



LEAD IN BUILDING MATERIALS

UW personnel and contractors working with building materials or working in areas where building materials are disturbed should take precautions to avoid exposure to lead.

LEAD HAZARDS

Lead is a malleable, blue-gray, heavy metal that occurs naturally in the environment. It is found in many forms and can be hazardous when inhaled as a dust or fume, or accidentally ingested after contact directly or with contaminated surfaces.

While inorganic lead does not readily enter the body through skin, it can enter the body through accidental ingestion (eating, drinking, and smoking) via contaminated hands, clothing, and surfaces.

Exposure to lead, especially at elevated levels for extended periods of time, can cause adverse health effects. Children are especially vulnerable. Health effects can include neurological and gastrointestinal effects, and lead can also affect the reproductive system, blood, kidneys, and cause muscle and joint pain.

LEAD IN BUILDING MATERIALS

Lead-containing paint is the most prevalent lead-containing building material (LCM). Many buildings on the UW campus were built before lead in paint was banned for residential and public buildings in the United States in 1978. LCM may include:

- Paint and surface coatings on interior and exterior surfaces in buildings built before 1978
- Roofing and flashing
- Solder in plumbing and electrical
- Mortar in brick and stonework in older buildings
- Additive in brass/alloys (faucets, galvanized pipe)
- Cable and wire casing
- Cast iron pipes, gaskets and connections
- Glazing
- Lead glass, stained glass

Intact LCM under normal conditions does not pose a health hazard. However, if the material is in poor condition or cracked, drilled, sanded or otherwise disturbed, it could result in lead-containing dust being released into the air and/or onto surfaces that could present a health risk.

Any work involving disturbance of LCM must only be performed by personnel who have received lead worker training and use proper work practices, containment equipment, and personal protective equipment (PPE).

PROCEDURES

To protect workers and building occupants from lead exposure, procedures must be in place to monitor the condition of LCM. These include:

- Informing building managers and occupants of the presence of lead-containing paint and other lead-containing building materials.
- Informing building managers and occupants not to disturb LCM and to report it if damaged.
- Managing construction and maintenance activities so that work does not cause lead exposures to workers doing the work or building occupants.
- Conducting lead abatement projects according to regulations and inform building occupants.



RESPONSIBILITIES

UW EH&S assists departments with the development of lead safety work plans, keeps departments apprised of changes in relevant regulations, and develops resources that strengthen local safety policies. EH&S performs lead worker and lead awareness training, including annual refreshers. EH&S performs air monitoring during representative activities where airborne lead may be at or above the action level of 30 micrograms/cubic meter ($\mu\text{g}/\text{m}^3$).

University facilities and maintenance departments are responsible for properly managing lead in their buildings and related spaces. The UW has a [Lead Safety Program Manual](#) that outlines functions that EH&S, the department, and/or their contractor will perform with regard to training, notification, monitoring, jobsite controls, safe work practices, and recordkeeping for maintaining LCM and for instances when lead may be disturbed.

Supervisors are responsible for implementing their department's safety programs. They must ensure work plans for LCM are complete prior to projects involving disturbance of lead.

Employees, students and other personnel are required to follow their department's lead safety practices and policies and notify their supervisors of unsafe conditions or work as soon as possible.

PREVENT LEAD EXPOSURE

Limit lead exposure to the lowest level possible by using **engineering controls, safe work procedures** and **PPE**, as needed. In addition, take the following precautions:

- **Ask to see the Hazardous Material Survey** before the start of a project that may involve disturbing LCM. Hazardous Material Surveys are kept with UW [Facilities Regulated Materials Office](#) (206.685.3357 or uwrmo@uw.edu).
- If there has not been a survey conducted and the **building was built before 1978** then all paints are considered lead-containing.

- **Be careful not to damage painted building materials** or materials that may contain lead unless you have a work plan to limit your exposure.
- **Do not enter construction areas** when lead projects are being performed. A sign will be posted that reads *"Danger Lead Work Area – May Damage Fertility or the Unborn Child – Causes Damage to the Central Nervous System – Do Not Eat, Drink, or Smoke in this Area."*
- **Practice proper workplace hygiene** to avoid getting lead on clothing that may be taken home accidentally and expose family members. Wash your face and hands with soap and water if you feel you may have contacted lead-containing dust.
- **Do not use compressed air or shake clothing** to remove dust. Use wet wiping or a HEPA vacuum dedicated to lead work when lead dust may be present.
- Guidelines for developing procedures for **cleanup and disposal of lead-contaminated debris** are given in the [EH&S Lead Design Guide for Projects](#).

PREVENT "TAKE-HOME" LEAD

Clean lead dust from surfaces with damp wipes. Do not contaminate clothes, shoes, and skin that can carry lead into your car and home, and accidentally expose family members. Children are especially susceptible.

The UW controls lead hazards on campus by conducting surveys to identify areas where LCM is present and managing LCM in place. If you suspect a material in your work area may be LCM and it appears damaged or in poor condition, contact UW Facilities Care Team at careteam@uw.edu or [EH&S](#) at 206.543.7388.

Other controls are required by the Department of Labor & Industry Division of Occupational Safety and Health (DOSH) to protect workers when working with LCM. For more information refer to the [Washington state lead standard](#) and the [EH&S Training page](#).

REFERENCES

- [UW Lead Safety Program Manual](#)

Please contact EH&S at 206.543.7388 for more information about lead safety.