

ALL Children Can Be Exposed to Lead



Accessible link: <https://www.cdc.gov/nceh/lead/docs/all-children-can-be-exposed-to-lead.html>

Lead exposure is not limited to children who are from specific racial and ethnic minority groups, come from households with lower incomes, were born outside of the United States, or live with an adult who works with lead. Parents and caregivers are encouraged to talk to their healthcare providers to find out if their children are at risk for lead exposure and if a blood lead test is needed. Based on the child's blood lead level, they can be connected to recommended nutritional, educational, and environmental services.

Below are some real-world examples of situations where children have been exposed to lead.

LEAD IN SOIL



CDC currently uses a blood lead reference value of 3.5 micrograms per deciliter ($\mu\text{g}/\text{dL}$) to identify children with higher levels of lead in their blood than most children. Karla's son was diagnosed with a blood lead level of $11\mu\text{g}/\text{dL}$ at age 1, and she could not pinpoint the source of lead exposure.

"The house was recently painted, and there were no obvious lead hazards. There were some small bare soil areas in which my son would play but nothing too overwhelming. I had my soil tested and the samples came back less than 400ppm—the standard for a child's outdoor play area. But a child like my son, who eats dirt or puts everything in his mouth, was exposed repeatedly to low levels of lead, which can build up in his body."



Visit [CDC's Lead in Soil web page](#) to learn more about this potential source of lead exposure.

KITCHEN RENOVATION



"We had a full kitchen renovation done that resulted in lead dust ... I am concerned about my daughter's lead level test due to any possible intake."

John's daughter was tested for lead exposure, and the test result revealed she had lead in her blood.



No safe blood lead level in children has been identified. Hire contractors for renovations who are trained in lead-safe practices. Visit [EPA's web page](#) to locate a certified contractor.

OLD KITCHEN SINK



Laura, a parent of young children, was concerned about the presence of lead in their older home.

"I just swabbed my old barn style kitchen sink, and it came back positive for lead. The sink is wearing away, so the porcelain paint is chipping off. I'm afraid it will go onto dishes and cups we all eat and drink from."



If your child is exposed to lead, get them tested and talk to your healthcare provider about recommended services.

WINDOW REPLACEMENT



Colleen hired a company to replace the windows in her house. Her family returned to find several leftover paint chips in and around the house. Colleen knew there was lead paint in her house since it was built in 1924:

"The company that did our windows took ZERO precautions for lead and didn't give us the handout for lead levels in children ... I called our pediatrician immediately. They took blood samples from the kids and advised us to get out of the house until the lead risk was gone."



If your children have been exposed to lead, contact their healthcare provider to get them tested and determine the next steps.

SWIMMING POOL



A lead inspection was conducted for a family after both children had high blood lead levels. After testing in and around the house, it was discovered the source of lead exposure was the scuba weights used to hold down the filter lines in the family's swimming pool.

"Children accidentally swallowing lead-contaminated water from the family's wading pool over a 2-3 week period may have harmed children's health because of the high lead concentration in the pool water."



Sometimes it can be difficult to find sources of lead exposure. Hire a lead inspector to identify sources of lead exposure. To locate a certified lead inspector, visit [EPA's web page](#).

HOUSE PAINT



Steve recently hired a company to paint his house.

"I was told that they would sand blast all the old paint off and clean it up. They did not do a very good job in cleaning up the paint chips, and now I'm worried about the paint chips left around my house ..."



Lead-based paints were banned for residential use in 1978. Home repairs and renovations, such as sanding or scraping paint on the inside and outside of homes built before 1978, can release lead dust. Children can be exposed if they eat flaking paint chips or eat or breathe in lead dust.

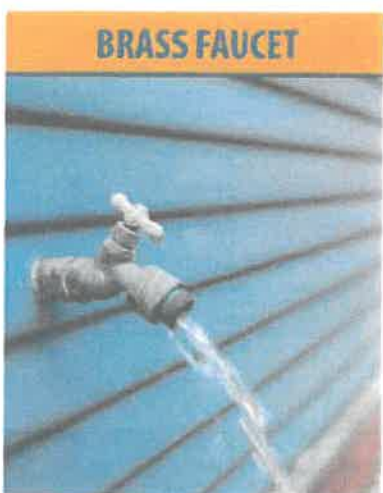


A nonprofit organization operates a toy lending library for families of children with special needs. One staff member reported a family told them a toy they borrowed tested positive for lead.

"Many of our children do put toys in their mouths."



Lead can be found in products such as toys and jewelry. Visit [CDC's Lead in Consumer Products page](#) to learn more.



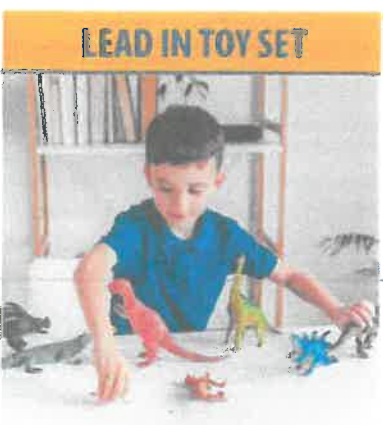
Jennifer read in a public health notice that brass faucets may contain lead.

"Does that mean that watering the grass or plants using a brass faucet will cause a lead hazard?"

Jennifer was concerned that the water from her hose could contaminate her yard's soil and get tracked into her home. Children can be exposed to lead by swallowing or breathing in lead-contaminated soil or dust brought into their home from outside.



Your local water authority is your best resource for testing and identifying lead in your tap water. Visit [CDC's Lead in Drinking Water page](#) to learn more.



Laura N. received a recall notice from an online retailer about her son's toy set containing lead.

"I purchased a set of plastic action figures for my 11-year-old son. Unfortunately, the toy set was recalled because it contained lead. Knowing my son's toy set contained lead was unsettling."



If your child has been exposed to lead, follow up with their healthcare provider.

*Some names have been changed to protect the privacy of the individuals quoted.

Learn more at www.cdc.gov/nceh/lead



What You Need To Know About Lead Poisoning

Despite laws established in the 1970s to make people aware of the dangers of lead and its poisonous effects, lead poisoning in children remains a common, yet preventable, environmental health problem in the United States. By understanding, identifying, and safely removing sources of lead, we can ensure the long-term health of children and prevent its devastating and irreversible effects.

What is lead poisoning?

Lead is a toxic metal used in a variety of products and materials, including paint, vinyl mini-blinds, pipes, leaded crystal, dishware, and pottery coatings. When lead is absorbed into the body, it can cause serious damage to vital organs like the brain, kidneys, nerves, and blood cells. Lead poisoning is especially harmful to children under the age of six.

What are the health effects of lead poisoning in children?

Lead interferes with the development and functioning of almost all body organs, particularly the kidneys, red blood cells, and central nervous system.

Lead poisoning is much more serious when children are exposed to lead. Since their bodies are not fully developed, lead poisoning can cause:

- ▶ **Brain, liver, and kidney damage;**
- ▶ **Slowed development;**
- ▶ **Learning or behavior problems;**
- ▶ **Lowered intellect (or IQ);**
- ▶ **Hearing loss; and**
- ▶ **Restlessness.**

What are the symptoms of lead poisoning?

Most children with lead poisoning do not show any outward symptoms unless blood-lead levels become extremely high; consequently, many cases of children with lead poisoning go undiagnosed and untreated. However, some symptoms of poisoning include:

- ▶ **Headaches;**
- ▶ **Stomachaches;**
- ▶ **Nausea;**
- ▶ **Tiredness; and**
- ▶ **Irritability.**

Because the symptoms of lead poisoning are similar to those of flu or viruses, the only way to know if a child is poisoned is to have a doctor perform a simple blood test.

Blood Testing: The only way to detect lead poisoning is by performing a simple blood test. The bodies of children six-months to two years of age absorb more lead; thus, testing is increasingly important for their health. Nevertheless, all children under the age of six should have their blood-lead levels tested at their regular pediatrician's office or at a public health clinic, even if nothing is apparently wrong with their health.

What are the main sources of lead?

Lead hazards can be found in several places inside and outside of your home, including:

- ▶ **Old Paint:** Lead-based paint, most often found in homes built before 1978, is unsafe if it peels, chips, cracks, or chalks. Since babies and young children often put their hands and other objects in their mouths, they are likely to swallow lead dust or chew paint chips.
- ▶ **Lead Dust:** This harmful, invisible dust is created when windows, doors, edges of stairs, rails, or other surfaces with lead-based paint wear down from repeated friction, such as opening or closing windows or doors. Children are most often poisoned by consuming lead dust through normal hand-to-mouth activity. Pregnant women who breathe in high levels of lead dust can transmit lead to their unborn children, causing serious damage.
- ▶ **Important:** Lead dust can spread throughout a home when walls or other painted surfaces are sanded, scraped, or torn down. Only trained professionals should safely remove old paint surfaces in a home.
- ▶ **Soil:** Soil surrounding homes may be contaminated from chipping or flaking exterior lead-based paint. While playing outside, especially on bare soil, children can accidentally swallow the contaminated soil, or track it indoors on carpets and floors where they can come into contact with it.



For more information about lead poisoning, visit EPA's Web site at www.epa.gov/lead or call The National Lead Information Center at 1-800-424-LEAD (5323).



What You Need To Know About Lead What You Need To Know What You Need To Know About Lead What You Need To Know What You Need To Know About Lead What You Need To Know

- ▶ **Drinking Water:** Lead pipes placed in homes before 1930 are likely to contain lead, which is released into drinking water as it passes through the old pipes. Between 10 and 20 percent of a non-lead poisoned child's total lead contact comes from drinking water.
- ▶ **Food:** Lead can leech into food or drinks, which are stored in imported ceramic dishes or pottery.

Other sources of Lead:

- ▶ **Workplace exposure:** Parents who work in lead-related industries (namely painting, automotive, or recycling industries) or use lead for hobbies (such as for stained glass windows).
- ▶ **Home remedies:** Aragon, greta, or pay-loo-ah.
- ▶ **Cosmetics:** Kohl and kajal.

How can lead poisoning be prevented?

Since treatment options for lead poisoning are limited, it's best to prevent lead poisoning before it has a chance to occur. Lead poisoning is preventable with proper:

- ▶ **Nutrition:** Serve children foods with a high content of *iron* (such as eggs, cooked beans, or red meats), *calcium* (such as cheese, yogurt, or cooked greens) and *vitamin C* (such as citrus fruits, green peppers, or tomatoes). Adequate intake of these nutrients minimizes lead absorption in children's bodies.
- ▶ **Housekeeping:** Teach and practice healthy home habits, such as hand-washing before eating and sleeping, shoe removal, washing children's toys or other chewable surfaces, purchasing "lead-free" mini-blinds, and wet mopping and drying floors and surfaces. Hire a certified professional to safely remove lead sources from a home. Make sure children and pregnant women do not stay inside a home when renovations are underway.
- ▶ **Personal Care:** Wash your hands and your children's hands frequently, especially before eating and sleeping.



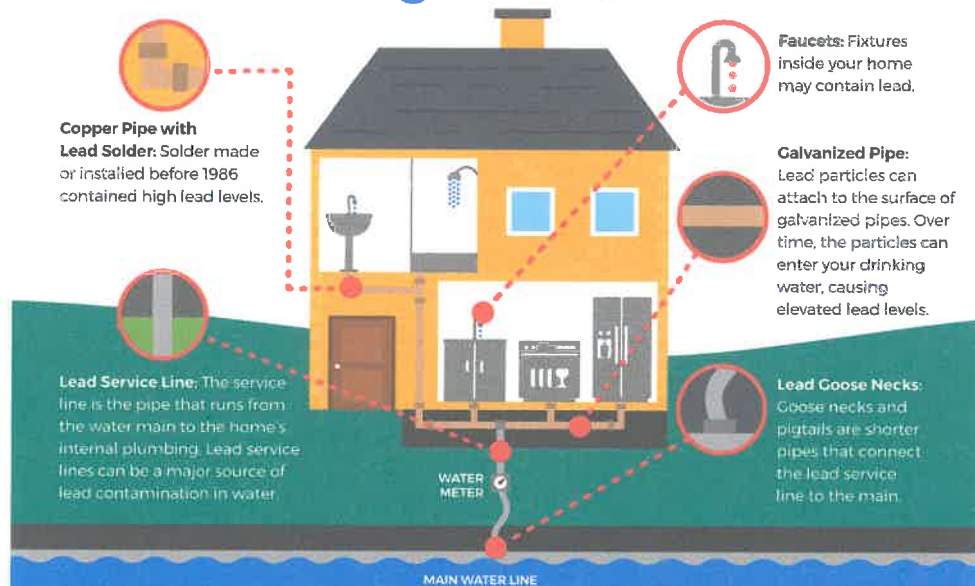
For more information about lead poisoning, visit EPA's Web site at www.epa.gov/lead or call The National Lead Information Center at 1-800-424-LEAD (5323).





CONCERNED ABOUT LEAD IN YOUR DRINKING WATER?

Sources of **LEAD** in Drinking Water



Reduce Your Exposure To Lead



Use only cold water for drinking, cooking and making baby formula. *Boiling water does not remove lead from water.*



Regularly clean your faucet's screen (also known as an aerator).



Consider using a water filter certified to remove lead and know when it's time to replace the filter.



Before drinking, flush your pipes by running your tap, taking a shower, doing laundry or a load of dishes.

To find out for certain if you have lead in drinking water, **have your water tested.**

Replace Your Lead Service Line



Water systems are required to replace lead service lines if a water system cannot meet EPA's Lead Action Level through optimized corrosion control treatment.

Replacement of the lead service line is often the responsibility of both the utility and homeowner.

Homeowners can contact their water system to learn about how to remove the lead service line.

Identify Other Lead Sources In Your Home

Lead in homes can also come from sources other than water. If you live in a home built before 1978, you may want to have your paint tested for lead. **Consider contacting your doctor to have your children tested if you are concerned about lead exposure.**



For more information, visit: [epa.gov/safewater](https://www.epa.gov/safewater)

RENOVATE LEAD-SAFE

Protect yourself and your family from lead exposure by being aware of potential hazards during home renovation projects.



**~34.6
MILLION
HOMES**

in the U.S. have
lead-based paint
somewhere in the
building*

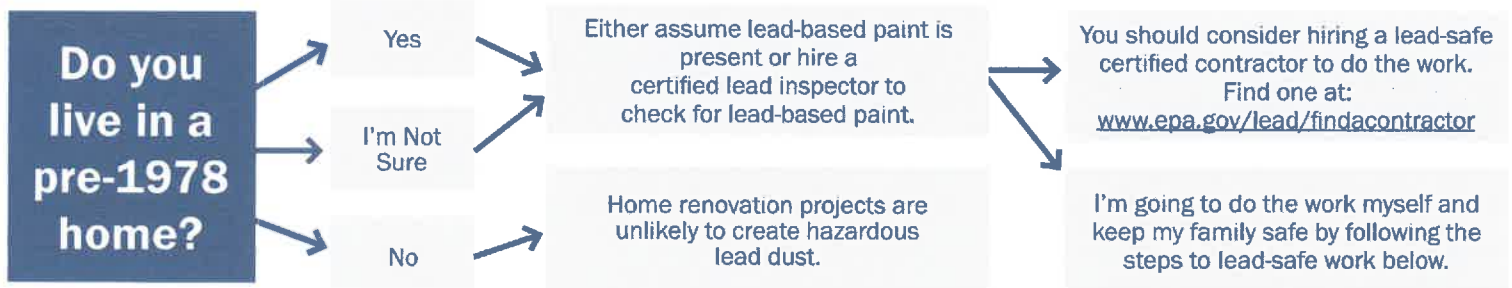
If your home was built before 1978, a home renovation project can easily create dangerous lead dust. This is one of the most common ways children are exposed to lead. Even low levels of lead in children's blood have been shown to affect a child's intellect, concentration, and academic achievement.

EPA encourages anyone pursuing renovations in a pre-1978 home to use a lead-safe certified contractor. However, if you plan to do-it-yourself (DIY), there are simple, important steps you should take to keep yourself and others safe during and after the renovation.

*U.S. Department of Housing and Urban Development, Office of Lead Hazard Control and Healthy Homes. (2021, October). American Healthy Homes Survey II Lead Findings.

Considering a home renovation project?

This chart can help you stay lead-safe while you renovate:



Steps to Lead-Safe Work



This document presents an overview of lead-safe work practices. For detailed information about lead-safe work practices, please visit epa.gov/lead/rrp-diylers.

REDUCE LEAD POISONING RISKS

During Home Repairs and Renovations



Tips for Contractors and Do-It-Yourselfers

It's easy for lead dust and fumes to get into your body when doing home repairs, maintenance, and painting. Young children are at highest risk of lead poisoning, although adults and pets can be poisoned too.

If a home was built before 1978, it may contain lead paint. The older the home, the more likely that lead is present. Always use lead-safe work practices until the home is inspected for lead.

CONTRACTORS

If you are doing repairs, maintenance, or painting in homes or other structures built before 1978, they may contain lead, and you must be trained in lead-safe work practices. The U.S. Environmental Protection Agency (EPA) requires that you are certified to comply with the Renovation, Repair and Painting (RRP) Rule if you are working on more than 6 square feet of interior surface or 20 square feet of exterior surface. For more information, visit www.epa.gov/lead or contact the National Lead Information Center at 1-800-424-LEAD (5323).



WORK SMART, WORK WET, and WORK CLEAN without much cost or effort

WORK SMART

1. Choose paint removal methods that minimize dust. Avoid sanding, burning, and grinding, and replace building components rather than removing paint when possible. Wear personal protective equipment (PPE) while working including a painter's hat, coveralls, shoe covers, and an N-95 respirator.



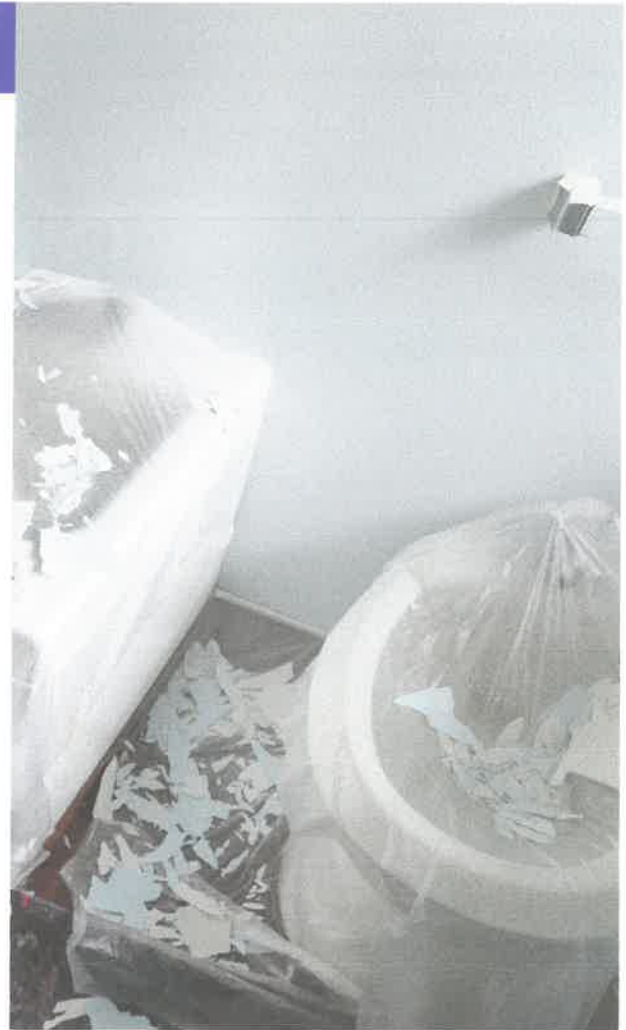
WORK WET

2. When paint removal is necessary, use water while working to reduce dust and fumes. For example, use a water spray bottle to wet any surface to be scraped or sanded.



WORK CLEAN

3. Prepare the work area. Use plastic sheeting to cover floors, furniture, and other items that may collect dust. Close windows and cover doorways to work areas with plastic sheeting. Plastic sheeting isn't expensive and must be thrown out after the job is done.
4. Clean up after the work is complete. Use a wet mop with a removable head and then throw out the mop head after you're done. Use a vacuum with a HEPA filter followed by mopping to ensure surfaces are dust free. Shop vacs should not be used for cleanup because they can spread lead dust.



QUESTIONS?

Email the New York State Department of Health
Lead Poisoning Prevention Program at LPPP@health.ny.gov.



Department
of Health

THE LEAD-SAFE CERTIFIED GUIDE TO RENOVATE RIGHT

WARNING
LEAD WORK AREA
POISON
NO SMOKING
OR EATING

CAUTION

CAUTION

CAUTION

CAUTION

CAUTION

CAUTION

CAUTION



1-800-424-LEAD (5323)
epa.gov/getleadsafe

EPA-740-K-10-001

Revised September 2011



Important lead hazard information for
families, child care providers and schools.



This document may be purchased through the U.S. Government Printing Office online at
bookstore.gpo.gov or by phone (toll-free) 1-866-512-1800.

IT'S THE LAW!

Federal law requires contractors that disturb painted surfaces in homes, child care facilities and schools built before 1978 to be certified and follow specific work practices to prevent lead contamination. Always ask to see your contractor's certification.

Federal law requires that individuals receive certain information before renovating more than six square feet of painted surfaces in a room for interior projects or more than twenty square feet of painted surfaces for exterior projects or window replacement or demolition in housing, child care facilities and schools built before 1978.

- Homeowners and tenants: renovators must give you this pamphlet before starting work.
- Child care facilities, including preschools and kindergarten classrooms, and the families of children under six years of age that attend those facilities: renovators must provide a copy of this pamphlet to child care facilities and general renovation information to families whose children attend those facilities.

WHO SHOULD READ THIS PAMPHLET?

This pamphlet is for you if you:

- Reside in a home built before 1978.
- Own or operate a child care facility, including preschools and kindergarten classrooms, built before 1978, or
- Have a child under six years of age who attends a child care facility built before 1978.

You will learn:

- Basic facts about lead and your health.
- How to choose a contractor, if you are a property owner.
- What tenants, and parents/guardians of a child in a child care facility or school should consider.
- How to prepare for the renovation or repair job.
- What to look for during the job and after the job is done.
- Where to get more information about lead.

This pamphlet is not for:

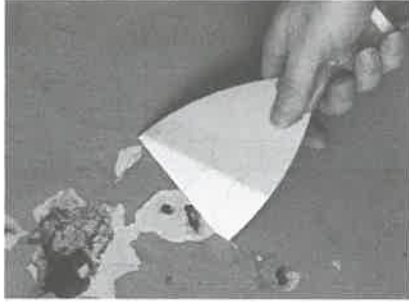
- **Abatement projects.** Abatement is a set of activities aimed specifically at eliminating lead or lead hazards. EPA has regulations for certification and training of abatement professionals. If your goal is to eliminate lead or lead hazards, contact the National Lead Information Center at 1-800-424-LEAD (5323) for more information.

• **"Do-it-yourself" projects.** If you plan to do renovation work yourself, this document is a good start, but you will need more information to complete the work safely. Call the National Lead Information Center at 1-800-424-LEAD (5323) and ask for more information on how to work safely in a home with lead-based paint.

- **Contractor education.** Contractors who want information about working safely with lead should contact the National Lead Information Center at 1-800-424-LEAD (5323) for information about courses and resources on lead-safe work practices.



RENOVATING, REPAIRING, OR PAINTING?



- Is your home, your building, or the child care facility or school your children attend being renovated, repaired, or painted?
- Was your home, your building, or the child care facility or school where your children under six years of age attend built before 1978?

If the answer to these questions is YES, there are a few important things you need to know about lead-based paint.

This pamphlet provides basic facts about lead and information about lead safety when work is being done in your home, your building or the child care facility or school your children attend.

The Facts About Lead

- Lead can affect children's brains and developing nervous systems, causing reduced IQ, learning disabilities, and behavioral problems. Lead is also harmful to adults.
- Lead in dust is the most common way people are exposed to lead. People can also get lead in their bodies from lead in soil or paint chips. Lead dust is often invisible.
- Lead-based paint was used in more than 38 million homes until it was banned for residential use in 1978.
- Projects that disturb painted surfaces can create dust and endanger you and your family. Don't let this happen to you. Follow the practices described in this pamphlet to protect you and your family.

LEAD AND YOUR HEALTH



Lead is especially dangerous to children under six years of age.

Lead can affect children's brains and developing nervous systems, causing:

- Reduced IQ and learning disabilities.
- Behavior problems.

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

Lead is also harmful to adults. In adults, low levels of lead can pose many dangers, including:

- High blood pressure and hypertension.
- Pregnant women exposed to lead can transfer lead to their fetuses. Lead gets into the body when it is swallowed or inhaled.
- People, especially children, can swallow lead dust as they eat, play, and do other normal hand-to-mouth activities.
- People may also breathe in lead dust or fumes if they disturb lead-based paint. People who sand, scrape, burn, brush, blast or otherwise disturb lead-based paint risk unsafe exposure to lead.

What should I do if I am concerned about my family's exposure to lead?

- A blood test is the only way to find out if you or a family member already has lead poisoning. Call your doctor or local health department to arrange for a blood test.
- Call your local health department for advice on reducing and eliminating exposures to lead inside and outside your home, child care facility or school.
- Always use lead-safe work practices when renovation or repair will disturb painted surfaces.

For more information about the health effects of exposure to lead, visit the EPA lead website at [epa.gov/lead/pubs/leadinfo](https://www.epa.gov/lead/pubs/leadinfo) or call 1-800-424-LEAD (5323).

There are other things you can do to protect your family every day.

- Regularly clean floors, window sills, and other surfaces.
- Wash children's hands, bottles, pacifiers, and toys often.
- Make sure children eat a healthy, nutritious diet consistent with the USDA's dietary guidelines, that helps protect children from the effects of lead.
- Wipe off shoes before entering the house.

WHERE DOES THE LEAD COME FROM?

Dust is the main problem.

The most common way to get lead in the body is from dust. Lead dust comes from deteriorating lead-based paint and lead-contaminated soil that gets tracked into your home. This dust may accumulate to unsafe levels. Then, normal hand to-mouth activities, like playing and eating (especially in young children), move that dust from surfaces like floors and window sills into the body.

Home renovation creates dust.

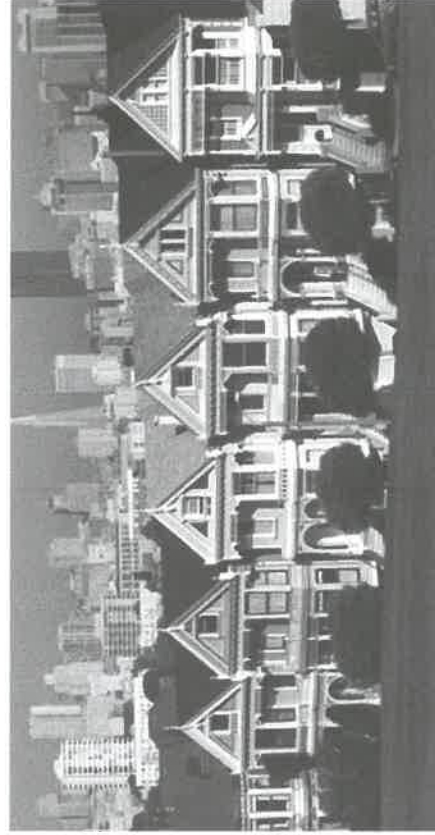
Common renovation activities like sanding, cutting, and demolition can create hazardous lead dust and chips.

Proper work practices protect you from the dust.

The key to protecting yourself and your family during a renovation, repair or painting job is to use lead-safe work practices such as containing dust inside the work area, using dust-minimizing work methods, and conducting a careful cleanup, as described in this pamphlet.

Other sources of lead.

Remember, lead can also come from outside soil, your water, or household items (such as lead-glazed pottery and lead crystal). Contact the National Lead Information Center at 1-800-424-LEAD (5323) for more information on these sources.



CHECKING YOUR HOME FOR LEAD-BASED PAINT

Percentage of Homes Likely to Contain Lead



Older homes, child care facilities, and schools are more likely to contain lead-based paint.

Homes may be single-family homes or apartments. They may be private, government-assisted, or public housing. Schools are preschools and kindergarten classrooms. They may be urban, suburban, or rural.

You have the following options:

You may decide to assume your home, child care facility, or school contains lead. Especially in older homes and buildings, you may simply want to assume lead-based paint is present and follow the lead-safe work practices described in this brochure during the renovation, repair, or painting job.

You can hire a certified professional to check for lead-based paint.

These professionals are certified risk assessors or inspectors, and can determine if your home has lead or lead hazards.

- A certified inspector or risk assessor can conduct an inspection telling you whether your home, or a portion of your home, has lead-based paint and where it is located. This will tell you the areas in your home where lead-safe work practices are needed.
- A certified risk assessor can conduct a risk assessment telling you if your home currently has any lead hazards from lead in paint, dust, or soil. The risk assessor can also tell you what actions to take to address any hazards.
- For help finding a certified risk assessor or inspector, call the National Lead Information Center at 1-800-424-LEAD (5323).

You may also have a certified renovator test the surfaces or components being disturbed for lead by using a lead test kit or by taking paint chip samples and sending them to an EPA-recognized testing laboratory. Test kits must be EPA-recognized and are available at hardware stores. They include detailed instructions for their use.

FOR PROPERTY OWNERS

You have the ultimate responsibility for the safety of your family, tenants, or children in your care.

This means properly preparing for the renovation and keeping persons out of the work area (see p. 8). It also means ensuring the contractor uses lead-safe work practices.

Federal law requires that contractors performing renovation, repair and painting projects that disturb painted surfaces in homes, child care facilities, and schools built before 1978 be certified and follow specific work practices to prevent lead contamination.

Make sure your contractor is certified, and can explain clearly the details of the job and how the contractor will minimize lead hazards during the work.

- You can verify that a contractor is certified by checking EPA's website at epa.gov/getleadsafe or by calling the National Lead Information Center at 1-800-424-LEAD (5323). You can also ask to see a copy of the contractor's firm certification.
- Ask if the contractor is trained to perform lead-safe work practices and to see a copy of their training certificate.
- Ask them what lead-safe methods they will use to set up and perform the job in your home, child care facility or school.
- Ask for references from at least three recent jobs involving homes built before 1978, and speak to each personally.

Always make sure the contract is clear about how the work will be set up, performed, and cleaned.

- Share the results of any previous lead tests with the contractor.
- You should specify in the contract that they follow the work practices described on pages 9 and 10 of this brochure.
- The contract should specify which parts of your home are part of the work area and specify which lead-safe work practices will be used in those areas. Remember, your contractor should confine dust and debris to the work area and should minimize spreading that dust to other areas of the home.
- The contract should also specify that the contractor will clean the work area, verify that it was cleaned adequately, and re-clean it if necessary.

If you think a worker is not doing what he is supposed to do or is doing something that is unsafe, you should:

- Direct the contractor to comply with regulatory and contract requirements.
- Call your local health or building department, or
- Call EPA's hotline 1-800-424-LEAD (5323).

If your property receives housing assistance from HUD (or a state or local agency that uses HUD funds), you must follow the requirements of HUD's Lead-Safe Housing Rule and the ones described in this pamphlet.

FOR TENANTS AND FAMILIES OF CHILDREN UNDER SIX YEARS OF AGE IN CHILD CARE FACILITIES AND SCHOOLS

You play an important role ensuring the ultimate safety of your family.

This means properly preparing for the renovation and staying out of the work area (see p. 8).

Federal law requires that contractors performing renovation, repair and painting projects that disturb painted surfaces in homes built before 1978 and in child care facilities and schools built before 1978, that a child under six years of age visits regularly, to be certified and follow specific work practices to prevent lead contamination.

The law requires anyone hired to renovate, repair, or do painting preparation work on a property built before 1978 to follow the steps described on pages 9 and 10 unless the area where the work will be done contains no lead-based paint.

If you think a worker is not doing what he is supposed to do or is doing something that is unsafe, you should:

- Contact your landlord.
- Call your local health or building department, or
- Call EPA's hotline 1-800-424-LEAD (5323).

If you are concerned about lead hazards left behind after the job is over, you can check the work yourself (see page 10).



PREPARING FOR A RENOVATION

The work areas should not be accessible to occupants while the work occurs.

The rooms or areas where work is being done may need to be blocked off or sealed with plastic sheeting to contain any dust that is generated. Therefore, the contained area may not be available to you until the work in that room or area is complete, cleaned thoroughly, and the containment has been removed. Because you may not have access to some areas during the renovation, you should plan accordingly.

You may need:

- Alternative bedroom, bathroom, and kitchen arrangements if work is occurring in those areas of your home.
- A safe place for pets because they too can be poisoned by lead and can track lead dust into other areas of the home.
- A separate pathway for the contractor from the work area to the outside in order to bring materials in and out of the home. Ideally, it should not be through the same entrance that your family uses.
- A place to store your furniture. All furniture and belongings may have to be moved from the work area while the work is being done. Items that can't be moved, such as cabinets, should be wrapped in plastic.
- To turn off forced-air heating and air conditioning systems while the work is being done. This prevents dust from spreading through vents from the work area to the rest of your home. Consider how this may affect your living arrangements.

You may even want to move out of your home temporarily while all or part of the work is being done.

Child care facilities and schools may want to consider alternative accommodations for children and access to necessary facilities.



DURING THE WORK

Federal law requires contractors that are hired to perform renovation, repair and painting projects in homes, child care facilities, and schools built before 1978 that disturb painted surfaces to be certified and follow specific work practices to prevent lead contamination.

The work practices the contractor must follow include these three simple procedures, described below:

1. **Contain the work area.** The area must be contained so that dust and debris do not escape from that area. Warning signs must be put up and plastic or other impermeable material and tape must be used as appropriate to:
 - Cover the floors and any furniture that cannot be moved.
 - Seal off doors and heating and cooling system vents.
 - For exterior renovations, cover the ground and, in some instances, erect vertical containment or equivalent extra precautions in containing the work area.

These work practices will help prevent dust or debris from getting outside the work area.

2. **Avoid renovation methods that generate large amounts of lead-contaminated dust.** Some methods generate so much lead-contaminated dust that their use is prohibited. They are:

- Open flame burning or torching.
- Sanding, grinding, planing, needle gunning, or blasting with power tools and equipment not equipped with a shroud and HEPA vacuum attachment.
- Using a heat gun at temperatures greater than 1100°F.



There is no way to eliminate dust, but some renovation methods make less dust than others. Contractors may choose to use various methods to minimize dust generation, including using water to mist areas before sanding or scraping; scoring paint before separating components; and prying and pulling apart components instead of breaking them.

3. **Clean up thoroughly.** The work area should be cleaned up daily to keep it as clean as possible. When all the work is done, the area must be cleaned up using special cleaning methods before taking down any plastic that isolates the work area from the rest of the home. The special cleaning methods should include:

- Using a HEPA vacuum to clean up dust and debris on all surfaces, followed by
- Wet wiping and wet mopping with plenty of rinse water.

When the final cleaning is done, look around. There should be no dust, paint chips, or debris in the work area. If you see any dust, paint chips, or debris, the area must be re-cleaned.

FOR PROPERTY OWNERS: AFTER THE WORK IS DONE

When all the work is finished, you will want to know if your home, child care facility, or school where children under six attend has been cleaned up properly.

EPA Requires Cleaning Verification.

In addition to using allowable work practices and working in a lead-safe manner, EPA's RRP rule requires contractors to follow a specific cleaning protocol. The protocol requires the contractor to use disposable cleaning cloths to wipe the floor and other surfaces of the work area and compare these cloths to an EPA-provided cleaning verification card to determine if the work area was adequately cleaned. EPA research has shown that following the use of lead-safe work practices with the cleaning verification protocol will effectively reduce lead-dust hazards.

Lead-Dust Testing.

EPA believes that if you use a certified and trained renovation contractor who follows the LRRP rule by using lead-safe work practices and the cleaning protocol after the job is finished, lead-dust hazards will be effectively reduced. If, however, you are interested in having lead-dust testing done at the completion of your job, outlined below is some helpful information.

What is a lead-dust test?

- Lead-dust tests are wipe samples sent to a laboratory for analysis. You will get a report specifying the levels of lead found after your specific job.

How and when should I ask my contractor about lead-dust testing?

- Contractors are not required by EPA to conduct lead-dust testing. However, if you want testing, EPA recommends testing be conducted by a lead professional. To locate a lead professional who will perform an evaluation near you, visit EPA's website at epa.gov/lead/pubs/locate or contact the National Lead Information Center at **1-800-424-LEAD (5323)**.

- If you decide that you want lead-dust testing, it is a good idea to specify in your contract, before the start of the job, that a lead-dust test is to be done for your job and who will do the testing, as well as whether re-cleaning will be required based on the results of the test.

- You may do the testing yourself. If you choose to do the testing, some EPA-recognized lead laboratories will send you a kit that allows you to collect samples and send them back to the laboratory for analysis. Contact the National Lead Information Center for lists of EPA-recognized testing laboratories.



FOR ADDITIONAL INFORMATION

You may need additional information on how to protect yourself and your children while a job is going on in your home, your building, or child care facility.

The National Lead Information Center at **1-800-424-LEAD (5323)** or epa.gov/lead/nlic can tell you how to contact your state, local, and/or tribal programs or get general information about lead poisoning prevention.

- State and tribal lead poisoning prevention or environmental protection programs can provide information about lead regulations and potential sources of financial aid for reducing lead hazards. If your state or local government has requirements more stringent than those described in this pamphlet, you must follow those requirements.
- Local building code officials can tell you the regulations that apply to the renovation work that you are planning.
- State, county, and local health departments can provide information about local programs, including assistance for lead-poisoned children and advice on ways to get your home checked for lead.

The National Lead Information Center can also provide a variety of resource materials, including the following guides to lead-safe work practices. Many of these materials are also available at epa.gov/lead/pubs/brochure

- Steps to Lead Safe Renovation, Repair and Painting.
- Protect Your Family from Lead in Your Home
- Lead in Your Home: A Parent's Reference Guide



For the hearing impaired, call the Federal Information Relay Service at **1-800-877-8339** to access any of the phone numbers in this brochure.

EPA CONTACTS

EPA Regional Offices

EPA addresses residential lead hazards through several different regulations. EPA requires training and certification for conducting abatement and renovations, education about hazards associated with renovations, disclosure about known lead paint and lead hazards in housing, and sets lead-paint hazard standards.

Your Regional EPA Office can provide further information regarding lead safety and lead protection programs at epa.gov/lead.

Region 1

(Connecticut, Massachusetts, Maine, New Hampshire, Rhode Island, Vermont)
Regional Lead Contact
U.S. EPA Region 1
Suite 1100
One Congress Street
Boston, MA 02114-2023
(888) 372-7341

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 30303-8960
(404) 562-9900

Region 7

(Iowa, Kansas, Missouri, Nebraska)
Regional Lead Contact
U.S. EPA Region 7
901 N. 5th Street
Kansas City, KS 66101
(913) 551-7003

Region 8

(Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming)
Regional Lead Contact
U.S. EPA Region 8
1595 Wynkoop Street
Denver, CO 80202
(303) 312-6312

Region 2

(New Jersey, New York, Puerto Rico, Virgin Islands)
Regional Lead Contact
U.S. EPA Region 2
2890 Woodbridge Avenue
Building 205, Mail Stop 225
Edison, NJ 08837-3679
(732) 321-6671

Region 5

(Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin)
Regional Lead Contact
U.S. EPA Region 5
77 West Jackson Boulevard
Chicago, IL 60604-3507
(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 3

(Delaware, Maryland, Pennsylvania, Virginia, Washington, DC, West Virginia)
Regional Lead Contact
U.S. EPA Region 3
1650 Arch Street
Philadelphia, PA 19103-2029
(215) 814-5000

Region 9

(Arizona, California, Hawaii, Nevada)
Regional Lead Contact
U.S. Region 9
75 Hawthorne Street
San Francisco, CA 94105
(415) 947-8021

Region 10

(Alaska, Idaho, Oregon, Washington)
Regional Lead Contact
U.S. EPA Region 10
1200 Sixth Avenue
Seattle, WA 98101-1128
(206) 553-1200

OTHER FEDERAL AGENCIES

CPSC

The Consumer Product Safety Commission (CPSC) protects the public from the unreasonable risk of injury or death from 15,000 types of consumer products under the agency's jurisdiction. CPSC warns the public and private sectors to reduce exposure to lead and increase consumer awareness. Contact CPSC for further information regarding regulations and consumer product safety.

CPSC

4330 East West Highway
Bethesda, MD 20814
Hotline 1-(800) 638-2772
cpsc.gov

CDC Childhood Lead Poisoning Prevention Branch

The Centers for Disease Control and Prevention (CDC) assists state and local childhood lead poisoning prevention programs to provide a scientific basis for policy decisions, and to ensure that health issues are addressed in decisions about housing and the environment. Contact CDC Childhood Lead Poisoning Prevention Program for additional materials and links on the topic of lead.

CDC Childhood Lead Poisoning Prevention Branch

4770 Buford Highway, MS F-40
Atlanta, GA 30341
(770) 488-3300
cdc.gov/nceh/lead

HUD Office of Healthy Homes and Lead Hazard Control

The Department of Housing and Urban Development (HUD) provides funds to state and local governments to develop cost-effective ways to reduce lead-based paint hazards in America's privately-owned low-income housing. In addition, the office enforces the rule on disclosure of known lead paint and lead hazards in housing, and HUD's lead safety regulations in HUD-assisted housing, provides public outreach and technical assistance, and conducts technical studies to help protect children and their families from health and safety hazards in the home. Contact the HUD Office of Healthy Homes and Lead Hazard Control for information on lead regulations, outreach efforts, and lead hazard control research and outreach grant programs.

U.S. Department of Housing and Urban Development

Office of Healthy Homes and Lead Hazard Control
451 Seventh Street, SW, Room 8236
Washington, DC 20410-3000
HUD's Lead Regulations Hotline
(202) 402-7698
hud.gov/offices/lead/

SAMPLE PRE-RENOVATION FORM

This sample form may be used by renovation firms to document compliance with the Federal pre-renovation education and renovation, repair, and painting regulations.

Occupant Confirmation

Pamphlet Receipt

- ☐ I have received a copy of the lead hazard information pamphlet 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 Owner-occupant

Signature of Owner-occupant

Signature Date

Renovator's Self Certification Option (for tenant-occupied dwellings only)

Instructions to Renovator: If the lead hazard information pamphlet was delivered but a tenant signature was not obtainable, you may check the appropriate box below.

- ☐ **Declined** – I certify that I have made a good faith effort to deliver the lead hazard information pamphlet to the rental dwelling unit listed below at the date and time indicated and that the occupant declined 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 lead hazard information pamphlet 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 or by (fill in how pamphlet was left).

Printed Name of Person Certifying Delivery

Attempted Delivery Date

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 hazard information pamphlet to the owner and/or tenant. Pamphlet must be mailed at least seven days before renovation. Mailing must be documented by a certificate of mailing from the post office.

