

## Water Fluoridation Facts

### What is fluoride?

Fluoride is a mineral found naturally in our water, air, food and soil. At low concentrations, fluoride in drinking water prevents dental cavities and improves oral health.

Fluoride is added to water in a process called water fluoridation. Natural fluoride levels in the water supply are supplemented to an amount that will help protect against tooth decay or cavities.

In Canada, the recommended amount of fluoride is 0.7 mg/L in drinking water for communities that wish to add fluoride to their water supply. Reliable equipment and careful monitoring help maintain these fluoride levels. The maximum acceptable concentration (MAC) in the Canadian Guidelines for Drinking Water Quality is 1.5 mg/L. Whether naturally occurring or added during the water treatment process, fluoride levels should never exceed this level.

### How does fluoride prevent tooth decay?

Fluoride protects teeth when they first appear and as they develop over time. Fluoride bonds with the enamel or surface of teeth, making them more resistant to bacteria and decay. It also helps to repair the earliest stages of tooth decay.

### Where can fluoridation occur?

Fluoridation can occur in public, private, and community water supplies and/or wells. Water suppliers must test fluoride levels in water. All water suppliers should make the

test results available to users and the public. If you have a private/domestic well, you should have a comprehensive chemical analysis done that includes fluoride testing.

### What are the benefits of water fluoridation?

Fluoride levels in Canadian drinking water have been adjusted for the past 70 years. Decades of extensive research shows that water fluoridation is a safe, effective and low-cost way to improve oral health for people of all ages.

Studies show that children who drink fluoridated water can expect up to 35 per cent less decay than those who drink non-fluoridated water. By using fluoridated water, children develop strong teeth. As adults, they will have fewer cavities or missing teeth. Adults who drink fluoridated water can also expect to have less tooth decay.

### Is fluoridation safe?

Yes. Fluoride has been studied thoroughly as a public health measure and is deemed safe in low doses.

Since the 1940s, scientific studies have shown that the use of fluoride for oral health has had no harmful effects.

Extensive reviews of water fluoridation by leading experts have found no connection between fluoridation and cancer. There is no evidence that low levels of exposure to fluoride causes problems to other parts of the body. It is not associated with birth defects or syndromes. However, as with any

naturally occurring element, high concentrations may be bad for your health.

Fluoride is recommended to prevent tooth decay and to improve oral health. Water fluoridation is endorsed as a valuable and beneficial public health measure by:

- Health Canada
- The Canadian Dental Association
- The Canadian Medical Association
- The Canadian Pediatric Society
- The Canadian Public Health Association
- The World Health Organization

### **Should water supplies be fluoridated?**

Water fluoridation plays a key role in oral health. Water fluoridation requires a community vote of more than 50 per cent to be installed or removed.

Some communities have stopped water fluoridation due to unfounded fear about harmful effects. Communities that have stopped the use of fluoridation have increased rates of tooth decay.

### **For More Information**

For more information on water fluoridation, please contact your dentist or dental hygienist, the dental program at your local public health unit, or the British Columbia Dental Association <https://bcdental.org/>.