

Water Fluoridation in Connecticut

What is water fluoridation?

Fluoride is a natural mineral that is shown to protect against tooth decay. Almost all water has some naturally occurring fluoride, but usually not enough to prevent tooth decay. The amount of fluoride in many drinking water supplies is changed to a level to help reduce tooth decay and promote good oral health. This practice is known as water fluoridation. Thousands of research studies have shown that water fluoridation is safe, effective and the best way to improve oral health in a community. Given the large decrease in tooth decay during the past 60 years, the Centers for Disease Control and Prevention (CDC) named water fluoridation one of Ten Great Public Health Achievements of the 20th Century

(<http://www.cdc.gov/mmwr/preview/mmwrhtml/00056796.htm>).

What are the health benefits of adding fluoride to drinking water?

The CDC highlighted the following as how communities benefit from drinking water fluoridation (Sept. 2009):

1. Although dental caries (tooth decay/cavities) can be prevented, it remains the most common chronic disease of children aged 5 to 17 years. In the U.S., tooth decay affects 1 out of 4 elementary school children, 2 out of 3 adolescents, and 9 out of 10 adults. Fluoride works by stopping or even reversing the tooth decay process. It keeps tooth enamel strong and solid, and helps to re-mineralize tooth surfaces. Also it prevents cavities from continuing to form.
2. Both children and adults benefit from water fluoridation. Studies have shown that people in communities with fluoridated water have 20% to 40% less tooth decay than those in communities without fluoridated water.
3. The cost to fluoridate water for the lifetime of one person is less than the cost to treat one cavity.
4. Every dollar spent on fluoridation saves \$38 in avoided dental bills.
5. In 2002, the CDC estimated that 66% of U.S. residents who receive their water from community water systems, or 170 million people, had access to fluoridated water. The Healthy People 2010 goal is to increase this to 75%.

What are the requirements for water fluoridation in Connecticut?

Fluoridation became a law (CGS Sec. 19a-38) in Connecticut on May 18, 1965, initiated by Public Act 156. Public Water Systems (PWSs) serving 50,000 or more were required to begin fluoridation on January 1, 1967, and PWSs serving 20,000 to 49,999 people were required to begin fluoridation on October 1, 1967.

Connecticut General Statute Section 19a-38 states that “wherever the fluoride content of public water supplies serving twenty thousand or more persons supplies less than eight-tenths of a milligram per liter of fluoride, the person, firm, corporation or municipality having jurisdiction over the supply shall add a measured amount of fluoride to the water so as to maintain a fluoride content of between eight-tenths of a milligram per liter and one and two-tenths milligrams per liter.”

Furthermore, the Regulations of Connecticut State Agencies (RCSA) Section 19-13-B102(e)(7)(L) states that “where the fluoride content is artificially adjusted, tests for fluoride shall be made on each source so adjusted at least daily. The fluoride content of such supplies shall be maintained between 0.8 mg/l and 1.2 mg/l. If the monthly average of the daily tests does not fall within these limits it shall be reported as a failure to comply with this subparagraph. If warranted by conditions that may be detrimental to the health of consumers, samples from each fluoridated source shall be submitted to the department for testing.”

Which public water systems are currently fluoridated in Connecticut?

A list of municipalities in Connecticut with communities receiving fluoridated drinking water is available on the Connecticut Department of Public Drinking Water Section’s website at www.ct.gov/dph/lib/dph/drinking_water/pdf/fluor_list.pdf.

What are the current fluoride levels maintained by fluoridated systems in CT and what does the future hold?

Although public water systems serving more than 20,000 people must be within the range of 0.8 mg/l to 1.2 mg/l of fluoride as set in CGS Sec. 19a-38, many public water systems keep their systems near the lower end of this range thus preventing tooth decay while reducing the chance of children receiving too much fluoride. Connecticut is carefully watching and tracking new reports from federal agencies such as the Department of Health & Human Services (HHS) and the Environmental Protection Agency (EPA) on their efforts to make new recommendations for water fluoridation, and will make changes to the statute and regulation, as necessary, to consider the maximum dental health benefits to the consumers. The efforts by HHS & EPA on proposed changes to the recommended standards and guidelines of fluoride in drinking water can be found at www.hhs.gov/news/press/2011pres/01/20110107a.html.

Where I can find more information on water fluoridation?

More resources of information about fluoride in drinking water:

- CDC - www.cdc.gov/fluoridation/
- National Research Council - <http://www.nationalacademies.org/nrc/>
- American Dental Association www.ada.org/index.aspx

Who I should contact at CTDPH if I need more information?

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