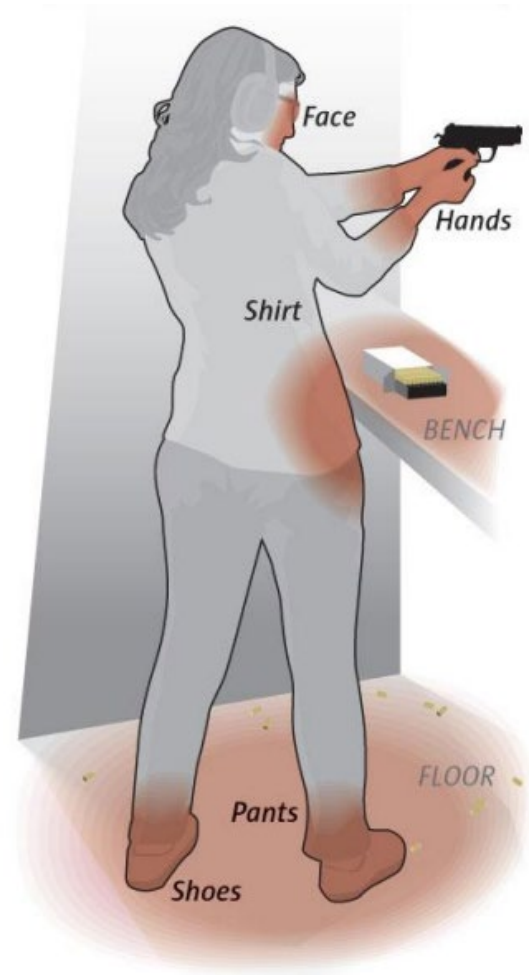


Lead Exposure at the Gun Range



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**“Lead Contamination” at Shooting Ranges is
REAL**




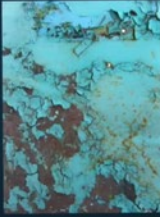

What is the Lead?

- Lead is a naturally occurring bluish-gray metal. It can combine with other chemicals to form lead compounds. Its main use is in the production of batteries, but it is also used in the production of ammunition, metal products, and ceramic glazes. Some chemicals containing lead are used in paint, but currently, the use of leaded paint is not allowed in residential structures due to the potential harmful effects in people and animals. Leaded paint used in residences built before 1978 is often a major source of lead exposure, especially for children.
- Acute exposure to high amounts of lead produces abdominal pain, cramps, and vomiting. Brief exposures to low or moderate lead levels may not cause any specific symptoms, but continued exposure to lead may cause encephalopathy. Early symptoms of encephalopathy may develop within weeks of initial exposure and include dullness, irritability, poor attention span, headache, muscular tremor, loss of memory, and hallucinations. The condition may then worsen, sometimes abruptly, to delirium, convulsions, paralysis, coma, and death.
- There is no antidote for lead. Seriously exposed persons may need to be hospitalized and undergo chelation therapy to accelerate the excretion of lead from the body. Chelation therapy is necessary when blood lead levels are higher than 45 $\mu\text{g}/\text{dL}$.



LEAD CHARACTERISTICS:

- Very soft, dense, and moldable metal
- Poor conductor of electricity
- Effective shield against radiation



Diagnosing Lead Contamination/Poisoning

- No level of lead in the blood is considered safe, especially for children. If you are worried about lead in your water, have it tested. A simple blood test can tell if you (or your child) has lead poisoning.
- To do the blood test, the doctor will take blood from a vein in an arm or the end of a finger. Lead content is measured in micrograms per deciliter (mcg/dL) of blood. There's no safe level of lead in your blood, but 5 mcg/dL is enough to require ongoing testing.
- A level of 45 mcg/dL or higher in children requires treatment. Most adults with a level of 80 mcg/dL or higher and all adults with a level of 100 mcg/dL or higher should be treated. If your blood level is 50 mcg/dL or higher and you have severe symptoms, your doctor may also suggest treatment.



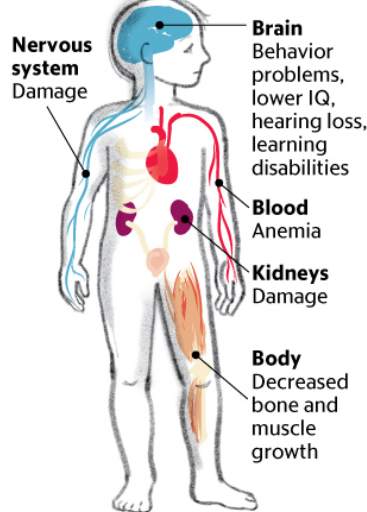
Health Effects of Lead Contamination/Poisoning

- Lead is a toxic substance that poses a variety of dangers for humans. Lead has been shown to affect virtually every organ and/or system in the body in both humans and animals. Young children and the developing fetus are particularly at risk. Lead damages the central and peripheral nervous system, the kidneys and the body's ability to regulate vitamin D.
- Lead negatively affects the formation of red blood cells. Very high levels of lead can cause seizures, coma and death. At lower levels of exposure, a child can suffer from developmental delay, lower IQ, hyperactivity, learning disabilities, behavioral problems, impaired hearing and stunted growth. Many of these effects are irreversible. Increasing the problem of lead poisoning is the fact that signs of lead poisoning are not always obvious.
- At low lead levels, a child may show no symptoms at all. Many children who are lead-poisoned look and act healthy. Sometimes the vague symptoms may be mistaken for other illnesses.

Lead exposure

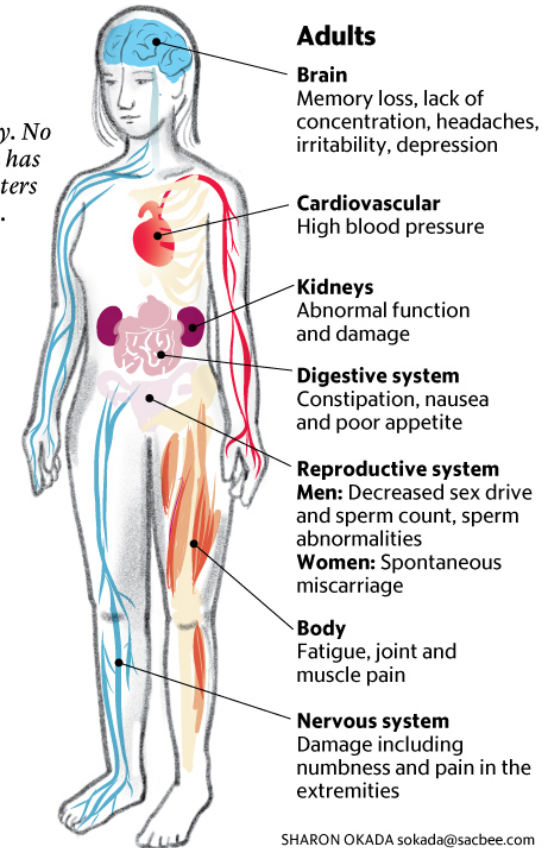
Although often without obvious symptoms, lead exposure can affect nearly every part of the human body. No safe level of lead in the bloodstream has been determined by the federal Centers for Disease Control and Prevention.

Children



Sources: Centers for Disease Control and Prevention; National Institutes of Health

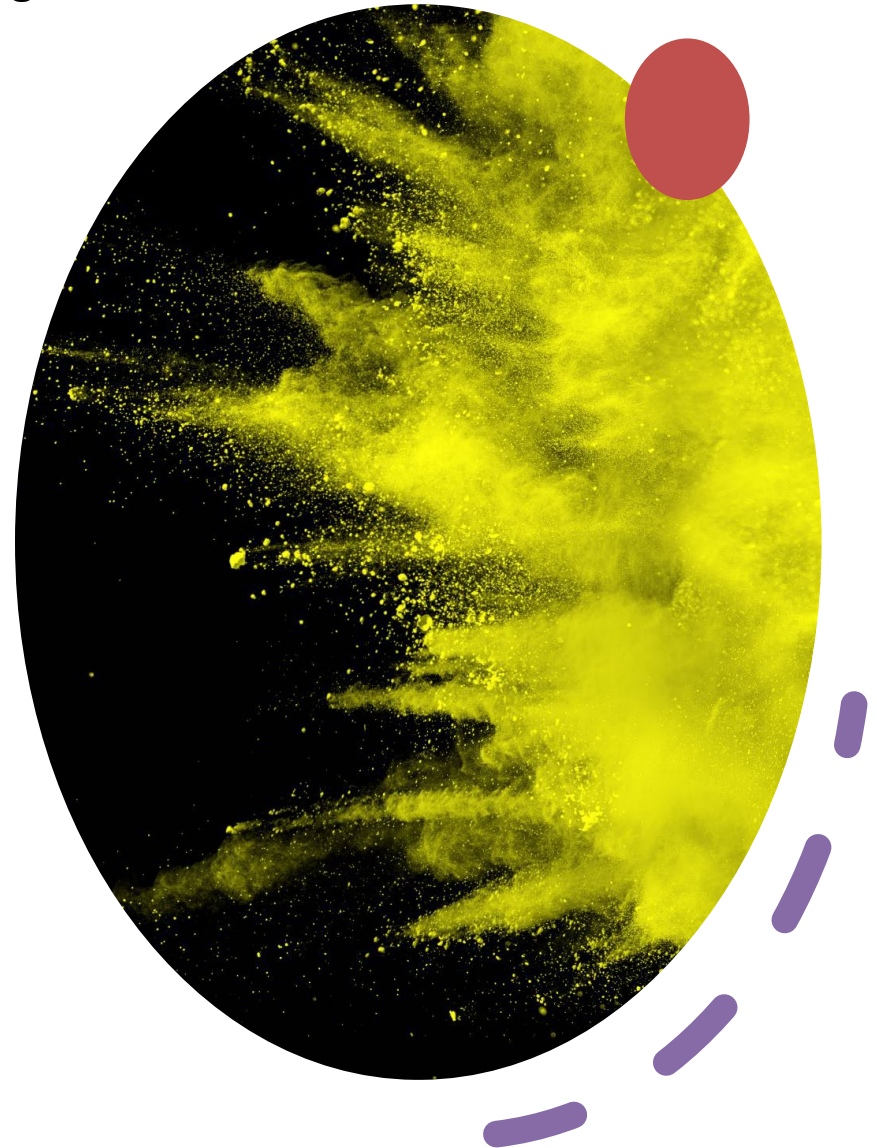
Adults



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Sources of Lead Exposure at the Gun Range

- Firing lead bullets produces gun smoke that contains lead dust and fumes.
- Impact at the target area can cause lead bullets to break apart and release lead dust.
- Handling spent cartridges can cause lead dust to get on your hands.
- Dry sweeping and using vacuums without high-efficiency particulate air (HEPA) filters will release lead dust into the air.
- Maintenance work such as changing ventilation system filters and vacuum bags can release lead dust.
- Lead dust on hands, clothes, or surfaces can contaminate food, and lead to ingestion.



Lead Safety at the Gun Range

- Do not eat, drink or smoke inside the firing range.
- Wash hands with soap and water after handling firearms, ammunition or casings, clothes and shoes worn at the range, and before eating, drinking or smoking. Use lead-specific soap whenever possible.
- Use non-lead bullets and primer whenever possible.
- Wear gloves to pick up spent casings. Never sweep up spent casings
- Change out of range clothes and shoes before going home or getting in your car.
- Wash range clothes separately from other household clothing. Wipe shoes clean using wet wipes.
- Get regular blood lead tests for yourself and your family.

MAKE IT A HABIT:

- Wash your hands and face with soap and water
- Blow your nose
- Dry your face and hands with a towel

Lead Exposure – Bonus Media



Lead Safety at the Firing Range

Lead is dangerous and can cause:

Brain and nerve damage
Depression
Dizziness
Fatigue
Headaches
Irritability
Memory loss
Tremors
Trouble sleeping

High blood pressure

Constipation
Kidney damage
Loss of appetite
Stomach cramps

Muscle or joint pain

Abnormal sperm
Impotence
Infertility
Loss of sex drive
Miscarriage
Preterm labor
Stillbirth



Questions?

