San Francisco Water Power Sewer
Services of the San Francisco Public Utilities Commission

Fluoridation

WHAT IS FLUORIDE?

Fluoride is an abundant element in the Earth's crust that is naturally found in rocks, soil, and fresh and ocean water. The erosion of rocks and soils containing fluoride contribute to leaching of fluoride at varying levels in both surface and groundwater. Other sources of fluoride in water supplies are due to a variety of emissions from industrial processes.

WHAT IS FLUORIDATION?

When fluoride is present in drinking water at optimal levels, it has been shown to promote oral health benefits. The amount of natural fluoride in water supplies is generally not enough to provide these benefits. Water fluoridation is the addition of small amounts of fluoride to a water supply to achieve the optimal fluoride level that helps prevent tooth decay. The San Francisco Public Utilities Commission (SFPUC) has been supplying fluoridated water to San Francisco residents and the majority of its wholesale customers since the early 1950s.

FLUORIDE MONITORING AND TREATMENT

Drinking water quality is regulated by established Maximum Contaminant Levels (MCLs) for the protection of public health. The Division of Drinking Water of the SWRCB regulates fluoride levels in public drinking water systems and as of April 2015, the optimal level for fluoride is 0.7 mg/L (or parts per million, ppm). The regulatory limit for fluoride is 2 mg/L (or parts per million, ppm). The SFPUC routinely monitors for the levels of fluoride in drinking water to meet the state regulation and submits fluoride monitoring results each month, which are publicly available and accessed here:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/Fluoridation.shtml

The SFPUC has monitored fluoride in all its waters, including surface water reservoirs, groundwater wells, and treated water delivered to homes. The SFPUC's drinking water is safe to drink, with fluoride levels in water delivered to customers far less than the State's drinking water maximum contaminant level (MCL) of 2 mg/L.

As summarized in the table, from 2016 to 2019 average fluoride levels in treated drinking water ranged from 0.65 to 0.71 mg/L. These data are consistent with the optimal fluoride level established by the State of 0.7 mg/L.

HOW MUCH FLUORIDE IS IN MY WATER?

Mandated by State law AB 733, our fluoride target level for drinking water is 0.7 milligrams per liter (mg/L, or parts per million, ppm), consistent with the May 2015 State regulatory guidance on optimal fluoride level. Currently, the state regulatory limit or Maximum Contaminant Level (MCL) for fluoride is 2 milligrams per liter (mg/L, or parts per million, ppm). This is the highest level of fluoride that is permitted in drinking water.

SFPUC Fluoride Monitoring Results for Treated Drinking Water, 2016 to 2019 (mg/L)

Year	Range	Average
2016	0.51 to 0.80	0.65
2017	0.53 to 0.89	0.68
2018	0.58 to 0.96	0.69
2019	0.20 to 0.92	0.71

Data based on daily sampling from 9 sites in the system.

WHAT ARE THE BENEFITS OF FLUORIDATION?

One of the most common chronic diseases of childhood are cavities or tooth decay, specifically for those who lack access to dental care. Water fluoridation is a widely accepted practice proven to be safe and effective for preventing and controlling tooth decay. In addition, medical and dental experts endorse water fluoridation as the single, most effective public health measure to improve oral health. Therefore, fluoridated water benefits the entire community, children and adults of all ages, especially low-income and underserved populations.

Fluoride supplementation in levels administered for drinking water, in addition to fluoride intake accounted from all other sources, is safe for humans and all animals.

ARE THERE ANY HEALTH CONSIDERATIONS OF FLUORIDATED WATER?

San Francisco residents have been drinking fluoridated water for more than 50 years with no known and/or apparent adverse health impacts. Infants fed formula mixed with water containing fluoride at the optimal level of 0.7 mg/L recommended by the CDC may have an increased chance of developing tiny white lines or streaks in their teeth. These marks are referred to as mild to very mild fluorosis, and are often only visible under a microscope. Even in cases where the marks are visible, they do not pose any health risk. CDC considers it safe to use optimally fluoridated water for preparing infant formula.

To lessen this chance of dental fluorosis, you may choose to use low-fluoride bottled water to prepare infant formula. Nevertheless, children may still develop dental fluorosis due to fluoride intake from other sources such as food, toothpaste and dental products. For additional information on infant formula and fluorosis, please visit the CDC website: **https://www.cdc.gov/fluoridation/faqs/infant-formula.html**

CONSUMER RESOURCES: REGULATION/HEALTH

- SFPUC: Annual Water Quality Report
  https://sfwater.org/index.aspx?page=634
- SWRCB: Fluoridation
  https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/Fluoridation.html
- CDC: Community Water Fluoridation
  https://www.cdc.gov/fluoridation/index.html

We're Committed to Quality: Our highly trained chemists, technicians and inspectors consistently monitor the water we serve—throughout our system, every day of the year. For additional information and materials, please visit **sfwater.org/quality**. For questions about YOUR water, please call 311. You can also visit **311.org**.

And follow us on

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