

## 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 0.010 mg/L (10 parts per billion) for total lead in drinking water, measured at the tap. 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/health-canada/services/publications/healthy-living/guidelines-canadian-drinking-water-quality-guideline-technical-document-lead.html](http://www.canada.ca/en/health-canada/services/publications/healthy-living/guidelines-canadian-drinking-water-quality-guideline-technical-document-lead.html)

### What are the health concerns?

According to Health Canada, even low level ingestion of lead may harm the intellectual development, behaviour, size and hearing of developing babies, 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 typically a significant source of lead intake. As lead from drinking water is not well absorbed by the skin, 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 water pipes, bronze and brass fixtures such as taps, and as a component of solder. In 1989, the BC Plumbing Code was revised to restrict the use of lead in plumbing components. Buildings constructed before 1989 may be at a higher risk of having lead in 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 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 characteristics of water to reduce corrosion. Schools have been advised to undertake water sampling to ensure lead is at safe levels and if lead is found, take the necessary actions 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 detected in your water supply, you should take actions to reduce your exposure to 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; however to know what comes out of your tap, you will have to get your water tested for lead by a laboratory.

If your residence was built prior to 1989, your plumbing may be at higher risk of having components with lead content. A plumber can help identify whether your home has leaded plumbing components, and if the portion of the service line on your property is made of lead.

#### **Take action**

If your residence has elevated lead in its water due to your plumbing, you can flush the 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 increases the leaching of lead.

Household water filters and treatment devices, such as carbon-based filters, reverse osmosis and distillation type filters that are certified to remove lead from drinking water are also effective. For best results, install these filters and devices at the tap that is most commonly used for drinking water, such as the kitchen tap, and ensure they are maintained as per the manufacturer's instructions.

You can also address the problem permanently 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.

Note: Boiling water will not remove lead.

### **For More Information**

For more information on lead in drinking water, contact your water supplier directly, or contact the environmental health officer at your local health authority by visiting

[www2.gov.bc.ca/gov/topic.page?id=F220C3323A3B42D594A07A81947392BF](http://www2.gov.bc.ca/gov/topic.page?id=F220C3323A3B42D594A07A81947392BF) 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](http://www.fnha.ca/what-we-do/environmental-health) for Environmental Health officer contact information.
- Fraser Health 604-587-4600
- Interior Health 250-862-4200
- Northern Health 250-565-2649
- Vancouver Coastal Health 604-736-2033
- Vancouver Island Health 250-370-8699