

Lead Poisoning

Lead is a highly toxic metal. Many alternatives to lead have been identified, but it is still used in some industries. To stay safe and healthy, we must limit and monitor exposure to lead.

Sources

Lead is a naturally occurring, bluish-gray metal in the Earth's crust. People may inhale lead dust or fumes in the air or ingest it when they touch lead and then consume food or drinks. Lead may be pure, or it may combine with other elements to form compounds. Pure lead does not dissolve in water, but some lead compounds can dissolve.

Sources of lead may include:

- Batteries
- Metal products
- Paint
- Ammunition
- Cable covering
- Gasoline/petroleum
- Burning solid waste/coal/oils
- Emissions from iron/steel production
- Lead smelters

Health Effects

Your body can absorb lead when you inhale it in the air, ingest it due to contaminated items/hands or expose open wounds to it. The health effects of lead are the same no matter how it enters your body. However, the body absorbs lead most easily when people breathe it in. Lead may reach various organs and body tissues through the bloodstream. Your body will store any lead it can't get rid of in your teeth, bones, organs and tissues where it can cause irreversible damage to cells, organs and whole-body systems. Stored lead continues to cause damage even after the initial exposure.

Early symptoms of lead exposure may include:

- Nausea
- Headaches
- Sluggishness
- Vomiting
- Gastrointestinal irritation and pain
- Diarrhea
- Loss of appetite
- Colic (abdominal pain)
- Weakness
- Dehydration

Because these are common conditions, people may not realize they are due to lead poisoning.

Long-term effects of lead include:

- Anemia
- High blood pressure
- Heart, kidney and brain damage
- Seizures
- Cancer
- Infertility
- Coma
- Death

If you are pregnant, lead can harm your baby. It can cause neurological effects and disabilities in babies or cause the mother to experience miscarriage or stillbirth.

Safety Measures

Your employer will determine when lead exposure is a concern and will then **monitor** your exposure to lead using testing devices such as air sampling, surface wipes and portable x-rays on surfaces. They must make sure lead doesn't exceed occupational exposure limits set by industry standards and your government to protect your health and wellbeing.

Employers must **record all monitoring results** and make them available to employees. Ask your supervisor if you have any questions or concerns about the monitoring and recordkeeping processes.

Ventilation systems may remove lead from the air or dilute it to safe levels.

Check with your supervisor to learn the specific lead exposure hazards in your workplace. Look for and respect **signs** that warn about lead and precautions to take.

Keep all surfaces **as free as possible from accumulated lead dust**. Vacuum with a high efficiency particulate (HEPA) filter. Do NOT use compressed air to clean floors and other surfaces.

When lead is in the air, it may settle on your clothes and body. If you don't **clean**, everywhere you go becomes contaminated too. If you eat, drink, apply cosmetics or use tobacco with lead on your hands or face, you risk ingesting it.

Your employer must provide you with free **protective clothing and equipment** in areas that exceed the occupational exposure limit for lead. This includes:

- Coveralls or full-body work clothing
- Hats
- Face shields
- Gloves
- Shoes or disposable shoe covers
- Vented goggles
- Respirators

Your employer will provide you with training and fit testing, as needed.

When lead levels exceed the occupational exposure limit, use a **designated change room** to:

1. Carefully remove contaminated clothing.
2. Place it in labeled containers and close them.
3. Shower.

Your employer provides **designated break areas** that have filtered air. This is the only place you may consume food or drinks or use cosmetics or tobacco products.

Overexposure

Immediately notify your employer if you:

- Develop signs or symptoms of overexposure
- Want medical advice concerning a current/past exposure

Your employer will provide you with appropriate medical examinations or consultations.

If you have been exposed to lead above the occupational exposure limit, your employer may be required to provide you with medical surveillance that includes an exam by a physician and a blood test.

Check with your supervisor or government to learn about your rights and your employer's responsibilities regarding potential exposure to lead.

When you have been overexposed to lead, your employer may be required to reassign you to a job that has low or no lead exposure.

The reassignment should not result in any loss of earnings, seniority or other employment rights or benefits.

You may not be reinstated to work around lead unless or until your blood tests reveal that the lead is no longer present at unsafe levels.

REMEMBER: Check with your supervisor or government to learn about your rights and your employer's responsibilities regarding potential exposure to lead.