002 (March 1996).

EPA
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Environmental Protection Agency
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Temporary Ways to Keep Children Safe from Lead Paint Hazards

Under the Lead Law, the property owner is responsible for having his or her home deleaded or brought under interim control if it was built before 1978 and a child under the age of six lives there. Deleading permanently reduces the risk of lead poisoning. Until deleading occurs, here are some temporary ways to reduce lead hazards:

1 **Clean often**
Wet wiping regularly reduces lead dust levels in the home. See other side.

2 **Put duct tape or contact paper over peeling paint and plaster**
Put duct tape or contact paper on window wells, window sills, walls or other surfaces with peeling paint or plaster. Clean these areas often. Window wells and sills can be cleaned more easily when contact paper or duct tape are put down first. See other side.

3 **Keep the lower part of the window closed (if possible)**
If a window well is in bad condition, keep the lower part of the window closed and open only the upper part. This will prevent your children from putting their hands or objects in the window well where the lead dust collects. It also helps keep lead dust from blowing into the house.

4 **Move furniture to block contact with peeling paint and plaster**
By moving a sofa in front of a crack in a wall, you can block a child's access to lead hazards. Never place furniture where a child may climb on it and fall out of a window.

5 **Change child's bedroom (if possible)**
If your child's bedroom has chipping paint or plaster, consider using another room without chipping paint for the bedroom.

6 **Other ideas**
Regularly have your child tested for lead poisoning; wash your child's hands and toys often; if you are renovating or repainting call CLPPP for more information on how to do the work safely before you begin; feed your child food high in iron, calcium, and vitamin C and low in fat.

Lead poisoning and your child's health
Lead paint is the most common cause of childhood lead poisoning. When old paint cracks or peels, or when lead-painted surfaces rub against each other or are bumped, lead paint dust or chips are created. Children typically become poisoned by putting their fingers which have touched lead dust into their mouths. Lead poisoning can cause lasting damage to children's brains, kidneys, and nervous systems. Even lower levels of lead can slow children's development and cause learning and behavioral problems. Children under age six are at greatest risk.

Keep your child safe
Remember, these are only temporary ways to reduce the risk of lead poisoning from lead paint hazards. The only permanent way to reduce the risk of lead poisoning is to have the home deleaded. The owner of a home built before 1978 is responsible for having it deleaded or brought under interim control when a child under the age of six lives there.

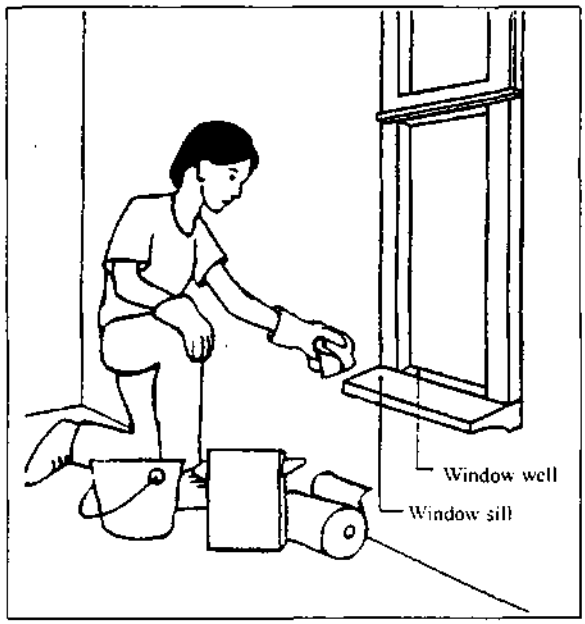
FOR MORE INFORMATION, CONTACT:
Massachusetts Department of Public Health
Childhood Lead Poisoning Prevention Program
56 Roland Street, Boston, MA 02129
800-532-9571 (toll free)
www.state.ma.us/dph/clppp

or your local lead program at:

Temporarily Reducing Lead Paint Hazards by Cleaning

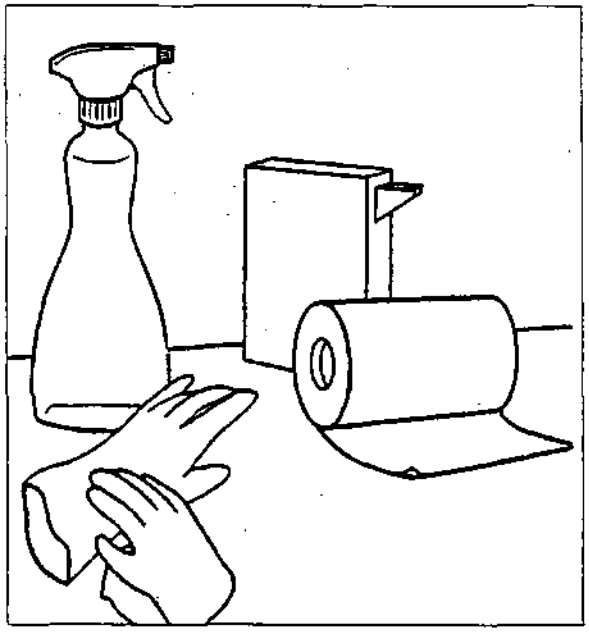
1. **Wear plastic gloves to clean**
   Protect yourself from exposure to lead.

2. **Pick up all chips by hand or use a damp paper towel**
   Window areas often have lots of paint chips)
   Seal chips and paper towels in a plastic bag and throw out.
   Do not use a household vacuum or broom to clean up lead paint chips or dust!



3. **Wash household surfaces**
   - Use TSP, a lead-specific detergent, or any all-purpose, non-abrasive cleaner.
   - Scrub well for best results. (Don't scrub hard enough to remove the intact paint.)
   - Clean window wells, window sills, play areas, and floors at least once or twice a week.
   - Keep children away when cleaning.
   - Keep all cleaners safely away from children.

4. **Use a spray bottle to keep dust levels down**
   - Use a cleaner already in a spray bottle, or put the cleaner into a spray bottle.
   - If you must use a bucket, keep the wash water clean. Never put dirty paper towels into the wash water.



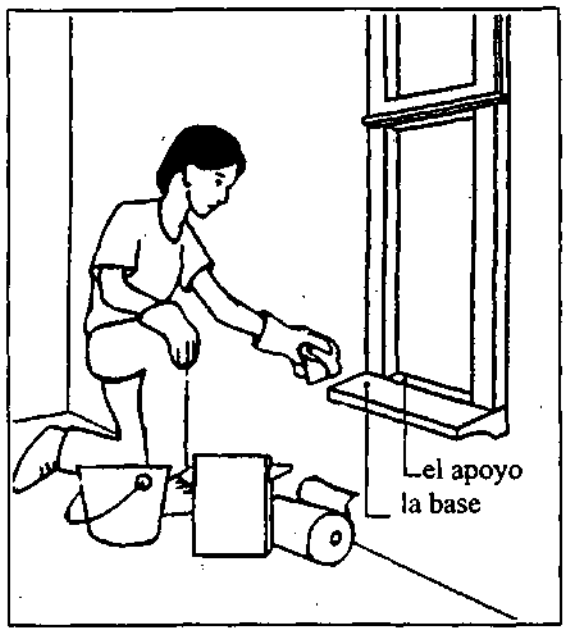
5. **Use paper towels**
   - Don't use dish cloths or sponges to clean.
   - Use a new paper towel to clean each area.
   - Seal the used paper towels and gloves in a plastic bag and throw them out.

6. **Rinse after cleaning**
   - Use clean water and paper towels for rinsing each area.

7. **Clean up properly**
   - Wash your hands when cleaning is done.
   - Pour any wash and rinse water down the toilet, not the sink.

IMPORTANT! Do not use a household vacuum or broom to clean up lead paint chips or dust. This could spread the lead dust into the air and into your vacuum cleaner or broom.

MÉTODOS PROVISORIOS DE REDUCIR LOS PELIGROS DE LA PINTURA CON PLOMO MEDIANTE LA LIMPIEZA

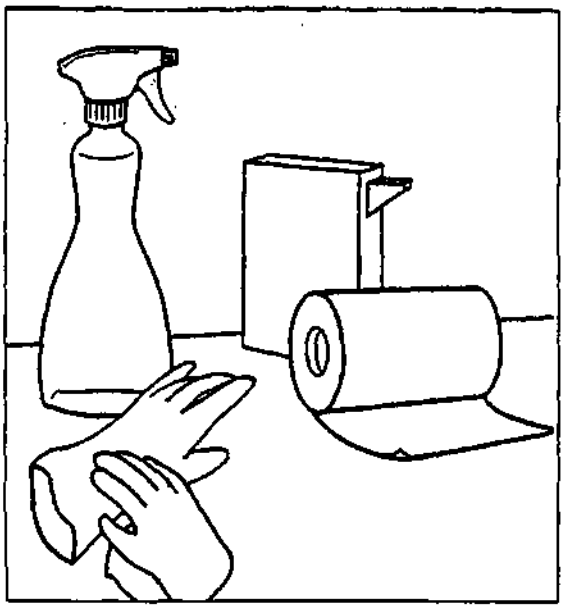


1. **Use guantes de plástico para limpiar**
   Protéjase evitando el contacto con plomo.

2. **Recoja todas las cascaritas con la mano o use una toalla de papel humedecida (las áreas de las ventanas suelen tener muchas cascaritas de pintura)**
   - Guarde las cascaritas de pintura y las toallas de papel en una bolsa plástica bien cerrada y bótela.
   ¡No use aspiradora de hogar ni escoba para limpiar las cascaritas o el polvo de la pintura con plomo!

3. **Limpie las superficies del hogar**
   - Use TSP, un detergente específico para el plomo, o cualquier agente de limpieza para usos múltiples no abrasivo.
   - Limpie bien para mejores resultados (pero no frote con una fuerza que pueda hacer que se desprenda la pintura que está intacta)
   - Limpie la base y el apoyo de las ventanas, los lugares de juego y los pisos por lo menos una o dos veces por semana.
   - Mantenga a los niños alejados mientras limpia.
   - Mantenga todos los agentes de limpieza en forma segura, fuera del alcance de los niños.

4. **Use una botella o envase rociador para mantener bajos los niveles de polvo**
   - Use una agente de limpieza que venga en un envase rociador, o transfiera el agente de limpieza a un envase rociador.
   - Si tiene que usar un balde, mantenga agua limpia. Nunca ponga las toallas de papel sucias de vuelta en el agua de limpieza.



5. **Use toallas de papel**
   - No use paños o esponjas de lavar platos para limpiar.
   - Use una toalla de papel nueva para limpiar cada área.
   - Guarde las toallas de papel usadas y los guantes en una bolsa plástica bien cerrada y bótelos.

6. **Enjuague después de limpiar**
   - Use agua limpia y toallas de papel limpias para enjuagar cada área.

7. **Limpie en forma apropiada**
   - Lávese las manos cuando haya terminado de limpiar
   - Bote el agua usada para la limpieza y el enjuague en el inodoro, no en el lavadero de manos.

¡IMPORTANTE! **No use la aspiradora del hogar ni la escoba para limpiar polvo o cascaritas de pintura con plomo. Esto puede hacer que el polvo con plomo de disperse por el aire y se meta en su aspiradora o escoba.**

MÉTODOS PROVISORIOS DE PROTEGER A LOS NIÑOS DE LOS PELIGROS DE ENVENENAMIENTO CON PLOMO

De acuerdo a la ley del plomo, el propietario de la vivienda es responsible de hacer eliminar el plomo de su vivienda o de tomar medidas provisorias de control interno, si la vivienda fue construida antes de 1978 y en la misma viven niños menores de seis años de edad. La eliminación permanente de plomo reduce el riesgo de envenenamiento con plomo. Hasta que el plomo sea eliminado en forma permanente, éstos son algunos métodos temporarios de reducir los peligros de envenenamiento con plomo.

1 **Limpie con frecuencia**
La limpieza de superficies con una toalla de papel humedecida reduce los niveles de polvo con plomo en el hogar. Vea al otro lado de la página.

2 **Cubra con cinta adhesiva ("duct tape") o con papel adhesivo ("contact paper") la base o el apoyo de las ventanas, las paredes o cualquier otra superficie donde haya pintura o yeso que se está pelando**
Limpie estas áreas con frecuencia. La base o el apoyo de las ventanas pueden ser limpiados más fácilmente cuando se las cubre primero con cinta adhesiva o papel adhesivo. Vea al otro lado de la página.

3 **Mantenga la parte de abajo de la ventana cerrada**
Si el apoyo de la ventana está en malas condiciones, mantenga la parte de abajo de la ventana cerrada y abra solamente la parte de arriba. Al hacerlo evitará que sus niños pongan las manos o otros objetos en el apoyo de la ventana, que es el lugar donde se acumula el polvo con plomo. Esto también ayuda a evitar que el polvo con plomo sea soplado por el viento al interior de su hogar.

4 **Mude los muebles para bloquear el contacto con pintura o yeso que se esté descascarando**
Mudando por ejemplo un sofá en frente a una rajadura en la pared, usted puede bloquear el contacto de un niño con una posible fuente de plomo. Nunca coloque los muebles de manera que los niños se pueden trepar y caer por la ventana.

5 **Cambie el cuarto de los niños (si es posible)**
Si el cuarto de su niño tiene pintura o yeso con plomo que se está descascarando, considere la posibilidad de mudar al niño a otro cuarto donde no exista tal peligro.

6 **Otras ideas**
Pida que se la haga la prueba del plomo con frecuencia a su niño; lave las manos y los jugetes del niño con frecuencia: si está por renovar o volver a pintar su hogar, antes de comenzar llame al Programa de Prevención del Envenenamiento Infantil con Plomo para pedir información sobre cómo hacer el trabajo en forma segura; alimente a su niño con comidas que tengan un nivel alto de hierro, calcio y vitamina C y que sean bajas en grasas.

El envenenamiento con plomo y la salud de su niño
La pintura con plomo es la causa más común del envenenamiento infantil con plomo. Cuando la pintura vieja se raja o pela, o cuando los superficios pintados con pintura con plomo se rozan o golpean, se forma polvo o cascaritas de pintura con plomo. La manera mas común en que los niños se envenenan es al llevarse a la boca los dedos que han tocado el polvo con plomo. El envenenamiento con plomo puede causar daño prolongado al cerebro, los riñones y el sistema nervioso de los niños. Aún los niveles bajos de plomo pueden retrasar el desarrollo de los niños y causar problemas de aprendizaje y de comportamiento. Los niños menores de seis años son los que corren el riesgo más serio.

Mantenga Seguros a los Niños
Recuerde, éstas son solamente maneras provisorias de reducir el riesgo de envenenamiento con plomo causado por la pintura son plomo. La única manera permanente de reducir el riesgo de envenenamiento con plomo es elimininando el plomo de la vivienda. Los propietarios de viviendas construidas antes de 1978 en las que viven niños menores de seis años de edad son responsables de hacer eliminar el plomo o de tomar medidas provisorias de control interno.

Para más información, póngase en contacto con: o con su programa local del envenenamiento con plomo:

Massachusetts Department of Public Health
Childhood Lead Poisoning Prevention Program
(800) 532-9571 (línea telefónica gratuita)
www.state.ma.us/dph/clppp

Keep
Your
Children
Safe From
Lead!

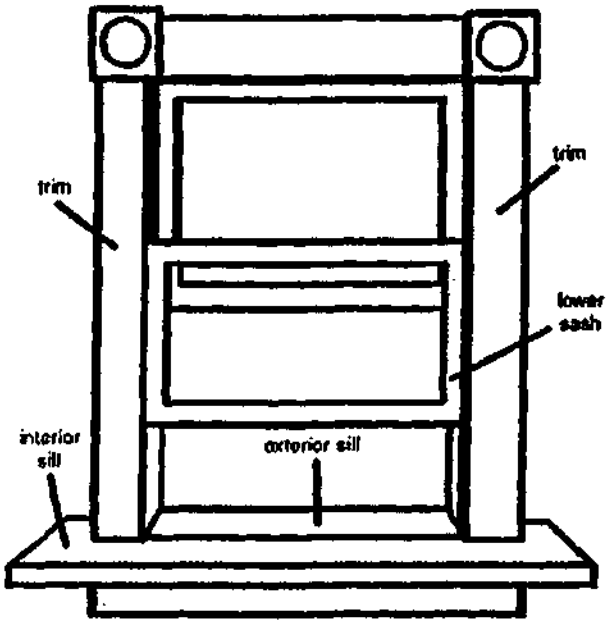
How to Clean Your Windows the Right Way

In Milwaukee, windows have been found to be major sources of lead paint chips and lead dust in your children's environment. If they are exposed to these, your children could be lead poisoned. Cleaning your windows the right way can reduce these lead hazards and keep your children safe.

Note:
Please don't do this yourself if you are pregnant, and please don't have small children do this job.

Here's how:

1. **Raise the lower sash** of each window. Secure the lower sash if needed. You have just exposed the exterior sill, the lower flat portion of the window frame as shown in the picture.
2. **Remove and wash any toys** found in windows with soapy water.
3. **Use wet paper towels or rags to remove paint chips and dirt** from the exterior sill of each window. Dispose of the rags/paper towels in a heavy duty trash bag.
4. **Clean out all remaining dirt, paint chips, and debris** from all exterior sills. Use a bucket full of water and wet paper towels or clean rags. (Soap and water works best, but you can use plain water, too.) Repeat this process until the area is clean. Throw the dirty paper towels and rags into the trash bag.
5. **Wipe down the trim and interior sill** of each window, using clean rags or paper towels and water. (These are the decorative portions of the window that face the inside of your house, as shown in the picture.) Do this from top to bottom. Dispose of these dirty towels or rags in the trash bag.
6. **Flush the dirty water down the toilet** when you are finished cleaning.



7. **Repeat this procedure every two weeks.** It may be necessary to do this more often in warm weather, or at windows where your children spend most of their time.
8. **When finished, wash your hands** thoroughly with soap and water.

Produced by the City of Milwaukee Health Department with funds from the Centers for Disease Control

The City of Milwaukee Health Department does not discriminate on the basis of race, color, national origin, or disability. Persons needing disability assistance information, call 286-0616 or (TDD) 286-2025

Visit the Health Department's Lead Program at the City's web site, www.ci.mil.wi.us/citygov/health/index.htm

CITY OF MILWAUKEE
CHILDHOOD LEAD POISONING PREVENTION
225-LEAD
HEALTH DEPARTMENT

Como Limpiar Las Ventanas Correctamente

En Milwaukee se ha descubierto que las ventanas con pintura a base de plomo son la mayor fuente de envenenamiento. Las ventanas forman polvo y fragmentos de pintura en el ambiente de sus hijos. Si sus hijos son expuestos al plomo, estos pueden ser envenenados. Limpiar sus ventanas correctamente reducirá los riesgos que el plomo acarrea y así protejer a sus niños.

Nota:
Por favor no haga esta limpieza si usted está embarazada, y por favor retire los niños pequeños cuando haga esta limpieza.

Lea Como:

1. **Abra el marco de la ventana inferior** de cada ventana. Asegure el marco inferior si es necesario. Al abrir la venatana, usted ha expuesto el antepecho exterior, la porción inferior plana de la ventana como se muestra en la figura.

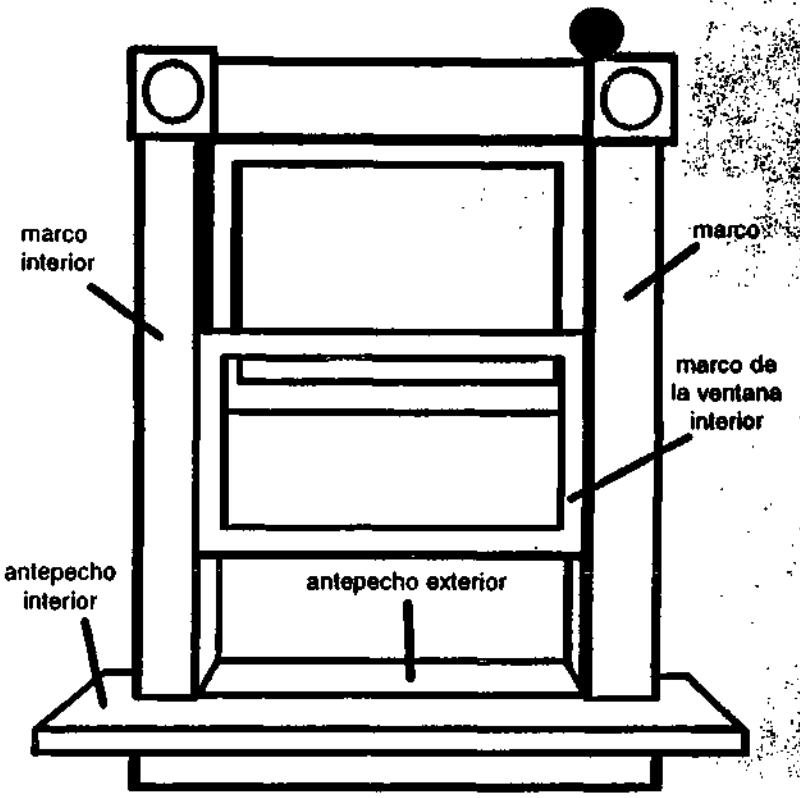
2. **Remueva y lave todos los juguetes** encontrados en la venatana con agua y jabón.

3. **Use toallas de papel o de tela humedecidas con agua para remover los fragmentos de pintura y el polvo** de el antepecho exterior de cada ventana. Deseche los trapos en una bolsa de basura de plástico fuerte.

4. **Limpie el resto de el polvo, cáscara de pintura y residuos** de el antepecho exterior. Use un cubo con agua y toallas de papel o trapos limpios. (Jabón y agua trabaja mejor que el agua sola, pero el agua sola también hace el trabajo.) Repita éste proceso hasta que el área esté completamente limpio. Deseche los trapos usados en la bolsa de basura.

5. **Limpie el marco y el antepecho interior** de cada ventana con toallas de papel o trapos y agua. (Estas son las partes decorativas de la ventana que se encuentran en la parte interior de su casa; vea la figura.) Haga esto de arriba hacia abajo. Deseche todas las toallas y trapos sucios en la bolsa de basura.

Visit the Health Department's Lead Program at the City's web site:
www.ci.mil.wi.us/citygov/health/index.htm



6. **Bote el agua en la poceta** cuando haya terminado de limpiar.

7. **Repita este proceso cada dos semanas.** Pueda que sea necesario hacerlo más a menudo en aquellas ventanas donde sus hijos pasen la mayoría de su tiempo y en el verano.

8. **Al terminar, lave sus manos** con agua y jabón.

Produced by the City of Milwaukee Health Department with funds from a Federal Housing and Urban Development Grant (HUD).

The City of Milwaukee Health Department does not discriminate on the basis of race, color, national origin, or disability. Persons needing disability assistance information, call 286-3521 or (TDD) 286-2025.

health graphics Keep kids safe from lead (sp) 2/00

APPENDIX D

PROMOTORA TRAINING CURRICULA AND TOOL KIT – DRAFT OUTLINE

TITLE **TAB**

PROMOTORA TRAINING CURRICULA AND TOOL KIT – DRAFT OUTLINE ..... D

APPENDIX D

PROMOTORA TRAINING CURRICULA AND TOOL KIT – Draft Outline

APPENDIX D

OUTLINE

Promotora Curricula – Training Manual and Toolkit

A proposed outline follows for the Promotora Training Manual and Toolkit that will be developed for the CHP. The manual will focus on a description of a) promotora activities, duties, and compensation, b) promotora training, and c) the promotora Toolkit and materials to be used during outreach efforts.

a) Purpose of Manual
   - Project Description
   - What is a Promotora/ Lay Health Advisor?
   - Characteristics
   - Who can be a promotora/ lay health advisor?
   - Expectations
     - Role of promotora
     - Listening
     - Duties (attend training, share knowledge, document activities, attend meetings, communicate)
     - Promotora agreements
     - Record-keeping
     - Stipend/Payment
     - Reporting

b) Understanding Lead and Arsenic
   - Lead
     - What is lead?
     - What is lead poisoning?
     - What are the main sources of lead poisoning?
     - How lead gets in the body
     - What are the symptoms?

Importance of testing

Arsenic

Same topics as lead

Prevention

Screening – importance and where offered

Handwashing

Housekeeping

Where children play

Toys and shoes

Nutrition

Site Cleanup and other cleanup activities

Home inspections

Soil Cleanup

Coordination

Lead Paint Resources

Frequently Asked Questions

c) Toolkit and tracking mechanisms

Educational Materials

Other Resources

APPENDIX E

SUPPORTIVE EVALUATION GUIDELINES – EVALUATION TOOL

TITLE **TAB**

SUPPORTIVE EVALUATION GUIDELINES – EVALUATION TOOL ..... E

APPENDIX E

SUPPORTIVE EVALUATION GUIDELINES – Evaluation Tool

APPENDIX E

Supportive Evaluation Guidelines

The goal of most community health worker home visiting programs is for the promotora to develop a relationship with the people she contacts about the issues she is addressing, so evaluation shouldn't be seen as a major effort. The persons to whom we provide education should be aware that part of participating in the program may include participating in the evaluation. Many times just in talking with people about lead poisoning prevention they will let us know where they are in learning about the behaviors we wish to evaluate. Try to keep track of their responses, and then fill out the evaluation form based on what you have heard. At the end of the session you might say something like: "We really want to help people learn about lead hazards, we think that this program where we go door to door might help people, but in order to be sure, we have to evaluate it. It's pretty easy. We know that learning is a process; very few people know and do all of the steps from the beginning. When we learn new things, we do it in stages, sometimes we know nothing about a topic, then we hear about it and start thinking about it, then we start doing it once in a while, then we get better and do it more often, then we do it even more often until we are doing the new behavior all the time.

When they explained about this in training they used the example of learning to use cold water for drinking, cooking and making formula or other drinks. I had no idea that we were supposed to use cold water for these things; I mean my mom taught me to make rice and beans with hot water from the tap and I always used warm water to make the babies' formula. During the training they told us about how lead can move from the pipes into the water, and especially into hot water and that we should let the water run for a minute and then use cold water for cooking or drinking, so after the training I was able to say that I was thinking about using cold water to cook, drink and make formula. I went home and I started doing it once in a while when I remembered. Then I put up the poster they gave us about preventing lead poisoning and I started doing it more often. Now I do it almost all the time. Sometimes when I get up a night to get a drink of water, I still forget or don't want to bother, but most of the time I use cold water for drinking and cooking. Sometimes I even heat up water to use when I cook beans or rice."

"In order to find out if this method works of helping people learn to protect themselves from lead and arsenic, we decided that we would start with something simple, like where are you in the learning process of teaching kids to wash their hands before they eat. We know that almost all parents have tried to teach their kids to wash their hands before they eat, and we mark down that you have your kids wash their hands before they eat most or all of the time. Which answer is right for you?" Next, ask the evaluation question(s) you haven't heard the answer to: "I would like to ask you where you are in the process of learning to...(see evaluation tool) after our discussion about lead and arsenic today. I heard you say earlier that you didn't know until we talked about X behavior that you were supposed to be doing X, is this correct? Thank you so much for talking with me today."

"In order to see if this program has really helped people learn, the supervisors are going to pick names at random and ask people basically the same questions you answered today. We will have a small prize for those who decide to help us see if this program works. Remember these questions will be asked just to see if we need to make changes in the program, not to judge you. Some people don't remember what was talked about at all; some people say that they

only do something once in a while. There is no wrong answer; all the answers help us learn how to help other people. If you have come up with any tips that might help your neighbors and others protect themselves and their families from lead and arsenic, please share them with us. Many times when we call people to find out how they are doing with the lead poisoning prevention behaviors they help us by telling us what has helped them change their behaviors so we can help others. We really appreciate the help and advice that people give us."

"If your name is picked and you decide to help us, we will talk with you for about 10-20 minutes to see how the program is working about 6-8 weeks after our last visit and then again after 6-12 months have passed. We will have a small prize for those who help us by participating in the evaluation. The evaluation is not to judge **you**; we want to see what we can do to make the program better."

This method of evaluation is meant to be supportive of the person being interviewed! The promotoras or DEH staff will conduct the evaluations and will have or will work to develop a relationship with the interviewee. You must consider the interviewee's feelings when doing the evaluation and make them feel as comfortable as possible, both because they are doing the program a favor by letting us evaluate them and also to encourage the interviewee to be honest with us. Our job is not to judge the client's knowledge, learning and behaviors but to find out where the interviewee is in the process of learning and help them learn more (or to allow them to teach us something new!)

A sample script for an evaluation interview using the tool below to record the responses follows. These evaluation interviews need to be tailored to the individual. This is very important, for example what if we ask about hand washing and the child or person has no hands? Special circumstances should be written in the family's notebook. The script and response written below is pretty much what we would expect in a "normal" evaluation interview.

Imagine that you the evaluator are doing an interview with a parent.

Evaluator: Hi, how are you. Do you remember we talked about lead a few weeks or X months ago? I just came by (or called) to see how you are doing with the lead poisoning prevention steps.

Parent: I'm kind of busy right now. Can we talk when I take the kids to the park?

Evaluator: Sure, what time?

Parent: Oh about 1:00.

Evaluator: OK see you at the park at 1:00

At 1:00:

Evaluator: Hi, how's it going? Oh, I remember you have a little boy about my son's age. How is he doing? My son is driving me nuts because he doesn't like to wash his hands, how's it going for your son? If you have any tips about getting kids to wash their hands I would appreciate the help.

Parent: "Oh, he's really good at washing his hands, I have a stool for him to stand on, and he has his own special soap, so he washes his hands all the time before he eats."

Evaluator: How about before he takes a nap or goes to bed? My child gets so sleepy; I have a hard time getting him to wash his hands before he lies down.

Parent: Well, I'm having a hard time with that too. I can get him to do it once in a while.

Evaluator: Well another mom told me that if her little one doesn't wake up enough to wash her hands, she at least wipes them with a wet washcloth or paper towel, so if the child puts her hands on or in her mouth while she sleeps, they are cleaner than before.

Parent: Oh that's a good idea.

Evaluator: When the promotora lady came to talk to us about the lead, before I started working with the program, I didn't know how important it was to clean the window sills every week. I mean I clean my house and everything, but I didn't know about the window sills. What did you think about that?

Parent: I didn't know that either, but now that I know I just wash the window sills when I wash the floors every few days. I am more careful about washing out and rinsing my rags after I clean too.

Evaluator: That's good. I hadn't thought about that before either, I just rinsed them out, before. I'm getting some good advice from you! What about taking your child in for lead testing? Some people have said that they had trouble getting the tests and we wanted to hear about your experiences.

Parent: Well, I didn't have too much of a problem. They had a clinic here at the school in my neighborhood, so I took my kids there. The little one didn't have any problems. They didn't want to test the older kids though and I'm kind of worried about them. My oldest he's twelve now and he still likes to eat dirt. I constantly have to stop him even though he's a big boy.

Evaluator: Umm, did you tell the ladies taking the blood that your older son likes to eat dirt?

Parent: Well no, it's kind of embarrassing and I thought they mainly wanted to know about the little one. It's kind of too late for the oldest anyway.

Evaluator: Well, I don't think it's too late. Kids who eat dirt can get too much arsenic or lead in their bodies and it could cause some health problems later on. There is a clinic at X school this Thursday and at X health fair this weekend. Do you think you can take him in and get him tested?

Parent: Well, I guess I could do that, but he won't like the idea.

Evaluator: How about taking him in for a checkup, you could say it's for school, since they want them to have checkups for school anyway?

Parent: Well, his regular doctor isn't here anymore; they shut the clinic down you know. I don't know where to take him.

Evaluator: It's too bad about the clinics closing, they told us that people who used to go to our local clinic are now being seen at X clinic. I think your child's doctor might be there now. I can check for you if you would like.

Parent: Yes, that would be good. I really liked Dr. X, but if he's not close by anymore, I still have to take the kids in for their checkups at the new place and I can ask the Dr. to test the older kid. Why do you think he eats dirt? Is it just a habit?

Evaluator: I don't know, some times kids or pregnant women who are picky eaters or who don't get enough of certain vitamins or minerals crave dirt, but you should take him in to the doctor to find out for sure what's going on. I'll call you about your favorite doctor tomorrow ok? And then you can make an appointment for your child. Let me know if there is anything I can do to help ok? Would it be ok for me to call and see how it worked to get your older son tested? I want to be sure that they treated you right.

Parent: OK

Evaluator: Thanks for talking with me. Maybe, I'll see you at the health fair.

Then the evaluator fills out the evaluation tool. Later the evaluator makes a copy and gives the original to the promotora to go in the family's notebook.

DRAFT

Evaluation Tool

In the process of protecting my children from lead hazards by...

1. Reminding them to wash their hands before they eat
I know nothing about this (Un-informed)

I have not done it yet (Thinking)

I've done it once or twice (Starting)

I'm doing it more often (Really Trying)

I'm doing it often (Action)

I'm doing it 3+ times a day (Succeeding)

2. Reminding them to wash their hands before they sleep
I know nothing about this (Un-informed)

I have not done it yet (Thinking)

I've done it once or twice (Starting)

I'm doing it more often (Really Trying)

I'm doing it often (Action)

I'm doing it 2+ times a day (Succeeding)

3. Washing the window sills and the children's toys once a week

the window sill

I know nothing about this (Un-informed)

I have not done it yet (Thinking)

I've done it once or twice (Starting)

I'm doing it more often (Really Trying)

I'm doing it often (Action)

I'm doing it 1+ times a week (Succeeding)

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In the process of protecting my children from lead hazards by...

4. Taking them to the doctor for a blood lead test

I know nothing about this (Uninformed)

I have not done it yet (Thinking)

I've done it with my young children (Action)

I'll do it with all my babies (Succeeding)