



Get the Lead Out *Facts About*

The Medical Consequences of Lead Poisoning

What is lead poisoning?

Lead poisoning is the presence of too much lead in the body. It is caused by exposure to lead that is either eaten or breathed, in the form of dust. The body carries the lead in the blood to soft tissues and bones, where it can be stored for many years. Lead harms several organs, including the nervous system and kidneys.

What are the symptoms of lead poisoning?

Lead poisoning has no obvious signs, and most children do not report any abnormal symptoms. Children with high blood lead levels might exhibit:

- stomachaches
- poor appetite
- hyperactivity
- sleeping problems
- irritability
- constipation

Because these symptoms mimic other childhood problems, lead poisoning is sometimes mistaken for a cold or the flu. Symptoms at very high levels of lead poisoning may include:

- vomiting
- weight loss
- dizziness
- convulsions
- lethargy

What other problems can lead poisoning cause?

There is no safe level of lead in the body. Lead poisoning is related to a number of serious health concerns. Blood lead levels less than 10mcg/dL, are associated with health problems. Children may suffer from:

- learning disabilities
- mental retardation
- behavioral problems
- lowered intelligence
- stunted growth
- hearing loss

Coma and death can occur at higher lead levels. Some recent studies link childhood lead poisoning to problems later in life, such as academic failure, juvenile delinquency and high blood pressure.

Why are children at a greater risk for lead poisoning?

Children are at greatest risk of lead poisoning because their small bodies absorb more lead than adult bodies do, and the lead hurts them more because their bodies are still growing. Lead often targets the developing brain and nervous system. The effects of lead are often permanent, so any damage that occurs in childhood could last throughout a child's lifetime.

Children are also more likely to absorb lead dust due to hand-to-mouth behaviors. They are more likely to place hands and other objects that may carry lead dust into their mouths. Their closeness to the floor places children at greater risk of contact with contaminated dust and dirt which they may ingest when they put their hands or toys in their mouth. Children who eat non-food items have a greater risk of lead exposure through lead contaminated items such as soil and lead paint chips from peeling paint.

Even unborn children can be hurt by lead. A pregnant woman will pass an equal amount of lead from her blood to the blood of her unborn baby, causing damage similar to the problems associated with postnatal lead exposure. Women with elevated lead levels may deliver premature babies or babies with low birth weight. These children are more likely to have language and intellectual delays later in life.

How can I tell if my child has lead poisoning?

The only way to diagnose lead poisoning is with a blood test. A doctor or nurse takes blood from a child's finger or arm. The blood sample is sent to a laboratory to find out how much lead it contains. Public health activities begin at a level of 10 mcg/dL or greater.

All children from 6 months through 6 years of age should be assessed every year for their risk of exposure to lead. Illinois state law requires all children entering day care, preschool or kindergarten to provide proof of a blood lead test or assessment. To find out how to test your child, call your doctor or local health department.

How is lead poisoning treated?

For children with blood lead levels of 70 mcg/dL or higher, special drugs are used for treatment. These medications are given by mouth at home or in the hospital. Medicines do not cure lead poisoning and its effects. Physicians begin treatment at 45 mcg/dL. The medicine attaches to the lead and pulls it out of the body with the urine to prevent serious health complications.

Children with lower blood lead levels often do not need special medicine. Maintaining a healthy diet may lower their risk of future lead absorption. Foods high in iron, calcium and vitamin C are recommended.

A nurse may send information or visit the home to educate parents about ways to lower the child's blood lead level. The nurse also will remind parents of the child's next screening appointment. Follow-up blood testing is very important to assure that the child's lead level is decreasing. If the levels continue to be high, an inspection, conducted by the local health department, will be necessary to identify the sources of lead in the home so these hazards can be removed or corrected.

How can lead levels be lowered?

Lead poisoning can be reduced by taking simple precautions around the house that prevent lead exposure. These methods include the following steps:

- Cleaning up paint chips and peeling paint by wet washing
- Washing floors, counter tops and window sills often with an all-purpose detergent or a detergent specifically made to remove lead dust
- Feeding children a diet high in iron, calcium and vitamin C
- Assuring that children and pregnant women do not enter a work area until renovations are complete and the area has been thoroughly cleaned
- Washing a child's hands, mouth and face before eating/drinking
- Washing toys and security blanket often
- Allowing the cold water to run for several minutes before using it for drinking, cooking or mixing infant formula in case lead pipes or lead solder are present
- Removing shoes when coming indoors so lead dust is not tracked inside
- Covering bare soil around house perimeter if lead paint has been used on exterior in the past
- Laundering work clothes separately from other clothes
- Not serving or storing food in pottery made outside the United States
- Avoiding home remedies and foreign food additives
- Using lead free dishes
- Using proper safety measures when renovating or remodeling your house
 - Keep children and pregnant women away from work areas
 - Use heavy plastic below work area to contain dust and paint chips
 - Wet surface before sanding
 - Change clothes and shoes, and wash hands before leaving work area
 - Clean work area with water containing detergent

For more information on lead poisoning, please contact the Illinois Department of Public Health at 217-782-3517, 866-909-3572, or TTY (hearing impaired use only) 800-547-0466; or call your local health department.