

Lead in Drinking Water

Water suppliers are responsible for providing drinking water that meets the Guidelines for Canadian Drinking Water Quality for lead. However, under certain conditions, lead can leach into drinking water through contact with building plumbing after it has been delivered to a property.

What are the guidelines for lead in drinking water?

The Guidelines for Canadian Drinking Water Quality set a maximum acceptable concentration of 0.005 mg/L (5 parts per billion) for total lead in drinking water, measured at the tap. Every effort should be made to maintain lead levels in drinking water as low as possible. The guideline is designed to protect pregnant women, infants and children as they are the most vulnerable. It is based on average concentrations in water consumed for extended periods.

For more information about the guidelines, visit Health Canada – Guidelines for Canadian Drinking Water Quality www.canada.ca/en/healthcanada/services/publications/healthyliving/guidelines-canadian-drinking-waterquality-guideline-technical-document-lead.html.

What are the health concerns?

According to Health Canada, even ingesting a low level of lead may be harmful. Lead can harm the intellectual development, behaviour, size and hearing of developing fetuses, infants and young children. The health impact depends on many factors including the amount consumed over time, age, nutrition and underlying health issues.

People may ingest lead from many sources, such as food, drinking water, soil, paint and dust.

There is no evidence that drinking water in B.C. is a significant source of lead intake.

As the skin does not easily absorb lead from water, exposure to lead from showering, bathing or cleaning is not a concern. For more information about lead paint, see [HealthLinkBC File #31 Lead Paint and Hazards](#).

How can lead get into my drinking water?

Lead was once commonly used in drinking water plumbing, including: bronze, copper and brass pipes, taps, fixtures, and solder (used for joining metal pipes). In 1989, the BC Plumbing Code changed to restrict the use of lead in plumbing. Buildings constructed before 1989 may be at a higher risk of having lead in drinking water due to corrosion of the plumbing.

The amount of lead released into the water depends on the plumbing materials used, the corrosiveness of the water, and the length of time the water sits in the plumbing.

What is being done to address lead in drinking water?

The Ministry of Health works with the regional health authorities, other ministries and the federal government to develop best practices and policies, and provide advice to water suppliers and the public on reducing lead ingestion.

Some water suppliers take steps to adjust the qualities of water to reduce corrosion. Schools have been advised to sample water to ensure lead is at safe levels. If levels are not safe, they are advised to take the necessary steps to reduce lead in school drinking water.

Owners of buildings are responsible for assessing their own plumbing and taking actions to reduce lead.

How can I protect myself and my family?

If elevated lead in drinking water is suspected or has been measured in your water supply, you should reduce your exposure to the lead. If you are concerned about your child's or your own current or past exposures to lead, you should discuss your concerns with your health care provider.

Identify the problem

Generally, the water supplier is responsible for the service line up to the water meter or valve at the property line. Your water supplier will have information on water quality in their distribution system. You will have to get your water tested for lead by a laboratory to find out what the water quality is from your tap. Lead levels can change during the day, and a sample taken first thing in the morning before using water will generally show the worst case scenario.

If your home was built before 1989, your plumbing may be at higher risk of containing lead. A plumber can help identify if your home has leaded plumbing parts, and if the part of the service line on your property is made of lead.

Take action

If your home has a high amount of lead in its water due to your plumbing, you can flush stagnant water from pipes to reduce lead exposure.

To flush water, let your cold water tap run for 1 to 5 minutes or until the water turns colder. You should do this before drinking or cooking first thing in the morning or any other time the plumbing system has not been used for several hours.

Always use cold tap water for drinking or cooking since hot water can increase the leaching of lead. *Note: Boiling water will not remove lead and may actually increase lead concentrations in water.

You can use water filters and treatment devices to remove lead from drinking water. Carbon-based, reverse osmosis and distillation type filters that are certified to the NSF International standard for removing lead are effective. For best results, install these filters and devices at the tap that is used for drinking water the most, such as the kitchen tap. Make sure to maintain them according to the manufacturer's instructions.

You can also fix the problem by removing or replacing any sources of lead, such as fixtures in your building or lead service lines to the water supply. Contact your local government to find out if any programs exist in your community to replace service lines.

For More Information

For more information on lead in drinking water, contact your water supplier directly. Or you can contact the environmental health officer at your local health authority by visiting www2.gov.bc.ca/gov/content/health/about-bc-shealth-care-system/partners/healthauthorities/regional-health-authorities or by phone at:

- First Nations Health Authority 604 693-6500, toll free 1 866 913-0033. Visit www.fnha.ca/what-we-do/environmental-health for Environmental Health officer contact information
- Fraser Health 604 587-4600
- Interior Health 250 469-7070
- Island Health 250 370-8699
- Northern Health 250 565-2649
- Vancouver Coastal Health 604 736-2033