

Preventing Lead Poisoning in Children



Highlights

Lead is highly toxic and causes serious health problems, especially in young children.

Lead poisoning can occur after a single high-level exposure or from ongoing exposure.

Lead poisoning can be diagnosed with a blood test.

In This Article

What is lead?

What is lead poisoning?

What are the symptoms of lead poisoning?

What causes lead poisoning?

How is lead poisoning diagnosed?

How is lead poisoning treated?

How can lead poisoning be prevented?

Living in and renovating older homes

Exposure to lead at work

Your child's diet and lead

Complications of lead poisoning

Tools and Assistance

What is lead?

Lead is a naturally occurring heavy metal. Common sources of lead exposure include:

Water from lead-lined pipes

Lead dust

Lead-contaminated soil

Lead-based paint

Lead is highly toxic and poses serious health risks, especially for young children, who are more vulnerable because they:

Put their hands and other objects in their mouths

Absorb more lead than adults

Have developing brains that are more sensitive to lead

There is no safe level of lead exposure.

What is lead poisoning?

Lead poisoning is rare but can be life-threatening. It occurs when a person has high levels of lead in their blood.

Lead poisoning can happen after a single high-level exposure (acute exposure) or due to ongoing exposure (chronic exposure).

Lead can enter the body through:

Inhalation - breathing in lead particles

Ingestion - consuming lead-contaminated materials

Even a small amount of lead-based paint can raise lead levels in a child's blood for weeks, with some remaining in the body for life. Lead affects nearly every organ and system.

What are the symptoms of lead poisoning?

Lead poisoning often has no obvious symptoms in children. Lead can build up gradually and impact:

- Physical growth
- Blood cell development
- Kidney function

Acute lead poisoning from high exposure can cause:

- Tiredness
- Weakness
- Headache
- Altered consciousness and seizures
- Abdominal pain
- Nausea and vomiting

Chronic exposure can lead to:

- Poor concentration
- Headaches
- Learning difficulties
- Irritability
- Poor coordination
- Abdominal pain
- Weight loss
- Kidney problems

Lead exposure during pregnancy can affect the unborn baby. It can also be passed through breast milk.

What causes lead poisoning?

Older homes often contain lead-based paint. Paint chips and dust contaminated with lead-based paint are common sources of exposure, especially for young children who put objects in their mouths.

Lead can also be found in:

Some plumbing and pipes

Certain art supplies

Pewter items not marked "lead-free"

Glazed pottery or ceramic containers used for food storage

Soil contaminated by industrial activities or past lead use

Some toys, particularly imported or older ones, may contain lead-based paint.

How is lead poisoning diagnosed?

Lead poisoning is diagnosed with a blood test. If lead exposure is suspected, a doctor can test for it.

If a child has swallowed an object containing lead, an X-ray may be required.

How is lead poisoning treated?

Treatment depends on the type of lead exposure and the availability of medications.

How can lead poisoning be prevented?

Steps to reduce lead exposure include:

Frequently washing children's hands

Cleaning children's toys regularly

Bathing pets regularly

Wet-mopping floors and stairs frequently

Cleaning windowsills to reduce dust

To minimize exposure, be cautious of:

Renovating older houses

Hobbies involving lead, such as pottery glazing, stained glass, or making fishing sinkers

Certain occupations, such as mining and smelting

Living in and renovating older homes

If living in an older home with lead-based paint, consider:

- Asking visitors to remove their shoes before entering
- Planting bushes near walls to prevent children from playing close to them
- Having water tested for lead contamination
- Using cold water for drinking and cooking, as hot water can contain higher lead levels
- Testing home paint for lead before renovations
- Hiring professionals for lead paint removal if needed
- Keeping children away from renovation areas
- Properly disposing of lead-containing materials

Exposure to lead at work

Lead dust from the workplace can be carried home on clothing. To reduce exposure:

- Shower and change clothes before coming home
- Keep work clothes separate from everyday clothing

Your child's diet and lead

A balanced diet can help reduce lead absorption. Nutrients that may help include:

- Iron: Helps reduce lead absorption
- Calcium: Competes with lead and reduces its absorption
- Vitamin C: Helps the body excrete lead

Complications of lead poisoning

Lead exposure in childhood can lead to:

- Learning disabilities
- Behavioral and attention problems
- Hearing and speech difficulties

Delayed bone and tooth development

In severe cases, lead poisoning can be life-threatening.

Tools and Assistance

For more information, visit health and environmental organizations that provide guidance on lead exposure and safety.