



Protect Workers from Lead Poisoning

It's the law and the right thing to do.

Why is lead a concern?

Employee Health

Lead poisoning occurs even at low levels by breathing in (inhalation) or swallowing (ingestion) lead dust and fumes. Lead dust can get in the mouth from contaminated hands while eating, drinking, or smoking or from contact with lead dust on clothes and surfaces.

“Take-home lead” on clothes, shoes, skin, hair, and even in vehicles, can poison family members. Children and people who are pregnant are at highest risk of lead poisoning.

Lead is highly toxic. Over time, lead can cause damage to the brain, nervous system, kidneys, reproductive system, and other health problems.

Lead is stored in the bones and stays in the body for years. It can travel from the lungs into blood and to body organs within months.

Most adults with lead poisoning don’t look or feel sick. Often, symptoms can be confused with common ailments like tiredness, headaches, or diarrhea.

Early Symptoms	Later Symptoms
Tiredness	Anemia
Headache	Gastrointestinal issues (diarrhea, nausea, and vomiting)
Poor appetite	Muscle and joint pain
Sleeplessness	Memory problems
Metallic taste	Male problems (low sperm and sex drive)



Good Business

Preventing lead on the job reduces:

- Costs associated with sick time. Lead-poisoned workers must continue to be paid for up to 18 months.
- Costly shutdowns or missed deadlines due to worker shortages.
- Costs associated with workers' compensation claims.
- OSHA-related violations and penalties.

Preventing lead on the job promotes:

- A better business reputation. A good health and safety record is important to customers.
- Healthier and more productive employees.
- Better working conditions and morale. Good employee safety programs make employees feel safe on the job.



What are high-risk jobs?

Lead poisoning often occurs in industry settings like construction, manufacturing, and remediation work. It also can occur at vehicle repair shops, and even at transportation or recreation businesses.

Workers are exposed to lead when producing, using, maintaining, recycling, and disposing of lead-containing materials. Risky activities include:

- Disturbing surfaces coated with lead paints during grinding, cutting, drilling, sanding, or scraping.
- Removing, renovating, or demolishing structures with lead paint, pipes, and fittings.
- Cutting through cables that contain lead.
- Pouring powders containing lead pigments.
- Using heat guns to remove lead-based paint from doors and windows.
- Welding or soldering lead-containing materials.
- Torch-cutting painted or uncoated metal.
- Shooting leaded bullets at indoor ranges (during law enforcement or security training).
- Repairing vehicle radiators or recycling lead-acid batteries.
- Working on or repairing leaded glass.

What must employers do?

Perform a Lead Hazard Exposure Assessment

OSHA requires that employers perform a lead hazard exposure assessment when there are possible exposures to lead in the workplace. The Lead hazard exposure assessment identifies lead exposures in your work processes. The assessment should identify actions to take to reduce lead on the job. This should be done before employees start the job.

The lead hazard exposure assessment can be done by your Health and Safety Manager or an industrial hygiene consultant.

Employees must be notified of all identified lead hazards.

Get help from New York State Department of Health's industrial hygiene program, your workers' compensation carrier, and Department of Labor consultation services (see back page for contact information).





NOTE: Employers must comply with all OSHA lead standard requirements at www.osha.gov/lead/enforcement. This guide provides an overview, not a substitute for all requirements. Carefully review these requirements for more information about performing a lead hazard exposure assessment.

Examples of How to Reduce Lead on the Job

- **Substitute** lead products with those that don't contain lead.
- **Install engineering controls**, such as local exhaust ventilation systems to capture lead dust and fumes. (Ensure systems are regularly inspected and working properly.)
- Use tools with **dust collection systems**.
- Implement a **Respiratory Protection Program**.

Job Safety Practices

Use good housekeeping

Use wet cleaning methods. Only vacuum if using a high efficiency filter (HEPA) rated for removing 99.97% by weight of particles 0.3 microns and greater. **Do NOT use compressed air or dry sweep.**

Clean up dust and debris on a regular schedule.

PROVIDE employees with a clean lunchroom separate from the work area.

Do NOT allow eating, drinking, or smoking, or storage of food, drinks, cigarettes, or cosmetics **in work areas.**

Remind employees to wash hands, face, and forearms before eating.

Clean the lunchroom after each shift.

Supply protective clothing and PPE

Work clothes and shoes **should NOT** be worn home.

Provide sufficient **storage or lockers** to separate street and work clothes and shoes.

Provide showers for employees to use before going home.

Consider uniforms and commercial laundering services for employee work clothes or wash work clothing at the worksite.

Supply necessary PPE, such as gloves work shoes.

Provide respirators and PAPRs as needed

Employees must be **medically evaluated, fit tested and trained on their proper use.**

Conduct training every year on these topics

The hazards of **lead exposure.**

The use of **engineering controls** to reduce exposure and promote safe work practices.

The correct use of **respiratory protection** and limitations of respirators.

Good personal **hygiene.**

Understanding blood **lead levels.**

The dangers of bringing **lead home from work.**



Protect Field Workers



While it might be more challenging to protect workers at job sites, consider these safety practices:

- Provide portable shower trailers and hand washing stations.
- Do not allow workers to leave the job site wearing work clothes or shoes. Soiled laundry must be stored in closed containers or tightly closed plastic bags. If you cannot provide onsite laundry services, employees should be instructed to wash work clothes separately from street clothes or other household laundry.
- Provide employees with a clean area for breaks and lunch away from the work area.
- Instruct employees not to eat, drink, or smoke in the work area, and to wash hands, face, and forearms before eating, drinking, or smoking.
- Clean work vehicles and work areas using high efficiency filter (HEPA) vacuums and wet methods (NO DRY SWEEPING). Check vehicle surfaces for lead during hazard exposure assessments at the job sites.



Test Workers for Lead

- Test employees who may be exposed to lead on the job when they are hired and each year after.
- Employees with signs of lead poisoning must have their blood tested.
- Test workers who are pregnant as soon as possible as these workers and their babies face higher risks if lead-poisoned.

OSHA's National Emphasis Program (NEP) for lead considers blood lead levels of 25 micrograms per deciliter and higher as “high gravity, serious, and must be handled by inspection.”

Your hazard exposure assessment will determine the average amount of lead employees are exposed to each day. Workers may not be exposed to more than 50 micrograms of lead per cubic meter of air during the average workday.

Workers exposed to more than 30 micrograms of lead per cubic meter per work day for more than 30 days must have their blood tested for lead more frequently:

- Test field construction workers every two months for the first six months and at least every six months after.
- Test general industry workers at least every six months.

NOTE: It takes about 35 days to show a change in blood lead levels. Retesting employees with elevated blood lead levels more than monthly will not show a measurable change.

Where Can I Get Help?

OSHA Compliance Information

www.osha.gov/lead/enforcement

Every business must comply with all OSHA requirements.

New York State Department of Health

health.ny.gov/AdultLead

Learn more about lead risks, testing, New York State reporting requirements, and available educational materials.

New York State Heavy Metal Registry

health.ny.gov/environmental/workplace/heavy_metals_registry/

Every employer with 100 employees or more must annually file a listing of employees who were exposed to lead during the previous year.

Contact the **Bureau of Occupational Health and Injury Prevention at 518-402-7900 or boh@health.ny.gov.**

Industrial hygienists can provide help with developing programs to protect your employees from lead.

Occupational Health Network Clinics

health.ny.gov/OHCN

Talk with occupational health experts about diagnostic services, injury prevention education, medical surveillance examinations, blood lead testing, respirator fit testing and clearance examination, fit-for-duty examinations, and a variety of wellness safety programs.

Your Workers' Compensation Carrier

Get help with air monitoring or other exposure assessment services.

Department of Labor On-Site Consultation

dol.ny.gov/site-consultation-program

Get help to identify and correct lead hazards and develop effective health and safety programs.