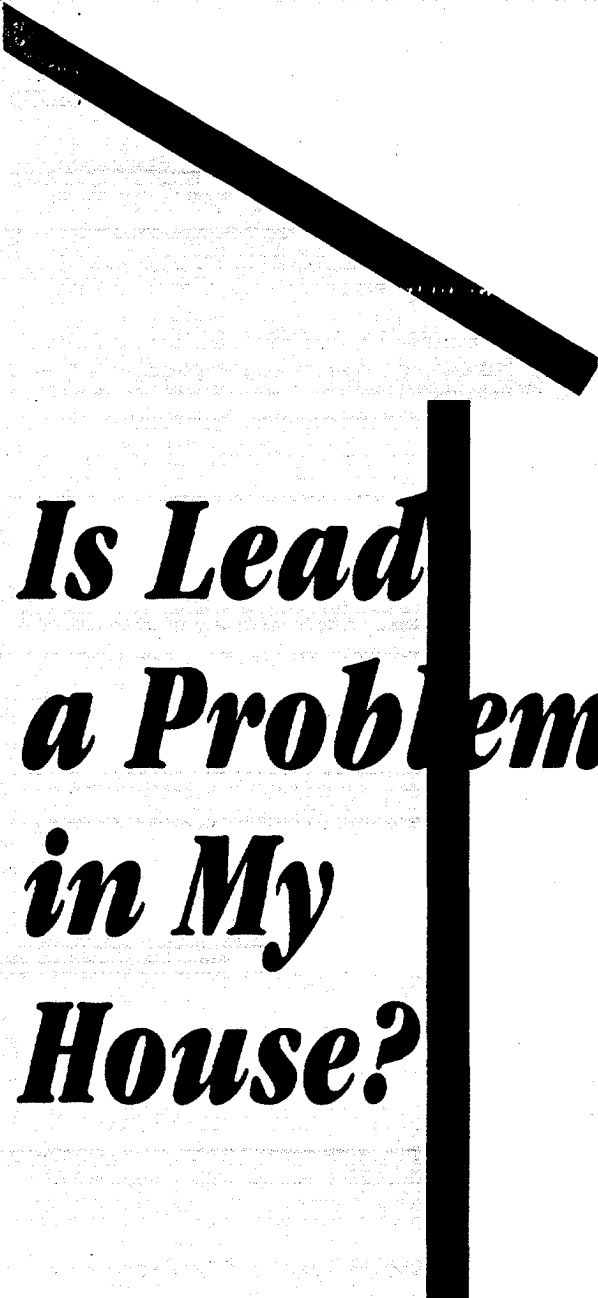




Is Lead a Problem in My House?

**AMERICAN
INDUSTRIAL
HYGIENE
ASSOCIATION**

Recently, the media have carried many stories alerting parents to the potential danger of lead in and around their homes. Unfortunately, practical advice to parents on how to protect themselves and their children has not been widely available.

While public and private research organizations are working to come up with better ways to deal with the presence of lead in the environment and to protect people from the hazard it represents, no one has all the answers.

The American Industrial Hygiene Association (AIHA) has produced this information bulletin to help parents, homeowners, and concerned tenants take steps to determine whether lead is a problem in their homes or communities and identify resources to help reduce exposure.

Where does the lead come from?

Lead is found on the inside and outside of our homes. Some of the most common sources are

- **House paints**—Most houses built prior to World War II had lead-based paint applied to the interior or exterior surfaces. Some paints made before 1977 contained small amounts of lead. Some of these paints still remain inside older homes and may be particularly hazardous if in poor condition (chipped or peeling) or if disturbed by sanding or abrasion (creating lead dust).
- **Lead in the soil**—While lead is a naturally occurring element found in small amounts nearly everywhere, the soil near heavily-used streets and roads may contain lead as a result of past use of lead in gasoline. Lead may also be present in the soil adjacent to houses with lead-based paint. Lead buildup in the soil may contribute to the high levels of lead in household dust.
- **Drinking water**—Some water pipes in older homes may be made of lead or contain lead solder, which can get into the drinking water.
- **Lead from the workplace**—If parents work in industries that use or handle lead (such as car battery plants, radiator shops, or con-

struction trades), work clothing may be contaminated with lead.

- **Hobbies and sports**—Leisure activities where molten lead is handled (e.g., making stained glass windows or reloading ammunition) may result in lead exposure.
- **Others**—Some imported toys and pottery may contain lead paint or glaze. Leaded crystal may be another source of lead.

How does lead get into our bodies?

A certain amount of lead is always in our bodies as a result of the "background" presence of lead in food, water, and naturally-occurring sources in the soil. This small amount of lead does not cause harm in either children or adults. In order for lead to cause lead poisoning, it must get into our bodies above background levels. Lead can enter the body in the following ways.

- If we or our children eat even small chips of lead-based paints or lead-contaminated soil or dust (either directly or from unwashed food or hands).
- If we drink water, tea, or other beverages which contain lead.
- If we or our children breathe dust particles, causing some of them to get caught in the nose and lungs. If those particles contain lead, the lead can be taken into the blood stream.

It is important for you to know that lead does not enter the body through the skin. The skin forms a natural barrier which can keep the lead out.

Who can be hurt the most from lead in and around your home?

Younger children (under six years of age) may be more seriously hurt by lead exposure than adults. Children tend to explore their environments using their sense of taste. This leads to placing objects such as paint chips and dirt into the mouth. At early stages of development, young children are also growing much more rapidly than adults and may be more sensitive to small amounts of lead than adults are. For the same reason, the growing fetus of a pregnant woman may be harmed by lead that does not affect the mother.

been washed regularly? Have carpets and upholstery been vacuumed and cleaned often? Is the paint surface in good condition, and has the interior been painted at least twice in the past 10 to 15 years?

Good maintenance and recent painting, if properly performed (including cleaning of dust), substantially reduce the potential exposure to lead from paint.

You should have walls, woodwork, and trim tested for lead-based paint if your property was built prior to 1977 and

- has been poorly maintained
- has paint in poor condition, or
- you are planning renovations that will disturb the paint surface

In addition, homes that are located next to heavily traveled roads and highways or those that have exterior lead-based paint may have lead contamination in surrounding soil. These homes require additional testing for lead.



How can I have my home tested?

Testing methods range from small home test kits to actual laboratory analyses of paint samples. Ask your local health department for more information about having your home's paint tested, as well as household dust and soil from your yard. You may also want to have drinking water tested for lead. Make sure that you are not using dishes with lead-based glazes for food or drinks, imported toys, or other objects that may be coated with lead-based paints.

The U.S. Department of Housing and Urban Development (HUD) Interim Guidelines on Lead Abatement list qualified laboratories for lead testing. Contact your local HUD office for information. In addition, homeowners can contact AIHA for the names of accredited laboratories in their areas which can perform lead analyses.



Suppose there is lead in or around my house? What can I do?

Experts believe the greatest immediate sources of exposure are household dust containing lead from old paint and contaminated soil. There are precautions you can take, however, to minimize exposure to lead in your home.

What are some of the signs of lead poisoning?

Physical signs of lead poisoning are apparent only after significant exposure has occurred. Only a blood test, as recommended by the Center for Disease Control (CDC), can help bring about an early diagnosis and suitable treatment program. Lead poisoning can cause adults to be irritable, to have poor muscle coordination, and to suffer nerve damage to the sense organs and muscles. Some children may have no apparent symptoms from lead exposure; however, warning signs of lead poisoning can be fussiness, loss of appetite, stomach discomfort, a reduced attention span, inability to sleep, and infrequent bowel movements. Many of these signs can also be caused by other illnesses. You need to check with a physician if you think lead poisoning may be the cause. If caught early, the adverse effects of lead poisoning can be reversed by eliminating exposure or by medical treatment. If lead poisoning goes undiagnosed, severe and irreversible damage to the nervous system can occur.

Are my children at risk of having lead poisoning?

Children living in certain areas or certain types of housing are more likely than other children to come into contact with lead. The surest way to determine whether your children may have lead poisoning is to have their blood tested. Blood tests can be done by your doctor or at a public health clinic.

Of greatest concern to parents is the possible presence of lead dust in the home. This dust may have come from past renovation activities or may simply have been tracked in from contaminated soil outside the home. Regardless of the source, children are at the greatest risk of being exposed when they put toys and other objects in their mouths. It is important to keep children's hands clean to reduce exposure and the risk of lead poisoning.

How can I tell if my home is safe?

First, find out the age of the structure. If the house or apartment was built before 1977, it may contain lead-based paint.

Second, if your home is older, look at how well it has been maintained. Have walls and woodwork

been washed regularly? Have carpets and upholstery been vacuumed and cleaned often? Is the paint surface in good condition, and has the interior been painted at least twice in the past 10 to 15 years?

Good maintenance and recent painting, if properly performed (including cleaning of dust), substantially reduce the potential exposure to lead from paint.

You should have walls, woodwork, and trim tested for lead-based paint if your property was built prior to 1977 and

- has been poorly maintained
- has paint in poor condition, or
- you are planning renovations that will disturb the paint surface

In addition, homes that are located next to heavily traveled roads and highways or those that have exterior lead-based paint may have lead contamination in surrounding soil. These homes require additional testing for lead.

How can I have my home tested?

Testing methods range from small home test kits to actual laboratory analyses of paint samples. Ask your local health department for more information about having your home's paint tested, as well as household dust and soil from your yard. You may also want to have drinking water tested for lead. Make sure that you are not using dishes with lead-based glazes for food or drinks, imported toys, or other objects that may be coated with lead-based paints.

The U.S. Department of Housing and Urban Development (HUD) Interim Guidelines on Lead Abatement list qualified laboratories for lead testing. Contact your local HUD office for information. In addition, homeowners can contact AIHA for the names of accredited laboratories in their areas which can perform lead analyses.

Suppose there is lead in or around my house? What can I do?

Experts believe the greatest immediate sources of exposure are household dust containing lead from old paint and contaminated soil. There are precautions you can take, however, to minimize exposure to lead in your home.



- Thoroughly wash walls, woodwork, windows, and windowsills to remove dust. Use a household cleaning product and change the wash water frequently.
- Thoroughly clean furniture, carpets, and draperies; this may include frequent vacuuming and steam cleaning to remove settled dust and dirt.
- Hose off sidewalks, porches, and steps often so that lead-containing soil or dust isn't tracked into the house. Periodically cleaning doormats can also help reduce the tracking of dirt and soil into the home.
- Cover exposed soil in your yard by planting grass or ground cover.
- Make sure children learn good personal habits—hands and faces should be washed frequently.
- Pay close attention to where your child plays and what goes into the child's mouth.

A "one-time" cleaning will not be enough; it is important that good housekeeping be continued over a long period of time to keep lead dust from returning. Good housekeeping and personal hygiene will help protect children from all lead sources.

▶ If my house has old lead paint, can I take care of the problem myself?

With lead paint in good condition—and only as a temporary measure—you can follow up the wall and woodwork cleaning by covering the lead-containing surface with a couple of coats of interior house paint. If there is concern about toddlers picking at or chewing woodwork or windowsills, it will be necessary to have those items removed and professionally stripped or replaced altogether as part of a comprehensive lead paint removal project.

Complete lead-paint removal is not a project for the do-it-yourselfer! Trained professionals know how to do the job safely and to make sure no lead-containing dust or debris is left behind. Experts recommend that property owners contact the local health department or nearest HUD office for guidance.

Do-it-yourself renovators, even experienced and skilled ones, sometimes make mistakes that can worsen the situation. Never try to sand the old paint; it will add to the buildup of lead dust. And never try to burn the paint off woodwork or trim with a torch