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EPA's

**Protect Your
Family From
Lead In
Your Home**

and

Keep It Clean:

**An Insider's Guide To
Lead-Safe Painting
And Home
Improvement**



If you are about to undertake a renovation, remodeling or repainting project where old, lead-based paint is present, it is important that you read and understand the information provided in this brochure.

Consumer paint has not contained lead in decades — however anyone working in an older home or building (built before 1978) may encounter old, lead-based paint. While lead-based paint does not present a hazard when intact (i.e. not chipping, peeling, chalking or otherwise disturbed), if you are contemplating a typical renovation and remodeling project know that it can disturb the painted surface and create lead dust. Special attention should be given when you prepare any old painted surface for repainting. **Never use open burning methods, for example, and if you scrape, sand, or remove old paint by any means you may release lead dust or debris. LEAD IS TOXIC and exposure to lead can cause serious illness, such as brain damage, especially in children. Pregnant women should also avoid exposure.**

The National Paint and Coatings Association (NPCA) is providing the following information on (old) lead-based paint hazards and safeguards to use when undertaking renovation, remodeling or repainting projects. The information includes:

“Protect Your Family from Lead in Your Home”

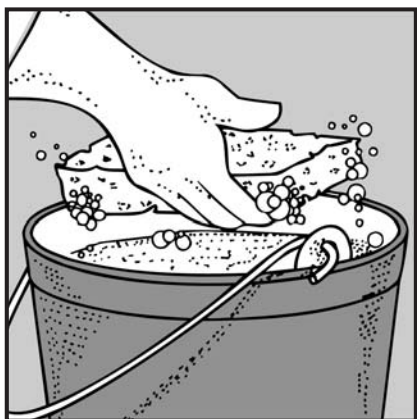
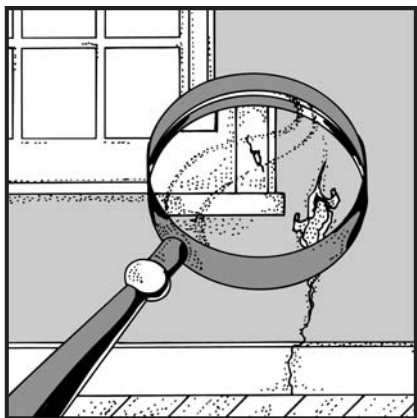
By federal law, this brochure, developed by the U.S. Environmental Protection Agency (EPA), is to be provided to consumers by their renovation and remodeling contractor before beginning work that disturbs painted surfaces in any house or structure built before 1978. Known as the Lead Pre-renovation Education Rule (“Lead PRE”), it is intended to improve consumer and contractor awareness of the need for lead safe work practices. NPCA is providing this (public domain) brochure, reproduced in its entirety in English and Spanish.

“Keep it Clean: An Insider’s Guide to Lead-Safe Painting and Home Improvement”

This brochure, developed by the New England Lead Coordinating Committee and the EPA, is intended to provide useful information on how to minimize the generation of lead dust and clean up the work area properly. NPCA is providing this (public domain) brochure as part of a cooperative agreement with the State Attorneys General (“State AGs”) from over 50 U.S. states and jurisdictions (e.g., D.C., Puerto Rico), reproduced in its entirety in English and Spanish.

For additional guidance, or to get the name of an accredited laboratory to analyze paint or dust samples, contact the EPA’s National Lead Information Hotline at 1-800-424-LEAD or log on to: **www.epa.gov/lead**.

NPCA is a voluntary, non-profit industry trade association that assists its coatings manufacturing members in government relations and technical affairs matters. Distribution of this information is the latest in a series of public information and community service initiatives on avoiding lead hazards. For more information on NPCA activities, in particular its State AGs agreement, please log on to: **http://www.paint.org/ind_info/leadwarning.htm**.



Protect Your Family From Lead In Your Home

 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

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Are You Planning To Buy, Rent, or Renovate a Home Built Before 1978?

Many houses and apartments built before 1978 have paint that contains high levels of 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.



RENOVATORS have to give you this pamphlet before starting work.

IF YOU WANT MORE INFORMATION on these requirements, call the National Lead Information Center at **1-800-424-LEAD (424-5323)**.

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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

Childhood lead poisoning remains a major environmental health problem in the U.S.

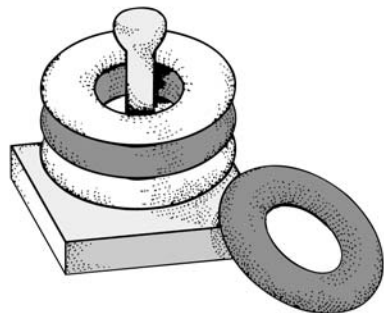
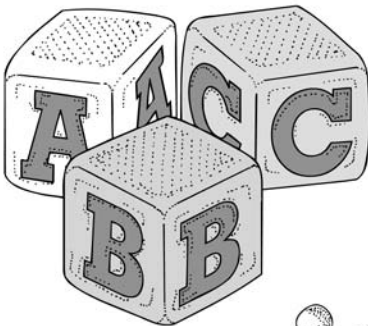
Even children who appear healthy can have dangerous levels of lead in their bodies.

People can get lead in their body if they:

- ◆ Breathe in lead dust (especially during renovations that disturb painted surfaces).
- ◆ Put their hands or other objects covered with lead dust in their mouths.
- ◆ Eat paint chips or soil that contains lead.

Lead is even more dangerous to children than adults because:

- ◆ Children's brains and nervous systems are more sensitive to the damaging effects of lead.
- ◆ Children's growing bodies absorb more lead.
- ◆ Babies and young children often put their hands and other objects in their mouths. These objects can have lead dust on them.



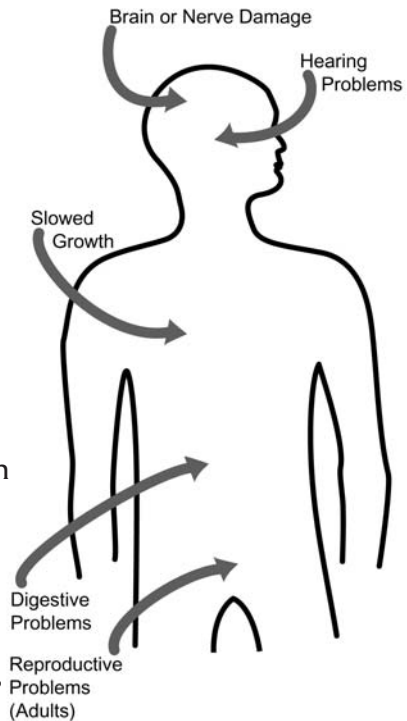
Lead's Effects

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.

Identifying Lead Hazards

Lead-based paint is usually not a hazard if it is in good condition, and it is not on an impact or friction surface, like a window. It is defined by the federal government as paint with lead levels greater than or equal to 1.0 milligram per square centimeter, or more than 0.5% by weight.

Deteriorating lead-based paint (peeling, chipping, chalking, cracking or damaged) is a hazard and needs immediate attention. It may also be a hazard when found on surfaces that children can chew or that get a lot of wear-and-tear, such as:

- ◆ Windows and window sills.
- ◆ Doors and door frames.
- ◆ Stairs, railings, banisters, and porches.

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. The following two federal standards have been set for lead hazards in dust:

- ◆ 40 micrograms per square foot ($\mu\text{g}/\text{ft}^2$) and higher for floors, including carpeted floors.
- ◆ 250 $\mu\text{g}/\text{ft}^2$ and higher for interior window sills.

Lead in soil can be a hazard when children play in bare soil or when people bring soil into the house on their shoes. The following two federal standards have been set for lead hazards in residential soil:

- ◆ 400 parts per million (ppm) and higher in play areas of bare soil.
- ◆ 1,200 ppm (average) and higher in bare soil in the remainder of the yard.

The only way to find out if paint, dust and soil lead hazards exist is to test for them. The next page describes the most common methods used.

Lead from paint chips, which you can see, and lead dust, which you can't always see, can both be serious hazards.

Checking Your Home for Lead

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 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.

Hire a trained, certified professional who will use a range of reliable methods when checking your home, such as:

- ◆ Visual inspection of paint condition and location.
- ◆ A portable x-ray fluorescence (XRF) machine.
- ◆ Lab tests of paint, dust, and soil samples.

There are standards in place to ensure the work is done safely, reliably, and effectively. Contact your local lead poisoning prevention program for more information, or call **1-800-424-LEAD** for a list of contacts in your area.

Home test kits for lead are available, but may not always be 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.



Reducing Lead Hazards In The Home

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 should 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 permanent removal.

Always hire a person with special training for correcting lead problem—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.

Once the work is completed, dust cleanup activities must be repeated until testing indicates that lead dust levels are below the following:

- ◆ 40 micrograms per square foot ($\mu\text{g}/\text{ft}^2$) for floors, including carpeted floors;
- ◆ 250 $\mu\text{g}/\text{ft}^2$ for interior windows sills; and
- ◆ 400 $\mu\text{g}/\text{ft}^2$ for window troughs.

Call your local agency (see page 11) for help with locating certified contractors in your area and to see if financial assistance is available.

Remodeling or Renovating a Home With Lead-Based Paint

Take precautions before your contractor or you begin remodeling or renovating anything that disturbs 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.

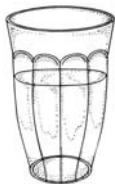
If you have already completed renovations or remodeling that could have released lead-based paint or dust, get your young children tested and follow the steps outlined on page 7 of this brochure.



If not conducted properly, certain types of renovations can release lead from paint and dust into the air.



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.

For More Information

The National Lead Information Center

Call **1-800-424-LEAD (424-5323)** to learn how to protect children from lead poisoning and for other information on lead hazards. To access lead information via the web, visit **www.epa.gov/lead** and **www.hud.gov/offices/lead/**.

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**.

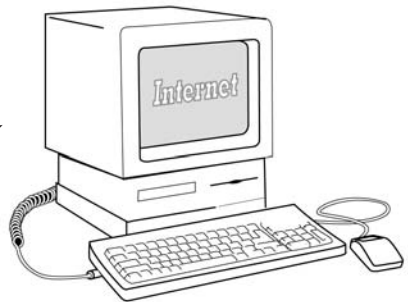


EPA's Safe Drinking Water Hotline

Call **1-800-426-4791** for information about lead in drinking water.

Consumer Product Safety Commission (CPSC) 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**, or visit CPSC's website at: **www.cpsc.gov**.



Health and Environmental Agencies

Some cities, states, and tribes have their own rules for lead-based paint activities. Check with your local agency to see which laws apply to you. Most 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 your local contacts on the Internet at **www.epa.gov/lead** or contact the National Lead Information Center at **1-800-424-LEAD**.

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, Maryland, Pennsylvania, Virginia, Washington DC, 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) 947-4164

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

CPSC Regional Offices

Your Regional CPSC Office can provide further information regarding regulations and consumer product safety.

Eastern Regional Center

Consumer Product Safety Commission
201 Varick Street, Room 903
New York, NY 10014
(212) 620-4120

Western Regional Center

Consumer Product Safety Commission
1301 Clay Street, Suite 610-N
Oakland, CA 94612
(510) 637-4050

Central Regional Center

Consumer Product Safety Commission
230 South Dearborn Street, Room 2944
Chicago, IL 60604
(312) 353-8260

HUD Lead Office

Please contact HUD's Office of Healthy Homes and 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 Healthy Homes and Lead Hazard Control
451 Seventh Street, SW, P-3206
Washington, DC 20410
(202) 755-1785

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.



An Insider's Guide To
Lead-Safe Painting And
Home Improvement.



In The Beginning.

If you're like most homeowners, you've probably thought about doing a painting project or some other type of home improvement. It can create a better living space, give you a sense of satisfaction and increase the value of your home. Whether you do it yourself or hire a professional, there are safety issues to consider before starting the job.

Removing paint that contains lead is the most hazardous part of a painting or home improvement project. Lead paint was used in homes built before 1978, and extensively in homes built before 1960. It was usually applied to windows, doors, stairs, railings, columns, porches, siding and trim. Since these are the places that often need work, many home improvement projects disturb old layers of lead paint and create lead paint dust, chips, or fumes. If lead is inhaled or ingested, it may cause lead poisoning. Lead poisoning can result in serious harm to the brain, kidneys, nervous system and red blood cells. Lead is especially dangerous to children and pregnant women.

The Fuss About Dust.

Choose work methods that create the least amount of dust.



- Hand sand wetted surfaces
- Use chemical strippers (but not those containing methylene chloride)
- Use heat guns (but not those that operate above 700° F)
- Consider buying or renting a HEPA vacuum which can be safely used where there is leaded dust.

Play It Safe.

Always follow these safety guidelines as you work.

- Keep children and pregnant women out of the work area.
- Work on one room at a time.
- Remove as much furniture as you can from the room.
- Cover remaining furniture with 6 mil plastic securely taped in place.
- Close off the work area by taping 6 mil plastic over all doors, windows, the floor, ground, and other exposed surfaces.
- Turn off forced-air heating and air conditioning systems and cover vents with 6 mil plastic securely taped in place.
- Allow only workers in the area until the job is complete. Be careful not to track dust out of the work area.
- Don't eat, drink, or smoke while in the work area.
- Use a plant mister to wet the work surface before hand scraping and sanding. Mist drop cloths/plastic sheets before rolling up. Misting will suppress dust.
- If others do the work, ensure they follow these work practices to protect your family's health and safety.



The Right Stuff.

Using the proper equipment will help you complete your job safely.

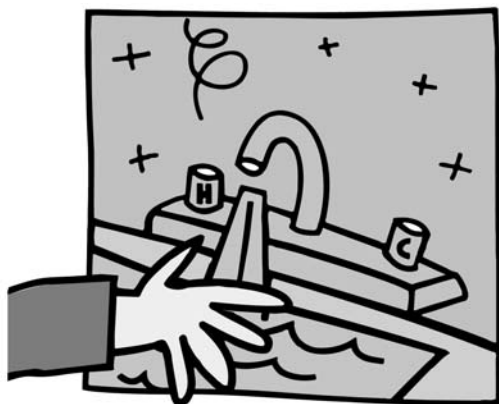


- Protective clothing (such as safety glasses, disposable gloves, hat, shoe covers, and protective clothes)
- 6 mil plastic drop cloths
- Duct tape
- Mops and buckets (two)
- All purpose cleaner or cleaner made just for lead clean-up
- Spray bottles/plant misters
- Disposable rags or paper towels
- Heavy duty plastic bags
- HEPA vacuum (call participating agencies on the back of this brochure for more information on rental or purchase in your area)



Leave The Scene Clean.

Always clean up carefully at the end of each workday.



- Change work clothes and shoes before leaving the work site.
- Wash hands and face immediately after leaving work area.
- Shower and wash hair as soon as possible after work/cleanup is completed.
- Wash work clothes separately.



AT FINAL CLEAN-UP

- Place all dust and chips in double garbage bags.
- Carefully roll or fold 6 mil plastic drop cloths inward (keeping the dust from flying around) and discard in double garbage bags.
- Use two buckets for cleaning, one with detergent and one with clean rinse water.
- Wash floors, walls, etc. with an all purpose cleaner and disposable or paper towels then rinse well. Change rinse water often.
- Dispose of towels in plastic bags.
- Never burn leaded debris.



Take It Off, Slowly.

Never use these dangerous paint-removal methods.



- Don't dry scrape
- Don't sandblast
- Don't use an open flame or torch burn paint
- Don't power sand
- Don't use methylene chloride
- Don't use heat guns which operate over 700 F

Get The Lead Out.

Make sure to test for lead dust when your job is finished.



- Take dust samples to determine whether the final clean-up has been thorough.
- Lead dust test kits are available in many hardware stores. Kits are also available through the participating agencies listed on the back of this brochure.



Dust Sampling.

It is recommended that three samples (the floor, a window sill and a window well) be taken in each room where work has been done.

For the floor:

- Measure a 12" by 12" square (you may want to outline it with masking tape)
- Place unpowdered disposable gloves on hands.
- Take a moist baby wipe or towlette and wipe the area in an "S" pattern from top to bottom. (Avoid wipes that contain aloe or that are scented.)
- Fold wipe with dirty side in.
- Using the clean side, wipe the area in the same "S" pattern from side to side.
- Place wipe in appropriate labeled container. (Contact laboratory for specific containers.)

For window wells and window sills:

- Follow the same process as above, but the area does not have to be 12" by 12".
- Measure the length and width of the wiped area and record on the sampling form.

Be sure to properly label the sample containers and Complete the laboratory form.

Remember to change gloves between samples.

Lead dust on gloves can contaminate samples.

For additional guidance, or to get the name of an accredited laboratory to analyze paint or dust samples, contact the EPA's National Lead Information Hotline at 1-800-424-LEAD or log on to: www.epa.gov/lead.

