



How do I prevent lead exposure?

Personal Protection

- Do not eat, drink or smoke inside the range or rooms adjacent to the range.
- Wash your hands and face immediately after shooting, cleaning firearms, picking up spent casings/pellets, or reloading ammunition, and before eating, drinking or smoking. Use an effective lead removal product; standard soap and water is not enough to remove lead residues from your skin.
- Use non-lead ammunition and primer such as copper or polymer-jacketed bullets whenever possible.
- Never use brooms to sweep up spent casings — It stirs up lead dust. Instead pick up casings by hand.
- Leave a pair of shoes, a hat, and a set of clothes or coveralls at the range to be used only for shooting. If possible, keep them in a plastic bag. Regularly wash clothes worn at the range, keeping them separate from your other clothes and family laundry.

Range Management Issues

- Have a dedicated exhaust ventilation system that is completely separate from any ventilation for the rest of the building. Maintain and replace filters regularly.
- Clean the range frequently using a vacuum cleaner equipped with a high efficiency particulate air (HEPA) filter to remove lead-contaminated dust. Never dry sweep a firing range.

- Provide lead-free options for ammunition in the range store
- Provide workers and shooters with information about the hazards associated with firing ranges and the symptoms that may indicate a health problem.
- Provide cleaning facilities and lockers and develop mandatory washing and hygiene programs for shooters and workers to limit personal and take-home contamination. Use effective lead removal products to wipe surfaces and for cleaning hands.
- Provide workers with periodic medical testing and encourage shooters to get tested regularly.

Hand sanitizers are good for germs but are useless for lead.

Alcohol-based hand sanitizers do not remove lead from hands. While washing with soap and water is often a sufficient means of removing lead residue, there are more efficient cleaning products that can almost completely eliminate lead content from your skin. Decontamination towels, for example, remove 98 percent of lead residue from skin. In addition, there is hand wipe technology available that will indicate whether your handwashing method is effective.

535 W. Jefferson St., Third Floor
Springfield, IL 62761
Phone 217-785-1873 • Fax 217-524-1770

Printed by Authority of the State of Illinois
P.O. 5413344 1M 9/12



Lead Safety

»»» For Indoor Firing Ranges



Illinois Department of Public Health
Division of Epidemiologic Studies
Adult Blood Lead Registry

How am I exposed to lead at the firing range?



Most ammunition contains lead within the bullet and the primer. When a gun is fired, lead from the unjacketed bullet shooting down the barrel, lead vaporized from the base of the bullet and lead from the burned primer sprays out in a cloud when the bullet is fired. These particles of lead can get into your body when you breathe or swallow, such as when you eat, drink or smoke. You also can expose yourself to lead when you collect brass and clean your firearms. Lead is soft and can be transferred to your skin as you handle ammunition. In an indoor firing range, lead dust is created as slugs hit the bullet trap. This dust and the lead generated when you fire your gun can settle on your skin, hair and clothes and can then be transferred to your vehicle and home, potentially exposing your family to the harmful effects of lead.

Many shooters also cast their own bullets or reload bullets. For more information about casting bullets and lead, read the Department's Lead Safety for Shooters brochure.

How do I know if I have lead in my body?

Have your blood tested

You can have lead poisoning and not have any symptoms. Contact your health care provider or local health department to get your blood tested. Your doctor can take a blood sample and test for lead. These tests give results in micrograms per deciliter of blood. They are a simple and inexpensive way for individuals to know if the precautions they are taking to keep their lead exposure down are working.



A little lead never hurt anyone — or does it?

How lead exposure harms you

Absorption of lead into your body will affect your health. Lead is stored in the blood, liver, kidney and bones. Frequent exposure to lead, particularly at high levels, can harm the nervous, digestive and reproductive systems, the brain and kidneys, and can interfere with the body's ability to make blood. When the nervous system is affected by lead exposure, you might become irritable, exhibit aggressive behavior, be depressed, have a loss of sensation in your fingers and face, or weakness in the fingers, wrists and ankles. You might also experience headaches, lose sexual function and become impotent. Other symptoms of exposure to high lead levels may include loss of appetite, joint pain, and changes in sleep patterns.

Lead exposure affects men causing reduced sexual function and impotence if lead levels reach high enough concentrations. Lead also can alter the structure of sperm cells potentially causing birth defects.

Pregnant women are especially vulnerable to lead exposure due to metabolic changes caused by the pregnancy. Lead passes through the placenta to the fetus potentially causing miscarriages and birth defects.

Adults absorb about 20 percent of the lead they ingest; children absorb about 70 percent of the lead they ingest. Exposing a child to lead may result in slow learning, slow growth, hearing loss and behavioral problems.

