

FLUORIDE IN DRINKING WATER

SPEAKING NOTES

What is Fluoride and why is it added to drinking water?

Technically, Fluoride is an inorganic mineral (an anion of Fluorine) that has proven effective in dental care to prevent tooth decay. It is often added to public water systems in order to improve the general dental health of the community, especially among children.

Why is everyone talking about Fluoride?

Fluoride has become a contentious issue in the United States fueled by the current Administration and unfounded doubts raised by the current Secretary of Health. No new evidence has been provided, but the safety of fluoride is being widely questioned and we are beginning to see its use banned in some states.



Meanwhile in Canada, we continue to follow the research – weighing the tremendous benefits against the very low, if any, risks. Fluoride is also making the news in Canada as we see Calgary re-introducing Fluoride to their drinking water system. Calgary stopped adding Fluoride in 2011, but a study of dental health in Alberta from 2011-2019, showed a significant decline in oral health in Calgary as compared to Edmonton that had continued to add Fluoride. The University of Alberta study demonstrated that the removal of Fluoride negatively affected young children's oral health and led to a significant increase in caries-related dental treatments.

Who decides if Fluoride is added or removed?

The decision to add or remove Fluoride is made by the local municipal council, NOT by the local water utility. The decision to add Fluoride is not a water engineering decision, but is a wider public health discussion directed by the local public health authority.

Fluoride is not part of the process required to treat drinking water to meet the Canada Drinking Water Guidelines or provincial regulations. It is added after the treatment process. The amount added varies according to the local directive and takes into account the levels of Fluoride naturally occurring in the local source water.

The formal decision to add or remove Fluoride is made by the municipal council responsible for drinking water services. Such a decision would only be made after extensive public engagement. Some provinces require a plebiscite or referendum of the community to guide such decisions.

What is the research?

The safety and efficacy of water fluoridation has been frequently studied and continues to be supported by current science, and the beneficial effects of fluoride in the prevention of dental cavities have been well documented in scientific literature. These benefits are recognized and endorsed by Health Canada and by national and international professional health organizations including the Canadian Dental Association and the World Health Organization.

Health Canada – Canadian utilities look to Health Canada and the Guidelines for Drinking Water Quality. These guidelines are developed cooperatively by the Federal-Provincial-Territorial Committee on Drinking Water. In June, 2011, Health Canada revised the Guideline Technical Document – Fluoride, which reaffirms the maximum acceptable concentration for fluoride in drinking water. The technical document also recommends an updated, slightly lowered optimal fluoride concentration for communities choosing to fluoridate their water supply. It states that while the fluoridation of drinking water supplies is a decision made by municipalities, or the appropriate provincial/territorial authority, Health Canada continues to strongly support water fluoridation as a safe, effective and cost effective public health measure to help prevent dental cavities.

The Canadian Dental Association (CDA) - The Canadian Dental Association (CDA) Position on Use of Fluorides in Caries Prevention supports fluoridation of municipal drinking water (at minimum levels required for efficacy as recommended by the Federal-Provincial-Territorial Committee on Drinking Water) as a safe, effective and economical means of preventing dental caries in all age groups.

The World Health Organization - In the technical document published by World Health Organization (WHO): Fluoride in Drinking-water Background Document for Development of WHO Guidelines for Drinking-water Quality, WHO stated that low fluoride concentrations in drinking water provide protection against dental caries, especially in children.

What concerns might a Water Utility have?

Again, the decision to add or remove Fluoride is not made by the water utility, but rather by the municipal council, with direction from the local public health authority.

Of course there are costs related to adding Fluoride - the initial equipment costs, regular maintenance, and then the cost of the fluoride itself.

Like all the chemicals and minerals used in the water treatment plant, Fluoride requires careful handling and can be dangerous in concentrated form. All staff are trained on appropriate material handling and their health is monitored.

References:

For direct links to the research, see the CWWA Information Sheet on Fluoride.