

Lead-Based Paint

Lead has long been recognized as a harmful environmental pollutant. In late 1991, the Secretary of the Department of Health and Human Services called lead the "*number one environmental threat to the health of children in the United States.*" There are many ways in which humans are exposed to lead: through air, drinking water, food, contaminated soil, deteriorating paint, and dust. Airborne lead enters the body when an individual breathes or swallows lead particles or dust once it has settled. Before it was known how harmful lead could be, it was used in paint, gasoline, water pipes, and many other products.

Old lead-based paint is the most significant source of lead exposure in the U.S. today. Most homes built before 1960 contain heavily 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 homes, or other surfaces. Harmful exposures to lead can be created when lead-based paint is improperly removed from surfaces by dry scraping, sanding, or open-flame burning. High concentrations of airborne lead particles in homes can also result from lead dust from outdoor sources, including contaminated soil tracked inside, and use of lead in certain indoor activities such as soldering and stained-glass making.

Health Effects of Exposure to Lead

Lead affects practically all systems within the body. At high levels it can cause convulsions, coma, and even death. Lower levels of lead can adversely affect the brain, central nervous system, blood cells, and kidneys.

The effects of lead exposure on fetuses and young children can be severe. They include delays in physical and mental development, lower IQ levels, shortened attention spans, and increased behavioral problems. Fetuses, infants, and children are more vulnerable to lead exposure than adults since lead is more easily absorbed into growing bodies, and the tissues of small children are more sensitive to the damaging effects of lead. Children may have higher exposures since they are more likely to get lead dust on their hands and then put their fingers or other lead-contaminated objects into their mouths.

Get your child tested for lead exposure. To find out where to do this, call your doctor or local health clinic. For more information on health effects, get a copy of the Centers for Disease Control's, Preventing Lead Poisoning in Young Children (October 1991).

Ways to Reduce Exposure to Lead

- **Separate remodeling areas from living areas.**

It is important to keep the remodeling work, and dust associated with the work, separated from other areas in the home. This can be done using barriers, an exhaust ventilation strategy, and good work practices as described in HUD's 1999 *Lead Paint Safety: A Field Guide for Painting, Home Maintenance, and Renovation Work*. Make sure your contractor is aware of these practices, and ask him or her to use them. U.S. Department of Housing and Urban Development's Office of Healthy Homes and Lead Hazard Control - HUD

- **Keep areas where children play as dust-free and clean as possible.**

Mop floors and wipe window ledges and chewable surfaces such as cribs with a solution of powdered automatic dishwasher detergent in warm water. (Dishwasher detergents are recommended because of their high content of phosphate.) Most multi-purpose cleaners will not remove lead in ordinary dust. Wash toys and stuffed animals regularly. Make sure that children wash their hands before meals, nap time, and bedtime. These practices are important at all times, however, pay special attention during remodeling work.

- **Reduce the risk from lead-based paint.**

As mentioned above, most homes built before 1960 contain heavily leaded paint, and some homes built as recently as 1978 may also contain lead paint. This paint could be on window frames, walls, the outside of homes, or other surfaces. Do not burn painted wood since it may contain lead.

- **Leave lead-based paint undisturbed if it is in good condition** - do not sand or burn off paint that may contain lead.

Lead paint in good condition is usually not a problem except in places where painted surfaces rub against each other and create dust (for example, opening a window).

- **Do not remove lead paint yourself.**

Individuals have been poisoned by scraping or sanding lead paint because these activities generate large amounts of lead dust. Consult your state health or housing department for suggestions on which private laboratories or public agencies may be able to help test your home for lead in paint. 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-based paint. Occupants, especially children and pregnant women, should leave the building until all work is finished and clean-up is done.

- **Do not bring lead dust into the home.**

During remodeling, avoid tracking dust from the work area throughout the rest of the home. It is also important to avoid bringing lead in from other sources. If you work in construction, demolition, painting, with batteries, in a radiator repair shop or lead factory, or 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 soil around your home. Soil very close to homes may be contaminated from lead paint on the outside of the building. Soil by roads and highways may be contaminated from years of exhaust fumes from cars and trucks that used leaded gas. Use door mats to wipe your feet before entering the home. If you work with lead in your job or a hobby, change your clothes before you go home and wash these clothes separately. Encourage your children to play in sand and 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.

- **Find out about lead in drinking water.**

Most well and city water does not usually contain lead. Water usually picks up lead inside the home from household plumbing that is made with lead materials. The only way to know if there is lead in drinking water is to have it tested. Contact the local health department or the water supplier to find out how to get the water tested. See EPA's Lead in Paint, Dust and Soil page - www.epa.gov/lead/pubs/leadinfo.htm See also, EPA's web site - www.epa.gov/lead, for more information about what you can do if you have lead in your drinking water. Call EPA's Safe Drinking Water Hotline (800-426-4791) for more information.

- **Eat right.**

A child who gets enough iron and calcium will absorb less lead. Foods rich in iron include eggs, red meats, and beans. Dairy products are high in calcium. Do not store food or liquid in lead crystal glassware or imported or old pottery. If you reuse old plastic bags to store or carry food, keep the printing on the outside of the bag.