



Lead Exposure in Renovation and Remodeling Tech Guide

Health and Environmental Systems Laboratory /Occupational Safety and Health Division of the Georgia Tech Research Institute

Pb Lead

Atomic Number: 82
Atomic Mass: 207.20

LEAD EXPOSURE CAN AFFECT ALL MOST EVERY SYSTEM WITHIN IN THE BODY!

Some systems affected include:

- brain
- hematological
- kidneys
- cardiovascular system (CNS)
- central nervous system
- reproductive system

SYMPTOMS OF LEAD EXPOSURE

Symptoms of lead exposure include, but are not limited to:

- | | |
|----------------|-------------------------|
| abdominal pain | headache |
| constipation | poor appetite |
| diarrhea | weakness |
| brain damage | fine tremors |
| CNS | insomnia |
| irritability | “lead line” on the gums |
| fatigue | muscle pain/joint pain |
| dizziness | metallic taste in mouth |

WORKPLACE AIRBORNE LEVELS

Determine if lead is present in the workplace by conducting initial air monitoring. If workers’ airborne exposure is:

- ◆ \geq ACTION LEVEL of $30 \mu\text{g}/\text{m}^3$
 - conduct biological monitoring
 - conduct training
- ◆ $>$ PERMISSIBLE EXPOSURE LIMIT of $50 \mu\text{g}/\text{m}^3$
 - install engineering controls
 - use respiratory protection
- ◆ You must also determine which trigger task your work falls under.

Additional info...

- ◆ Occupational Safety and Health Admin.
<http://www.osha.gov>
- ◆ National Lead Information Center
1 (800) 424-LEAD
- ◆ Housing and Urban Development Agency
<http://www.hud.gov/lea>
- ◆ Environmental Protection Agency
<http://www.epa.gov/lead/>

LEAD can enter the body from inhaling dust and chemicals that contain lead. The most common route of occupational lead exposure is through inhalation. Although adults are more likely to inhale lead, it can also be ingested by workers if good personal hygiene practices, such as but not limited to hand washing and the removal of contaminated personal protective equipment (PPE) and clothing prior to entering areas that should be maintained as free as practicable of lead contamination.

TASKS THAT MAY LEAD TO LEAD EXPOSURE IN RENOVATION AND REMODELING

- Abrasive blasting
- Flame-torch cutting
- Welding
- Dry sanding
- Dry scrapping
- Manual demolition
- Use of heat guns

MATERIALS IN WHICH LEAD IS OFTEN FOUND

- Roof
- Cornices
- Tank linings
- Electrical conduits
- Soft solder in plumbing
- Lead-based paint

LEAD EXPOSURE PREVENTION STRATEGIES

- **Engineering Controls**
 - Substitution
 - Isolation
 - Ventilation
- **Administrative/Work Practice Controls**
 - Housekeeping
 - Good personal hygiene practices
- **Personal Protective Equipment**
- **Training**

Refer to 29 CFR 1926.62 for the construction regulatory requirements and 1910.1025 for the general industry regulatory requirements.

For further information, contact the Occupational Safety and Health Division at (404) 894-3806
<http://www.oshainfo.gatech.edu>

