

Preventing Childhood Lead Poisoning



What is Lead Poisoning?

Too much lead in the body can cause serious damage to the brain, kidneys, nervous system and red blood cells. High levels can cause retardation, convulsions, coma and sometimes death. Low levels can slow a child's normal development and cause learning and behavioral problems.

Children are more sensitive to lead poisoning than adults because their nervous systems and body organs are growing and changing rapidly. Also, children are more efficient at absorbing lead into their bodies than adults and have more hand-to-mouth activity.

How Do Children Become Lead Poisoned?

Many exterior and interior house paints sold before 1978 contained lead. Many older homes have surfaces painted with lead-based paint. Lead poisoning can be caused when children eat, chew, or suck on lead painted objects such as window sills, railings, toys, or furniture. Lead poisoning can also be caused by young children's normal hand-to-mouth activity if there is lead in the household dust or soil. Lead dust may be created as paint ages and breaks down into powdery dust. Renovation activity such as stripping, scraping, sanding, grinding, torch burning, or sandblasting old paint can also create lead dust. Dirt near busy streets may contain lead dust from cars which used leaded gasoline.

What are the Symptoms of Lead Poisoning?

Most children have no symptoms. When children do have symptoms, the symptoms are often similar to common childhood complaints such as headaches, irritability, tiredness, lack of appetite and stomach aches. Because these symptoms are not specific, parents and physicians may not suspect lead poisoning. A blood test is the only sure way to detect lead poisoning.

Who Should be Tested and How Often?

Screening for lead poisoning should be part of a normal health program, and children 6 years and under, should be tested at least once a year. Children ages 6 months to 3 years should be tested every 1-12 months, depending on the blood lead level, and whether they are at high or low risk for lead poisoning. Steps to prevent lead exposure in an individual child should be taken when a child's blood lead level is 15 micrograms of lead per deciliter of blood (ug/dL). If a child's blood level is 20 ug/dL or more, the child should receive medical follow-up and a home inspection.

HOUSEHOLD SOURCES OF LEAD

✓ Painted Surfaces

- window sills and wells
- door frames and sills
- walls
- woodwork
- floors and stairs
- porches, outbuildings
- railings and banisters
- toys and play equipment
- furniture
- some antique baby furniture

✓ Water

- in Wisconsin, some pipes installed before 1972
- some solder used in pipes before 1984

✓ Food

- grown in contaminated soil
- stored in lead-glazed pottery
- contaminated by dust and residue from the air or hands
- from cans with sealed lead solder seams
- some ceramics, leaded crystal glassware

✓ Soil

- near lead painted buildings that have weathered or been scraped or sandblasted
- near busy roads
- near orchards and other areas sprayed with lead arsenate

✓ Air-borne Sources

- dust and fumes from lead painted materials that have been burned, sandblasted, or heated
- fumes from auto and industrial emissions
- dust spread by people who work with lead
- dust created by removing lead paint during home renovation projects

TIPS TO PREVENT LEAD POISONING

- Have your home inspected** or send paint samples to a laboratory for analysis (a list of laboratories follows).
- Have your child tested** regularly.
- Get your soil tested** if you suspect it may be contaminated.
- Get your water tested.** If you suspect that you may have lead in your water, run the water for 2 or 3 minutes each morning before using it for cooking or drinking. Don't use hot water for cooking or drinking.
- Wash dusty surfaces**, especially floors, window sills and wells with tri-sodium phosphate (TSP) available in hardware stores. Be sure to rinse after washing.
- Wash your own and your child's hands** frequently.
- Cover lead-based paint** on chewable surfaces.
- If your job exposes you to lead, **shower and change clothes** before you come home.
- Provide well balanced meals**, low in fat and high in iron and calcium.
- Remove or cover contaminated soil** with clean soil and grass.
- Notify neighbors with children** before beginning exterior renovations.
- Remember the risk factors and sources of lead poisoning covered in this brochure.**

Legal Issues

WISCONSIN CHAPTER 151

According to Wisconsin law Chapter 151, "Prevention of Lead Poisoning or Lead Exposure," all health professionals and laboratory directors must report blood lead test results of 25 micrograms per deciliter of blood or greater to the Wisconsin Department of Health and Social Services (DHSS). The U.S. Centers for Disease Control in October 1991 stated that "blood lead levels at least as low as 10 ug/dL are associated with adverse health effects." Under Wisconsin law, DHSS is required to adopt the definition of lead poisoning or lead exposure which corresponds to the specification of the Centers for Disease Control. DHSS will issue rules to adopt 10 ug/dL as the definition of lead poisoned or lead exposed.

Under Chapter 151, Wisconsin DHSS or local public health officials may inspect dwellings for the presence, location and condition of lead-bearing paints. If the DHSS (or local health agency) determines that lead-bearing paints are present in or upon any dwelling, the department may notify the owner and "issue instructions to remove, replace or cover securely and permanently these paints within 30 days, in a manner the department prescribes."

If the property owner fails to correct the hazards within 30 days, this shall be evidence of negligence in any legal action for damages or injuries. Violations are enforced by county district attorneys and subject to fines of \$1,000 per day, with each day of continued violation considered as a separate offense.

WISCONSIN CHAPTER 709

As of September 1, 1992, persons who sell one-to-four family residential real estate must disclose if they are aware of unsafe concentrations of, or unsafe conditions relating to lead in paint, lead in soil or lead in water supplies or plumbing system.

WISCONSIN CHAPTER 704.07 (4)

This chapter provides tenants with rights if a property becomes untenable because of health hazards.

Lead Paint Removal

Removing lead paint is dangerous and can cause increased lead exposure to workers and to children. You may want to find experienced and trained professionals to do the work. You must take precautions to prevent lead paint dust and debris from contaminating the air, the inside of the home or the soil outside. Capture all lead dust and debris and be sure it gets to a secure landfill. Children and pregnant women should be kept out of the work area until the work is done and the area has been thoroughly cleaned.

Preferred Lead Removal Methods

These 8 methods create less lead dust than other methods:

1. Replace windows, window sills, doors, porch or stair railings, banisters or other woodwork or trim with new unpainted products.
2. Remove woodwork and send it to a business that chemically strips off the old paint.
3. Cover interior walls or ceilings with wallboard or panelling.
4. Cover exterior walls with vinyl or aluminum siding.
5. Install vinyl or aluminum window sash tracks.
6. Cover window wells with durable products (sheet metal or fiberglass cloth and adhesive).
7. Cover floors with plywood or linoleum and stairs with rubber tread and metal edges.
8. Cover lead painted non-friction surfaces with durable products such as fiberglass tape.

A simple low cost option is to wet down leaded paint and wet scrape it off in large pieces. This is safer than methods which generate small dust particles. Chemical paint removers create less dust in air, but the dissolved paint is hard to clean up.

Clean Up is Crucial to the Success of Any Lead Abatement Project

1. After you have scraped and removed the loose paint, wash the surfaces with a phosphate solution (mix 1 cup automatic dishwasher detergent that contains at least 5% phosphate into a gallon of water) and then rinse with clean water before repainting (use gloves).
2. Use a HEPA (high efficiency particulate air) vacuum to remove lead dust and debris. These may be available from your local health department.
3. Take dust wipe samples before reoccupancy to determine if clean-up has been effective.
4. Wash hands before eating or drinking.
5. Change work clothes and shoes before entering your car or any occupied area.

Avoid Unsafe Methods of Lead Paint Removal

Any method that attempts to remove lead paint from the underlying surface is dangerous. The following methods generate hazardous amounts of lead in the air, and are **NOT** recommended:

- open flame torches,
- heat guns,
- electric grinding,
- sandblasting and sanding.

Children in homes where lead is improperly removed often experience increased lead exposure.

Where Can I Get Help if My Child is Poisoned?

If your child has high blood lead levels, your physician will choose a treatment based on the blood test results. An important part of any treatment is to prevent future exposure to lead. Your home should be inspected inside and outside to identify the sources. If lead is found, the law requires lead hazards in paint, plaster or other material to be removed or covered.

Wisconsin Lead Information

Wisconsin Division of Health's Childhood Lead Poisoning Prevention Program will provide information about lead screening for children. Call 608-266-1826 for this information. For environmental lead information call 608-266-5885 or 608-266-7897.

WISCONSIN LEAD TESTING RESOURCES

Blood

Blood samples can be taken at your doctor's office or in some local public health agencies or WIC clinics. The following labs are certified by the Centers for Disease Control and will provide advice on blood lead testing procedures.

State Lab of Hygiene
608-262-1146

West Allis Hospital Lab
414-546-6313

City Milwaukee Health Department
414-286-3526

Marshfield Clinics
715-387-5317



Paint Testing and Environmental Evaluation:

The Wisconsin Division of Health's Childhood Lead Poisoning Prevention Program will help coordinate testing for lead in homes of children whose blood lead is high. Call 608-266-5885 or 608-266-7897 for information.

The State Lab 608-263-6550 can test air, paint, and dust samples for lead.

Contact your local public health department which should have access to paint testing equipment.

Water

State Lab of Hygiene
608-262-1293

DNR certified labs
608-266-0821

Soil

UW Soils Lab
Madison 608-262-4364
Milwaukee 414-229-4894

State of Wisconsin
Department of Health & Social Services
Division of Health