

Fluoride in Private Drinking Water

What is fluoride?

Fluoride is a mineral found in rocks, soil, water and various foods. It helps to strengthen tooth enamel and prevent cavities.

Where does fluoride come from?

Fluoride is found naturally throughout the environment. In groundwater, it occurs when the water comes into contact with rocks and soils that contain fluoride. Most sources of drinking water in Canada have low levels of fluoride that occur naturally. Some municipal sources of water have fluoride added.

Small amounts of fluoride in water can also come from:

- Agricultural run-off and infiltration of chemical fertilizers
- Industrial manufacturing processes
- Septic and sewage treatment processes

What are common sources of fluoride?

Common sources of fluoride ingested by people include:

- Toothpastes and mouthwashes
- Drinking water
- Food and beverages, especially tea and fish

What are the health benefits of fluoride?

Fluoride helps prevent tooth decay (cavities), in children and adults. Please refer to the Canadian Dental Association website below for more information on this.

What are the health risks of ingesting too much fluoride?

Dental fluorosis is a condition caused by a child receiving too much fluoride during tooth formation (i.e. up to the age of six). Mild fluorosis can lead to fine, white streaks on the permanent teeth. With moderate fluorosis visible changes of a cosmetic concern on the surface of teeth may be noticeable. In severe fluorosis, teeth may appear stained and pitted. In Canada, moderate or severe fluorosis is extremely rare. Scientific studies have not found a credible link between fluoride at the levels typically found in drinking water and any other negative health effects.

What is an acceptable level of fluoride in drinking water?

The maximum acceptable concentration (MAC) for fluoride in drinking water is **1.5 mg/L**. Exposure at or below this level is not a health risk and should not cause changes to the appearance of teeth (i.e. moderate or severe fluorosis), taking into consideration all other sources of potential fluoride exposure.

How do I know if there is fluoride in my well water?

Fluoride is tasteless, odourless and colourless. The only way to know if you have fluoride in your well water is to have your well water tested by an accredited laboratory. All wells should be tested at least once every 5 years, especially in areas known to have elevated levels of fluoride. More frequent testing is recommended if fluoride levels are at or near the drinking water standard. A complete list of laboratories licensed to do water fluoride testing can be found on the Ministry of Environment and Climate Change website at <https://www.ontario.ca/page/list-licensed-laboratories->.

Public drinking water systems are tested regularly for fluoride under the *Safe Drinking Water Act*.

What should I do if there is more than 1.5 mg/L of fluoride in my drinking water?

Please be advised that boiling your water will not reduce fluoride – rather, boiling will only serve to concentrate the fluoride. A private residential drinking water treatment device (e.g. reverse osmosis) can be used to reduce naturally occurring fluoride concentrations to below 1.5 mg/L. A water treatment specialist can provide advice on appropriate devices, limitations, as well as maintenance requirements. It is particularly relevant to consider such a device if young children will be consuming the drinking water on a regular basis.

Additional References:

Canadian Dental Association: https://www.cda-adc.ca/en/oral_health/faqs/fluoride_faqs.asp

Health Canada: <http://www.hc-sc.gc.ca/hl-vs/iyh-vsv/envIRON/fluor-eng.php>

Health Canada: <https://www.canada.ca/en/health-canada/services/publications/healthy-living/guidelines-canadian-drinking-water-quality-guideline-technical-document-fluoride.html>

More information

Please contact Health Connection at 705-721-7520 or 1-877-721-7520 if you'd like more information about fluoride in private drinking water.