

Aim at Lead Safety

Controlling Lead in Indoor Shooting Ranges Practical Solutions for Range Management

Lead and Indoor Shooting Ranges

Controlling lead exposure in indoor shooting ranges is important for protecting the health of staff, shooters and others. When a pistol, rifle, or shotgun is fired, the primer ignites and releases very small lead particles into the air at the shooting line. Small lead particles are also released as the bullet passes through the gun barrel. Lead particles are ejected into the air as the bullet strikes the target and trap.

Lead in the air travels on air currents and can be inhaled. Some lead may be removed by the exhaust ventilation system, but ventilation systems do not completely control the hazard. In some ranges, lead can travel into other rooms or areas of the facility.

Lead that lands on surfaces can build up over time if the range and other rooms are not cleaned frequently. Lead can be picked up on the hands and swallowed when eating, drinking or smoking. Lead can also be tracked out of the range area on shoes and clothing.

Lead and Health

Frequent exposure to lead, particularly at high levels, can harm the nervous, digestive and reproductive systems; the brain; kidneys; and the body's ability to make blood. Your doctor can perform a simple blood test to see if you have recent exposure to lead. Employers should set up blood-lead monitoring program for range employees.



Lead Protection Measures

- Offer non-lead ammunition, including jacketed bullets, non-lead primers, and frangible ammunition in the facility's gun shop. Recommend non-lead ammunition.
- Clean, clean, clean! Daily housekeeping will remove lead-containing dust that has settled on surfaces.
- Use a high efficiency particulate air (HEPA) filtration vacuum and wet method with detergent and water to clean the range areas. Never dry sweep.
- Provide personal protective clothing and equipment to anyone cleaning the range. Include appropriate respiratory protection (a minimum of a half-face air-purifying respirator with P100 cartridges), shoes, clothing and hats. Contact the New York State Department of Health for more information regarding respiratory protection.
- Keep the range area uncluttered. Airflow patterns can be disrupted by obstacles.
- Provide showers for employees to use at the end of the workshift.
- Provide work clothes and a clean locker area for employees to change from street clothes to help prevent "take-home" lead exposure to family members.
- Provide all employees with training on lead hazards and lead protection measures.
- Check that ventilation systems work properly and preventive maintenance is performed.
- Have your shooting range ventilation system evaluated by a ventilation engineer or industrial hygienist with shooting range experience. Swirling air currents at the shooting line increase airborne lead exposures.
- Provide a clean area for people to take breaks and eat.
- Provide information on lead hazards and protective measures during in-house gun safety courses.
- Provide workers with blood-lead tests. Contact the State Health Department about setting up an employee blood-lead testing program. Results of tests may assess the effectiveness of lead protection measures.

For more information about controlling lead in shooting ranges

Call New York State Department of Health
Bureau of Occupational Health
(800) 458-1158 ext. 27900

E-mail boh@health.state.ny.us.

Related topics on indoor shooting ranges are available from:

New York State Department of Health
www.health.state.ny.us/environmental/index.htm#lead

National Association of Shooting Ranges (NASR)
(203) 426-1320
www.rangeinfo.org.

