

HOW DOES LEAD HARM ME?

Once lead gets into your body, it stays there for a long time. The lead in your body can build up if you are exposed for a long time, even if the exposure is to small amounts of lead. Too much lead in your body can harm your:

NERVOUS SYSTEM: Too much lead can damage your brain and nerves. If your brain has been affected, you might feel tired and have headaches. Symptoms include feeling anxious and irritable, having difficulty sleeping or concentrating, short term memory loss and confusion. Lead can also affect the nerves in your hands, arms and legs, causing weakness.

REPRODUCTIVE SYSTEM: Lead can damage the reproductive system of men and women and may harm unborn children. Children whose mothers were exposed to lead may have learning difficulties.

KIDNEYS: Chronic exposure to lead can harm your kidneys permanently. Medical tests can be performed to find out if your kidneys are being damaged.

BLOOD-FORMING SYSTEM: Lead exposure can cause "anemia," an inability to produce enough red blood cells to supply oxygen to your muscles, brain and other tissues.

BLOOD PRESSURE: Chronic exposure to lead can raise your blood pressure and cause hypertension.

For more information on health effects, contact:
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LEAD HAZARDS AT INDOOR FIRING RANGES

LEAD HAZARDS AT THE RANGE

Anybody spending time at an indoor firing range may be exposed to lead. One potential lead hazard is from the lead fumes in the "gun smoke" generated from the use of ammunition with lead primers or lead bullets.

Exposure to lead can also result from the disturbance of lead dust that has settled on surfaces in a firing range.

Individuals are exposed to lead when they clean the range, clean guns, or empty the bullet trap. Dry sweeping of the range causes settled lead dust to become airborne. Individuals who clean bullet traps by pouring or shoveling bullet debris into waste buckets are exposed to very high levels of airborne lead dust.

Individuals who eat, drink, or smoke cigarettes without washing up before meals and drink or breathe in lead that has settled on their cigarettes.

STRATEGIES FOR PREVENTING LEAD POISONING WHILE AT THE RANGE

Reduce the use of lead-containing ammunition.

Require the use of jacketed ammunition, preferably with non-lead primer, to reduce airborne lead in the range. Some ranges require in-house use of such ammunition and sell it at the retail counter.

Control exposure through ventilation.

Good ventilation can significantly reduce airborne lead levels at the firing line. Supplied air should move steadily across all shooting booths, carrying the gun smoke away from the shooter's face and directly down the range where it is exhausted, filtered, and discharged. General ventilation of the building is not enough. Ranges should contract with a ventilation consultant who has a proven track record of designing effective firing range ventilation systems. Ranges should perform regular maintenance to keep the system running well.

Use good housekeeping practices.

Keep all work areas free from lead by regular cleaning. Cleaning should be done using either a special toxic dust vacuum ("HEPA" vacuum) or by wet mopping using water mixed with a surfactant (trisodium phosphate [TSP] or dish detergent, etc.). **Never dry sweep the range.** This increases exposure and spreads contamination by kicking up lead dust.



Minimize airborne lead dust while cleaning the bullet trap.

When possible, debris trays should be first HEPA vacuumed to remove as much lead dust as possible, wetted, and then emptied inside closed plastic bags. Debris should be repeatedly misted with water/surfactant mixture during all cleaning operations. New bullet trap designs that do not require cleaning are best and also save time.

Train individuals about lead safety.

All individuals should receive training on how to work safely in lead exposure areas. Training increases individual awareness of health and safety conditions and provides them with information and skills to protect themselves while at the range.

Provide individuals with respirators.

Fit-tested respirators should be worn during all cleaning operations. Individuals should use at least a half-mask respirator with HEPA filters while cleaning the range. At least a full-face respirator with HEPA filters should be worn while cleaning the bullet trap.

Provide individuals with protective clothing.

Individuals should wear disposable coveralls, head covering, and shoe coverings when cleaning the range and bullet trap. **Individuals should not wear shooting clothing or shoes home.** Lead dust is carried on clothes and shoes from the range to individuals' homes and vehicles, putting their children and other household members at risk of lead poisoning.

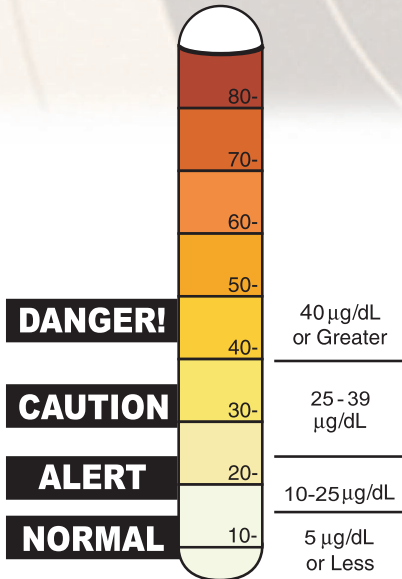
Prohibit eating, drinking, and smoking in the work areas.

Require individuals to wash their hands, forearms, and face before breaks, lunch, and at the end of their session.

Recommend an on-going lead medical program.

Find a doctor who is familiar with the effects of lead. Individuals who regularly shoot at indoor ranges should have at least an annual lead specific medical exam, which includes a blood lead level.

BLOOD LEAD LEVEL



FOR MORE INFORMATION ON WORK PLACE HEALTH AND SAFETY, CONTACT:

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