

Lead in Construction

OAR 437 • Division 3/D • Division 2/I
Division 2/J • Division 2/Z



Why is lead so bad?

Lead can damage your nerves, stomach and intestines, kidneys, reproductive functions, and red blood cells. Workers who are exposed to high levels of lead risk long-term health problems and must be carefully monitored. Symptoms usually build up slowly from repeated exposure to small amounts of lead. You can be exposed to lead for months – or years – and not have any symptoms, but the longer you are exposed, the greater your risk of developing health problems.

How does lead enter your body?

There are two primary ways: You can breathe in lead from dust or fumes or you can swallow lead if it gets on your hands or face or in your food, drinks, or tobacco. Once lead gets into your body, it travels in your blood to organs such as the liver, kidneys, brain, and heart. After a few weeks, it moves into your bones and teeth, where it can stay for years. Most of the lead that gets into your body is eliminated as waste in a few weeks. However, the lead that stays in your body can build up to dangerous levels if you are continually exposed.

The only way you can be exposed to lead is if you disturb it. Work tasks that disturb lead include:

- Heat gun work
- Manual sanding
- Manual scraping
- Spray painting
- Remodeling (including replacing dry wall, windows, and siding)
- Torch burning

Tasks such as these are called trigger tasks because they trigger a set of requirements in our lead rule – [1926.62, Lead](#) – that you must follow to protect your employees. (See Trigger tasks and interim protection, below.)

Is there lead where your employees will be working?

For buildings built before 1978, you need to presume that the paint contains lead unless you have data to prove that all of the coatings, including the primer, did not contain lead or have been completely stripped off after 1978. You cannot use lead paint test kits, X-ray fluorescence (XRF), or laboratory testing alone to prove the absence of lead, as none of these methods can show that there is no lead at all. A lead concentration of 0.0015 percent can still lead to airborne exposures at the action level.

How to know if your employees could be overexposed

There is only one way to know: Sample the air they breathe while they are working. This is called air monitoring or exposure monitoring. You can do air monitoring yourself if you know how and if you have the equipment, which you can rent. You can request a consult from Oregon OSHA, hire a private consultant, or get help from your workers' compensation insurance carrier.

- A lead exposure level of 30 micrograms per cubic meter of air (30 µg/m³) averaged over an eight-hour period is called the action level. You must ensure that your employees follow specific requirements in our lead rule to protect them.
- A lead exposure level of 50 micrograms per cubic meter of air (50 µg/m³) averaged over an eight-hour period is called the permissible exposure limit or PEL. You must ensure that your employees are not exposed to lead at a level greater than the PEL – even when they are wearing respirators. You must also follow specific requirements in our lead rule to protect them.



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Trigger tasks and interim protection

If your employees do trigger tasks, you must assume they are exposed at levels above the PEL until you have done air monitoring to determine their exposures. You must also provide all of the following until you can show they are exposed below the action level:

- Appropriate respirators
- Protective clothing
- Clean areas for changing and storing clothes
- Hand-washing facilities with soap
- Blood sampling for lead
- Training that covers lead health hazards and all parts of the lead standard

Providing appropriate respirators

Provide your employees with appropriate respirators when:

- They are doing any trigger task
- Their exposure to lead is greater than the PEL
- Engineering and administrative controls do not reduce their exposures to or below the PEL
- An employee requests a respirator

The appropriate respirators for your employees – which include tight-fitting, supplied-air, and powered air-purifying respirators – depend on their exposure levels.

If your employees use respirators, you must have a respiratory protection program that meets specific requirements of [1910.134, Respiratory protection](#) (including the medical evaluation requirement and the appendices).

Providing protective clothing

Provide your employees with protective work clothing and equipment that prevents contamination when:

- They are doing any trigger task
- They are exposed to lead above the PEL
- They are exposed to lead compounds that may cause skin or eye irritation

Protective work clothing includes:

- Coveralls or disposable full-body work clothes
- Gloves, hats, and shoes or disposable shoe coverlets
- Face shields and vented goggles

Providing clean areas for changing and storing clothes

Clean change areas are required. Change areas must have separate storage areas for protective work clothing and street clothes.

Employees cannot leave the workplace wearing the protective clothing they wore during their work shift.

Providing hand washing facilities

Hand-washing facilities must include warm water and soap and meet the requirements of [437-002-0141\(5\) Washing Facilities](#).

If you cannot provide showers, make sure employees wash their hands and face at the end of their shifts. Encourage them to go home and shower immediately.

Providing blood sampling

All your employees who may be exposed to lead at or above the action level must have baseline blood sampling for lead.

Providing training

All employees must understand the requirements of [1910.1200, Hazard communication](#). Those who are exposed to lead at or above the action level must have additional training, including how their work could expose them to lead and the use of respirators.

Resources

- ☞ Division 2/I – [1910.134, Respiratory protection](#)
- ☞ Division 2/I – [1910.134, Respiratory protection, Appendices](#)
- ☞ Division 2/J – [437-002-0141\(5\) Washing Facilities](#)
- ☞ Division 2/Z – [1910.1200, Hazard communication](#)
- ☞ Division 3/D – [1926.62, Lead](#)

The Technical Section of Oregon OSHA produced this fact sheet to highlight health and safety programs and rules. The information is intended to supplement the rules and provide best practices to employers.