

# Lead Exposure at Manitoba Firing Ranges

## Environmental Health - Factsheet

### Lead Exposure can occur at Firing Ranges

Lead is a soft, bluish-grey heavy metal that is a common component of gun ammunition. **In North America, including Manitoba**, high blood levels of lead have been identified in people working or shooting at firing ranges. Sources of lead exposure in Canada have declined over time and blood lead levels in Canadians have also declined but the levels found in firing range users are much higher than the usual Canadian blood lead levels. It is therefore important that all range users (ex: workers, volunteers, shooters) and their families understand the risks associated with lead exposure and the steps to prevent exposure.

### What health effects can be caused by being exposed to lead?

Lead exposure can affect your health. Everyone should aim to prevent exposure as much as possible. Children and unborn children are more sensitive to the effects of lead exposure. Obvious symptoms of lead exposure do not occur until blood lead levels are very high. Individuals may have high blood lead levels that may be affecting their health but be unaware.

- **Anyone** who has been exposed to high levels of lead can experience serious health effects regardless of age, gender or health condition. Exposures to high levels of lead can cause heart disease, depression, fatigue, memory loss and can affect digestive function, concentration and sleep. Extremely high levels can be fatal. Lower levels of lead exposure can affect kidney function and blood production or cause an increase in blood pressure.
- **Children and unborn children** are more sensitive to lead exposure than adults. Lead exposure, even at lower levels, can cause developmental delays of normal childhood behaviours, affect language skills and cause intellectual disability.

- **Women who may become pregnant** are advised to minimize their lead exposure to protect their future child. Lead is stored in bones and since bone metabolism is increased in pregnancy, stored bone lead is released into the mother's blood. Once in the mother's blood, lead can move into the fetus and increases the risk of miscarriage, stillbirth, preterm birth, low birth weight, and can impair brain development.

### How can you (and your family) become exposed to lead at a firing range?

When ammunition containing lead is fired from a gun, microscopic lead dust is released into the air and settles on surfaces. You can then become exposed by breathing in lead particles.

Lead particles also form when the shot strikes the target, trap or other surfaces.

Eating, drinking or smoking after touching lead dust without washing your hands thoroughly can lead to you swallowing the dust.

Your family can also become exposed when lead dust is transferred from your skin, hair, clothing, bags or shoes to your vehicle and into your home.

### GET THE LEAD OUT: LEAD EXPOSURE IS PREVENTABLE

#### How can you reduce your exposure to lead at the firing range?

Workers, volunteers and shooters at firing ranges are at risk of lead exposure. Minimize your exposure by following these simple safety practices:

1. **Replace lead ammunition with lead-free ammunition**
  - a. Ask retailers about the availability of lead-free ammunition.
  - b. Use fully jacketed lead-free ammunition with a non-lead primer.

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## 2. Practice good hygiene

- a. Never eat, drink or smoke inside the firing range.
- b. Always wash your hands, arms and face after touching firearms or ammunition and before drinking, eating or smoking.
- c. Shower before leaving or immediately upon arriving home to ensure any lead residue is washed out of your hair and body.

## 3. Avoid contamination of your home

- a. Always remove contaminated clothing items before leaving the firing range and put them in a washable laundry bag.
- b. Wash your firing range clothes separately from other clothing.
- c. Use disposable shoe coverings or, if you can, leave a pair of shoes at the range stored in a separate sealed plastic bag.

## What should I do if I am concerned about my exposure to lead?

- Reduce your exposure to lead as much as possible. This will result in a decrease in your blood lead levels over time.
- Talk to your range operator about reducing the risk of exposure at the range. The range should have easy access to hand-washing facilities, a routine cleaning and maintenance plan, a well-functioning and appropriate ventilation system (if indoor) and trained workers/volunteers that can educate range patrons about lead exposure.
- If you have further questions about lead exposure, contact Health Links - Info Santé at 204-788-8200 or toll free at 1-888-315-9257; or contact Workplace Safety and Health at 204-957-SAFE (7233) or toll free at 1-855-957-SAFE (7233).
- **If you have questions or concerns about your health, talk with your health care provider.**

## Where can you find more information?

Manitoba Health – Environmental Health – Lead:  
[gov.mb.ca/health/publichealth/environmentalhealth/lead.html](http://gov.mb.ca/health/publichealth/environmentalhealth/lead.html)

Health Canada – Environmental and Workplace Health – Lead:  
[hc-sc.gc.ca/ewh-semt/contaminants/lead-plomb/index-eng.php](http://hc-sc.gc.ca/ewh-semt/contaminants/lead-plomb/index-eng.php)

Public Health Ontario – Lead Exposures among Recreational Shooters:  
[publichealthontario.ca/en/BrowseByTopic/EnvironmentalandOccupationalHealth/Pages/Lead-Exposures-Among-Recreational-Shooters.aspx](http://publichealthontario.ca/en/BrowseByTopic/EnvironmentalandOccupationalHealth/Pages/Lead-Exposures-Among-Recreational-Shooters.aspx)

Centers for Disease Control and Prevention – Workplace Safety & Health Topics – Indoor Firing Ranges: [cdc.gov/niosh/topics/ranges/](http://cdc.gov/niosh/topics/ranges/)