

Preventing Lead Exposure at Shooting Ranges



Most ammunition contains lead. Lead is toxic to people. Range workers, target or hobby shooters, members of shooting teams, law enforcement officers, backyard range owners, and their families may be at risk of lead poisoning.

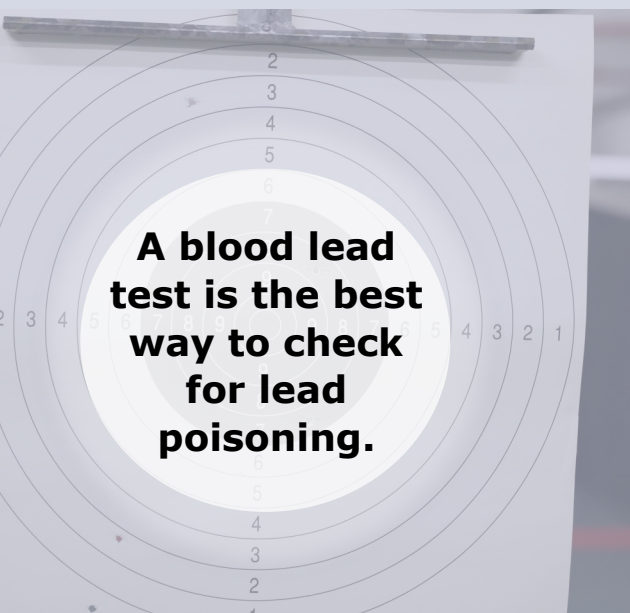
Many people in Wisconsin use indoor and outdoor shooting ranges. It's important for people who use or work at shooting ranges to know how they might come in contact with lead and how to avoid it. Lead dust can:

- Be breathed in.
- Get on your skin and be absorbed into the body.
- Stick to your clothes or hair.
- Fall from the air into your food and be eaten.
- Be passed along to others—including kids—who touch someone or something with lead dust on it.

Lead poisoning can be prevented by avoiding contact with lead, especially when cleaning the range.

Lead poisoning is preventable.

- Know the **sources of lead** at the shooting range.
- Know how to **reduce your exposure** while at the range.
- Know how to **protect your family** from lead when you come home.



What are the health effects of lead exposure?

- Early symptoms include irritability, mood swings, sleep problems, stomach pain, vomiting, headaches, and fatigue.
- Lead poisoning can increase your risk of death or serious damage to your heart, brain, or other organs.
- Either parent's lead exposure can pose risks that can make it harder to start a family or have a healthy child.
- Young children with lead exposure are at higher risk of learning differences and health problems.
- Lead can be stored in bones and organs for a long time. If it does not cause illness right away, it can still be harmful later.



Sources of lead at the shooting range:

1

Firing weapons

Most ammunition contains lead in the primer at the base of the bullet. When the primer ignites, it releases tiny lead particles into the air. These particles are also released by friction as the projectile passes through the gun barrel.

2

Splattering bullets

When bullets hit the range's targets, backstops, floor, walls, or baffles, they splatter, and lead particles can become airborne.

3

Cleaning the range

Activities like sweeping, sanding, and dusting may cause settled lead dust to become airborne. Dry sweeping is a particularly dangerous practice that significantly increases airborne lead levels.

4

Handling spent ammunition

Recovering lead bullets from traps and emptying bullet trays can release dust into the air and contaminate your hands. Handling spent cartridges and cleaning firearms can also release lead onto your hands or into the air.

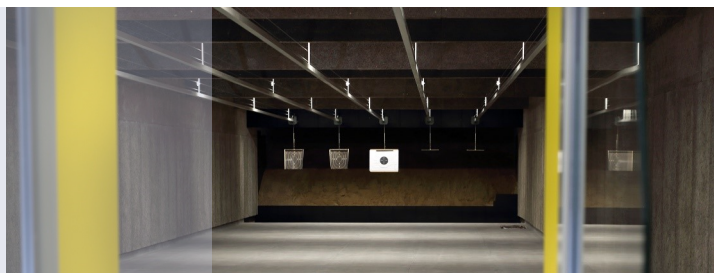
Lead exposure prevention tips:

- Use jacketed or lead-free bullets and no-lead primer.
 - Choose a shooting range with good ventilation to remove airborne lead from the firing line. This ventilation should provide a steady stream of air across all shooters' faces and directly down range where it is exhausted, filtered, and discharged. A separate system exclusively for the range is recommended.
 - Change clothes and shoes before leaving the shooting range.
 - Wash range clothes separately from your family's clothing.
 - Never eat, drink, or smoke inside a shooting range.
 - Wash your hands, forearms, and face after shooting, gathering spent ammunition, cleaning guns, or reloading. Do this before eating, drinking, smoking, or contacting other people.
 - When cleaning the range, use the right methods to avoid stirring up dust. Never shovel or dry sweep. Safer methods include wet mopping and using a HEPA vacuum system. Clean regularly to prevent dust buildup.
 - Range cleaning and reclaiming spent ammunition are higher-risk activities. Use a NIOSH-approved respirator and full-body clothing, gloves, goggles, and head/foot covering.
- If bullet casting and reloading:**
- Only cast or reload bullets in properly ventilated work spaces.
 - Never cast or load bullets inside the home.
 - Never let children in a work area where bullet casting or reloading occurs.
 - Wash hands and face after casting and reloading, and never eat, drink, or smoke during this process.

Learn more!

Visit Lead-Safe Wisconsin
dhs.wisconsin.gov/lead/index.htm

OSHA Requirements and Indoor Shooting Ranges
osha.gov/sites/default/files/publications/OSHA3772.pdf



Wisconsin Department of Health Services

www.dhs.wisconsin.gov/dph/occhealth.htm | P-03697 (02/2025) | DHSOccHealth@dhs.wi.gov

Division of Public Health | Bureau of Environmental and Occupational Health

