HEALTHINFO

ENVIRONMENTAL HEALTH

LEAD IN DRINKING WATER

What is lead?

Lead is a soft, toxic metal which occurs naturally in the environment. Before the dangers of lead were known, lead was used in many items such as paint, gasoline, lead crystal, fertilizers and glazes for pottery and dinnerware. Since the 1970s the use of lead in consumer products has steadily decreased, which has significantly reduced Canadians' exposure to lead.

How could lead get into my drinking water?

Lead is rarely found in sources of drinking water. Your municipal water supply delivered to your house is required to meet the Ontario Drinking Water Standards for lead of less than ten micrograms per litre (10 μ g/L). Lead may enter the drinking water from:

- Having an older home with lead service line pipes connecting the street water main to your indoor plumbing system.
- The use of lead soldering in plumbing lines.
- Older brass faucets, some of which may contain lead.

Most homes constructed before the mid 1950s had lead water service lines. By 1958 copper water service lines became the standard in the plumbing industry. Lead-based solder was also used in plumbing until the late 1980s, at which point it was prohibited.

What is the risk of lead contamination from drinking water?

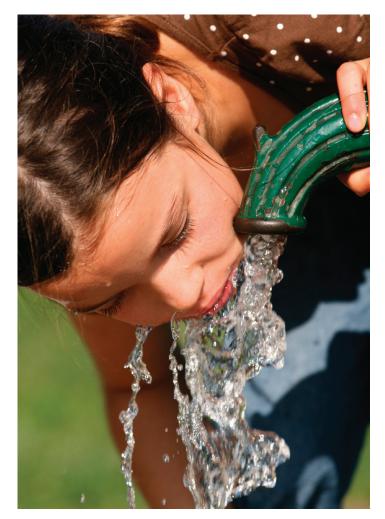
Infants, children and pregnant or nursing women are most at risk for the health effects from exposure to lead. Exposure to high levels of lead can result in delayed physical and mental development in children under the age of six.

Water with lead levels above 10 μ g/L should not be used to prepare powdered or concentrated baby formula. If your water does have elevated lead levels, you should prepare baby formula with water from an alternative source.

Adults and children over six years old are not likely to be affected by the amount of lead in drinking water, but high lead levels from a combination of sources can result in kidney problems or high blood pressure.

How can I tell if I have lead in my water pipes?

- Find out if your house was built before the mid-1950s. If it was, you are likely to have a lead service line. You can check the Purchase Agreement or the local Land Registry Office to verify the year your home was built.
- If possible, look at the pipe that goes into your water meter. If it is grey, scratches easily and does not sound hollow when you tap it, it may be lead.
- If you suspect there may be lead in your water and you would like to have it tested, you may submit a water sample for analysis at a certified water testing laboratory. Contact a licensed laboratory for details and costs. A list of licensed labs is available at www.ontario.ca/drinkingwater.



How can I minimize my exposure to lead in my older home?

If your water has been shown to have lead levels above the standard of 10 μ g/L, the following recommendations should be followed:

- 1. Don't drink water that has been standing in your household water pipes for more than six hours. Let the water run for approximately one minute or until the water temperature becomes constant. Flushing the toilet and washing your hands, or taking a shower, is more than sufficient to flush any standing water from your pipes each morning.
- 2. Always use cold water for drinking, cooking, and preparing beverages, even after flushing the pipes. Lead dissolves more easily into hot water than cold water. Boiling water does not remove lead.
- Children and pregnant women should use an approved filtration system to reduce lead, or use bottled water. An end-of-tap filter that is certified by the National Sanitation Foundation (NSF) is recommended. Some of the pitcher-style filters are not recommended for lead reduction.
- 4. For bottled water, check the label to ensure it is leadfree. It will be listed on the analysis label and is also referred to as Pb. Not all bottled water is lead-free. Tap water is safe for bathing, showering, brushing teeth, and washing dishes and clothes.
- 5. If you have lead service lines, consider replacing the portion of the service line that is on your private property.



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