

What can I do to protect myself and my family from exposure to lead in drinking water?

Region of Peel – Public Health recommends that everyone minimize their exposure to lead – and especially pregnant women, infants and young children.

- Replace any plumbing fixtures and water service lines that contain lead (e.g., brass fixtures and cast iron can leach lead).
- Purchase only lead-free solder marked for use in potable water supplies.

Standard flushing instructions

- Homes and buildings built after 1990 have used lead-free pipes and solder. If the previous recommendations are followed, homes built after 1990 do not need to follow any flushing instructions.
- Homes built before 1990 should drink only cold flushed water. Another option is to use a water filter approved for lead removal (e.g., NSF-53). As a precaution, Region of Peel – Peel Public Health recommends homeowners flush their water before drinking, regardless of how long it has been since water was used in the home. **It is recommended to run the drinking water supplies until the water feels cold to the touch.** This may take anywhere from 15 seconds to two or more minutes, depending on how long it has been since water was used in the home. The longer the water has not been used in the home, the longer the flush should be.

- Institutions and schools have flushing protocols and requirements for some systems where water may sit in plumbing lines throughout the day. Generally, larger buildings, such as schools, can take considerably longer to flush.

Where can I get more information about lead?

Call the Region of Peel – Public Health at 905-799-7700, toll free at 1-888-919-7800 or visit the following websites:

- Region of Peel – Lead drinking water testing
<http://www.peelregion.ca/pw/water/quality/lead-in-water.html>
- Health Canada – Information on the health effects of lead
www.hc-sc.gc.ca/iyh-vsv/environ/lead-plomb_e.html
- U.S. EPA – Information on lead in drinking water
<http://www.epa.gov/safewater/lead/index.html>
- World Health Organization – Information on lead poisoning
www.who.int/water_sanitation_health/diseases/lead/en/



facts about **lead**
in drinking water

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 **Region of Peel**
Working for you
Public Health

What is lead?

Lead is a silvery grey heavy metal which occurs naturally in soil. It has been widely used since early times. Today, lead is used in pigments (colour dyes), chemicals, solder, other alloys and sheathing around cables.

How are people exposed to lead?

The four most common ways people are exposed to lead include air, water, dust/dirt and food.

The following chart shows how much lead is contributed from each of these sources in adults:

Air	about 3 %
Drinking water	about 30 %
Dust/dirt*	about 15 %
Food	about 52 %

* Children tend to have a much higher percentage of lead contribution from dust/dirt.

Why is lead sometimes present in water?

Historically, lead was used in plumbing, fittings and in solder to join pipes together in water distribution systems. If water stays in these distribution piping systems for long periods of time, lead may dissolve into the water.

Industrial air emissions, industrial discharges, rocks, soil and natural processes are other possible sources of lead in water.



How much lead is in the Region of Peel's municipal water?

The levels of lead in the Region of Peel's municipal water are so low that they cannot be detected (below 0.44 parts per billion). The water supplied to Mississauga, Brampton and parts of Caledon comes from Lake Ontario, which naturally contains very low levels of lead.

In your home, lead may dissolve into drinking water if there is no water flow for a few hours. To reduce your lead exposure in drinking water, please refer to the flushing instructions on the last page of this brochure.

What is the Canadian standard for the level of lead in drinking water?

The current Canadian and Ontario maximum acceptable concentration (MAC) for lead in drinking water is 0.01 milligrams per litre (10 parts per billion).

How does lead affect human health?

Lead has no known function or benefit to people. In fact, lead is considered toxic to people even in small amounts. Low levels of lead can affect the immune system, teeth/bone, kidneys, as well as contribute to increased blood pressure.

Lead is especially harmful to the developing brain of a fetus during pregnancy and in young children. Elevated blood lead levels in children can cause learning disabilities, behavioural problems and reduced IQ.

For information on health effects of exposure to high levels of lead, visit the websites listed on the back of this brochure.

What are the symptoms of lead toxicity from drinking water?

A person exposed to low levels of lead for a short term would not show any visible symptoms. Symptoms from long-term exposure are very slight and not easily recognized.

For information on symptoms of exposure to high levels of lead, visit the websites listed on the back of this brochure. These symptoms are not expected for people who have been exposed to lead in drinking water alone. If you experience any of these symptoms, see your doctor.

Can I be tested for lead?

A blood or bone lead test can be performed to measure lead exposure. A head hair analysis is not as reliable to check lead levels.

Please speak with your family doctor for more information if you are interested in these tests. Your doctor will determine which test you should take.