

Occupational Lead Exposure:

An Alert for Employers



How workers and owners can be overexposed to lead dust and fumes

Lead enters the body when airborne lead fumes or fine lead dust is inhaled. This can happen if ventilation systems are ineffective or if respirators aren't used properly.

Lead dust also can be ingested. This happens if workers eat, drink or smoke in areas with lead dust, or if they don't wash their hands carefully before putting something they have touched into their mouths.

Lead dust from work also may be taken home on hair, clothing and shoes where it can poison other people in the household. Pregnant women and young children are especially at risk. In children, lead can cause behavioral problems and slow mental development.

Symptoms of lead poisoning may not be noticed right away, even though lead is building up in the body

Over time, lead can damage the brain, blood, nerves, kidneys and reproductive organs. Lead-poisoned workers can have permanent disability including memory loss, extreme fatigue, emotional problems, even kidney failure or death.

Lead also threatens business

The cost of lead poisoning can include medical bills, workers' compensation claims, lost work time, poor morale and low productivity. Businesses with serious violations may be subject to fines.

What is the Lead Standard?

The federal and state Lead Standard for general industry (WAC 296-62-07521) and for construction (WAC 296-155-176) requires employers to follow specific rules to protect their workers from harmful lead exposure and blood-lead poisoning.

Employers must:

- Test workplace concentrations of airborne lead and ensure that lead concentrations do not exceed the PEL (permissible exposure limit).
- Train workers on lead hazards and lead-safe work practices.
- Provide blood-lead testing at regular intervals for all workers who work in areas with airborne lead above a specific limit.
- Provide adequate respiratory protection at the request of workers and when needed.
- Develop a respiratory protection program (WAC 296-842) that includes medical evaluations, respirator fit-testing, training, cleaning and storage.
- Provide complete medical evaluations of workers.
- Provide clean change rooms, showers and lunchrooms for workers exposed to lead above a specific limit.

What else does it require?

A worker must be removed from lead exposure if a blood-lead test exceeds the medical removal level. This means that the worker must either be sent home or reassigned to work in a lead-free area until the levels come down.

During this period, the worker must continue to receive *full salary and benefits and maintain seniority*. If a workers' compensation claim is filed, the employer must make up the difference between the time-loss payments and the worker's usual income.

Workers may also be removed from lead exposure by a physician if they have a medical condition that could be worsened by exposure to lead. Workers are protected against loss of earnings, seniority or other employment benefits for 18 months during medical removal. **The employer must pay earning protection even if there is no other job available for the worker.**

If a worker's blood-lead level is above a specific limit, employers must provide at least one medical evaluation each year (including a fertility test in men or pregnancy test in women if the worker requests it) and blood-lead tests every one or two months, **at no cost to the worker.**

Medical evaluations must be performed as soon as possible if a worker develops signs or symptoms commonly associated with lead poisoning. **It is the employer's responsibility to make sure that the medical evaluations are performed.**

As an employer, what can I do to prevent lead poisoning?

- Reduce airborne lead by installing effective fume and dust collecting ventilation systems, and check them often to make sure that they are working properly.
- Business and trade associations can also give advice on ventilation systems and equipment for specific industries.
- Clean up lead dust and keep all surfaces as lead-free as possible. Do not use compressed air or dry sweeping to remove lead dust. Use a vacuum with a high-efficiency (HEPA) filter or a wet cleaning method.
- Keep workers from bringing food, drinks and tobacco into high-lead areas. Set up a lunchroom that is separated from work areas. Provide protective work clothing free of charge and make sure workers change clothes before going into the lunchroom or leaving work.
- Make sure that workers wash up before eating, drinking or using tobacco.
- Make sure your workers receive training about the health hazards of lead, lead-safe work practices and how to prevent take-home lead.



Respirators are a way to protect workers from high levels of airborne lead until levels can be permanently reduced. Except for certain very high exposure jobs, they are only a temporary solution.

Additional resources

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.

University of Washington

The University of Washington provides on-site consultation services. Free assistance is available upon written request from employers.

Requests can be sent to:

University of Washington
Field Research and Consultation Group
4225 Roosevelt Way NE, Suite 100
Seattle, WA 98105
frcg@uw.edu 206-543-9711

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.