

Occupational Lead Exposure:

An Alert for Workers



Your workplace can expose you to lead.

Lead can harm your health and your family's health.

You can protect yourself and your family.

Many resources are available to help you deal with lead exposure in the workplace and the health problems caused by lead poisoning.

Your employer, your doctor, the Department of Labor & Industries, the SHARP (Safety & Health Assessment & Research for Prevention) Program, and the Department of Health can help — at no cost to you.

What is lead?

Lead is a metal found in small amounts in the environment. Lead can be found in the air, soil, water and inside homes. Modern day uses of lead include manufacturing ammunition, batteries, chemical compounds, explosives, glassware and metal products. Lead is also used in containers and pipes to prevent rust and corrosion, and most steel bridges are painted with lead-based paint.

Lead in the workplace

Although the toxic effects of lead have been known for centuries, lead exposure is still widespread in the United States. Overexposure to lead is common in certain industries and jobs.

Industries in Washington State with the highest number of worker blood-lead reports, from 2010–2015 Occupational Lead Exposure Registry data:

- Paint and wall covering contractors, especially bridge repair work
- Storage battery manufacturing
- Firing ranges
- Glass manufacturing
- Metal manufacturing and recycling

Jobs and work activities associated with lead poisoning:

- Steel bridge maintenance
- Thermal stripping or sanding of paint that contains lead
- Welding or cutting of metal painted with paint that contains lead
- Demolition of structures containing lead
- Battery manufacturing and recycling
- Working at firing ranges
- Scrap metal handling
- Masonry
- Lead, brass or copper smelting
- Lead fishing weight production
- Machining and grinding lead alloys

- Radiator manufacturing and repair
- Lead soldering
- Ceramic glaze mixing
- Home renovation/remodeling

Lead away from work

You may carry lead dust home on your work clothes, work shoes or areas of the body not covered by protective clothing (such as hands or hair). Lead can harm the health of others in your home. Young children are very sensitive to lead's harmful effects. If a pregnant woman is exposed to lead, it may harm her unborn child.

Some hobbies expose you to lead. Creating leaded glass pieces, using pottery glazes containing lead, firearm use (especially at indoor gun ranges) or pouring your own fishing weights may expose you to harmful levels of lead.

Lead exposure and your health

Lead enters the body in two ways:

- Breathing in lead dust, mist or fumes.
- Swallowing lead dust from your hands or face or from your food, drinks or tobacco.

Eating, drinking or using tobacco without first washing hands increases lead exposure.

Why should I care about lead poisoning?

Even if you are exposed to small amounts of lead, it can build up in your body and stay there for a long time. Too much lead in your body can damage your brain, nerves, kidneys and blood cells. Lead can also cause infertility in men and harm unborn babies.

Many people with high lead levels do not feel sick or poisoned. Some of the early symptoms of lead poisoning or overexposure may include:

- Nausea, depressed appetite, stomach aches or cramps
- Muscle or joint aches
- Headache, trouble concentrating, irritability or depressed mood
- Tiredness or problems sleeping

If you experience any of these symptoms, or suspect you have been overexposed to lead, notify your employer and contact your doctor.

Understanding your blood lead test

The most common test for lead is called the blood-lead level test, which measures how much lead is in your bloodstream in micrograms of lead per deciliter of blood ($\mu\text{g}/\text{dl}$).

Is there a problem?

Blood-lead levels above $5 \mu\text{g}/\text{dl}$ are considered to be harmful to adults. Immediately notify your employer if you develop signs or symptoms associated with lead poisoning or if you need medical advice concerning the effects of current or past exposure to lead or your ability to have a healthy child.



Your employer's responsibilities

Under federal and state regulations, employers have a responsibility to protect workers from harmful lead exposure. This includes making sure that lead in the air of the workplace is not above the permissible exposure limit set by state or federal regulations.

Your employer is responsible for providing you with a safe and healthful workplace. If there is lead in the workplace, your employer must comply with standards established to prevent harmful exposures to lead. Your employer may be required to provide you with:

- Protective equipment including respirators at no cost to workers.
- A copy of air monitoring results.
- A copy of the lead standard.
- Medical monitoring or examinations (including periodic blood-lead testing).
- A transfer to a job free from lead exposure without loss of pay or benefits (also known as "medical removal").

- Training on how to prevent lead exposure and take-home lead.
- Clean areas for workers to eat, shower and change.

Protecting yourself with safe work practices

There are some things you can do right away to protect yourself and your family from lead exposure:

- Work in a well-ventilated area, and use local exhaust ventilation when available.
- Wash your hands and face before you eat, drink or smoke.
- Eat, drink and smoke only in areas free of lead dust and fumes.
- Work with your employer to ensure that you are not overexposed to lead in your workplace. Sometimes this may include special ventilation equipment or using a properly fitted respirator.
- When cleaning up dust that contains lead, don't dry sweep or blow. Wet cleaning and vacuuming are generally safer.
- Wear separate work clothes and work shoes/boots at work.
- Launder your work clothes at work. If you must take work clothes home, wash and dry them separately.
- If possible, shower at work before going home.
- Keep your street clothes in a clean place and change after showering.

Washington ABLES Program

The Adult Blood Lead Epidemiology and Surveillance (ABLES) Program tracks where high blood-lead levels are occurring and increases awareness about lead exposure and health effects among workers and employers.

In Washington State, the ABLES Program is administered by SHARP (Safety & Health Assessment & Research for Prevention), a program within the Department of Labor & Industries.

SHARP receives workplace-related adult blood-lead data from the Washington State Department of Health, stores the data in a database, mails educational materials and conducts confidential telephone interviews with lead-exposed workers. SHARP contacts employers if particularly high exposures are consistently seen in the workplace.

Additional resources

Your doctor or other health care provider

See a doctor if you are concerned about lead overexposure for yourself or others in your household. The doctor can arrange to test your blood-lead level and help you interpret any exposure and health effects. It is important for your doctor to know about your lead exposure even if you don't have any symptoms.

An occupational physician is trained to recognize diseases associated with work and may be able to diagnose a lead-related disease more readily than a doctor not trained in occupational illnesses.

Your safety officer or industrial hygienist

Find out if your work area has been checked for lead dust or fumes and how you can avoid exposure by using protective equipment and engineering controls.

SHARP Program

L&I's SHARP Program can provide further information on work-related lead poisoning to interested employers, workers and health professionals. Call 1-888-667-4277 or 360-902-4728, or visit www.Lni.wa.gov/SHARP.

Division of Occupational Safety and Health

L&I's Division of Occupational Safety and Health (DOSH) enforces the worker protection rules for workplaces with lead and investigates complaints from workers and concerns from health care providers. It also offers free assistance and information to both workers and employers upon request. Call 1-800-423-7233, or visit www.Lni.wa.gov/Safety.

Washington State Department of Health

The Washington State Department of Health provides information and resources on reducing children's exposure to lead. Call 360-236-4280 for more information, or visit www.doh.wa.gov/lead.

Lead dust isn't just a health risk to workers!

Lead taken home on clothing and other contaminated materials can cause lead poisoning in children.

Upon request, foreign language support and formats for persons with disabilities are available. Call 1-800-547-8367. TDD users, call 360-902-5797. L&I is an equal opportunity employer.