

Take-home Lead: A Preventable Risk for Your Family

Take-home lead: a hazard for children and adults

Adults employed in occupations like construction or lead smelting, as well as those with hobbies such as refinishing antiques or making ammunition from lead shot, can be exposed to lead. Lead dust can be carried home on their clothes, shoes, skin and hair. Lead dust can also contaminate their vehicles. This lead dust can be passed on to children and other family members. "Take-home" lead can have adverse effects on children's and adults' health.

Adults who work with lead can take certain safety precautions to protect themselves and their families from take-home lead. This Minnesota Department of Health (MDH) fact sheet explains the impacts of take-home lead and the best ways to prevent it from causing health problems for your family.

Potential health effects of lead

Exposure to lead can have serious health effects for both children and adults. Children under the age of six, pregnant women or a developing fetus can experience particularly dangerous health effects from lead exposure.

Lead poisoning may cause learning, behavior and health problems in young children. Miscarriages, premature births and stillbirths are associated with a woman's exposure to lead before or during pregnancy. The lead from the mother can cross the barrier between mother and child. This lead exposure may affect the baby's brain and nervous system development.



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Are you bringing lead dust home to your family?

Symptoms of lead poisoning may be subtle and hard to detect. Over time, lead can cause permanent damage to the brain, blood, nerves, kidneys and reproductive organs in adults.

Jobs or hobbies associated with take-home lead

- Battery manufacture
- Construction and demolition, including abrasive blasting
- Radiator repair
- Lead smelting
- Lead, brass or bronze casting
- Foundry operations
- Ceramic and plastic manufacture
- Fishing tackle manufacture
- Firing range instructor or janitor
- Bridge construction or repair
- Home remodeling or renovation
- Ammunition/bullet manufacture
- Plumbing and pipefitting
- Soldering of electrical circuits
- Stained glass making
- Antique refinishing



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In men, elevated blood lead levels can cause impotence, reduced sex drive, and reduced number, motility and normal development of sperm. This can reduce fertility and has been linked to miscarriages among partners and birth defects among children. In women, exposure to lead may reduce fertility and sex drive.

Exposure to lead is measured with a blood test, which can be performed by your family doctor or clinic. The amount of lead in the blood is measured in micrograms of lead per deciliter of whole blood (ug/dL). The U.S. Centers for Disease Control and Prevention (CDC) has established guidelines about what blood lead levels pose health risks to adults and children.

- For children under the age of six and pregnant women, a blood lead level of 10 ug/dL or greater is a level of concern.
- For adults a blood lead level of 25 ug/dL or greater is a level of concern.

The Occupational Safety and Health Administration (OSHA) has established lead standards for workers in general industrial and construction jobs. Both standards define minimum safety precautions that employers must provide for employees exposed to lead on the job. OSHA set 50 ug/dL as the blood lead level at which the worker must be removed from the work-related lead exposure. Until the blood lead level decreases to 40 ug/dL, workers may not return to the job. Contact Minnesota OSHA at (651) 284-5054 for copies of the lead standards for workers.

Symptoms of adult lead poisoning

Adults can and do become lead poisoned.

Early symptoms of lead poisoning among adults include:

- Fatigue
- Upset stomach or stomach cramps
- Poor appetite
- Irritability, nervousness or depression
- Headache
- Sleeplessness
- Metallic taste in the mouth
- Reproductive problems
- High blood pressure
- Lack of concentration
- Muscle and/or joint pain

Preventing take-home lead

Job- or hobby-related lead exposures don't have to go home with the working adult. The following steps can prevent take-home lead from becoming a family-wide concern.

- Don't eat, drink or smoke on the job.
- Wash hands before eating, drinking, smoking or touching your face.
- Wear the proper protective equipment on the job, including a respirator.
- Shower, wash your hair and change into clean clothes before leaving work.
- Store street clothes in a separate locker from your work clothes.
- Wash work clothes separately from other laundry. After washing lead-contaminated clothing and removing them from the machine, run the rinse cycle once before using the washing machine again.
- Eat a well-balanced diet. Lead is more easily absorbed on an empty stomach. Proper nutrition can help reduce and prevent the absorption of lead.
- Get regular blood lead tests, if you work in a lead-related job or have a hobby involving the use of lead.

Need more information?

Visit the MDH's Web site:

www.health.state.mn.us/divs/eh/lead/