



What is Fluoride? Fluoride is a natural element found in rocks and soil, in fresh water, and in ocean water. Waters in and around the United States have natural fluoride levels that range from 0.1 to more than 12 parts per million (ppm).

What is the optimal fluoride level to prevent tooth decay?

In 1962, the recommended fluoridation range was 0.7 to 1.2 milligrams per liter. In 2015, the U.S. government decreased its recommended level of fluoride in drinking water for the first time in a half-century, to prevent staining of tooth enamel caused by overexposure to fluoride. According to the U.S. Department of Health and Human Services (HHS), the current optimal fluoride level in drinking water to prevent tooth decay should be 0.7 milligrams per liter (mg/l) of water. Health experts recommended the change because Americans now have access to more sources of fluoride, including toothpaste, mouth rinses and supplements prescribed by doctors / dentists.

What is community water fluoridation? Fluoride is a naturally occurring element and is present, usually at a very low level, in all water. The fluoridation of community water supplies takes the natural level of fluoride already in the water and supplementing it to reach a level known to prevent tooth decay.

What are the benefits of water fluoridation? Health experts endorse water fluoridation as the single, most effective public health measure to improve oral health. Fluoridation prevents tooth decay, strengthens tooth enamel, kills germs that cause tooth decay, and is a cost effective means of improving community health.

Are there any concerns for adding fluoride to my drinking water? Fluoride, the naturally occurring compound that prevents cavities and tooth decay is still sparking heated debates, seven decades after it was first added to America's water supply. Fluoride in large quantities is not beneficial. Too much exposure to fluoride could result in fluorosis -- white stains in the enamel of their teeth. In fact, potential side effects can also include joint pain, bone fractures, sperm decline, dementia, premature puberty, gastrointestinal distress, immune-system dysfunction, (*possibly*) cancer, and (*also possibly*) lower IQ in children. Children have smaller bodies than adults and thus are at risk of relatively greater exposure when they drink.

What is fluoride toxicity? The sources of human exposure to fluoride have drastically increased since community water fluoridation began in the U.S. in the 1940's, and this means that the potential for cases of fluoride toxicity is also increasing. In addition to water, sources of fluoride now include food, air, soil,

FLOURIDE FAQs

pesticides, fertilizers, dental products used at home and in the dental office (*some of which are implanted in the human body*), pharmaceutical drugs, cookware, clothing, carpeting, and an array of other consumer items used on a regular basis.

What is the cost of water fluoridation? It is estimated that fluoridating water can cost up to \$3 to \$6 per person per year.

The decision to fluoridate a water supply is made by the State or local municipality, and is not mandated by EPA or any other Federal entity. From 2000-2006 more than 235 U.S. communities in 36 states voted to adopt community water fluoridation. Approximately 93% of Maryland residents on public water supplies receive optimally fluoridated water, either naturally or by supplementation, but there is no statute or regulation in Maryland regarding water fluoridation. However, in tandem with the Maryland Department of the Environment (MDE), the Office of Oral Health (OOH) continues to strongly endorse fluoridation of community water supplies at the optimal level recommended by CDC.

Are there any Regulations? In the United States the EPA, under the authority of the Safe Drinking Water Act has set a Maximum Contaminant Level (MCL) goal for fluoride at **4.0 mg/L**. This means that utilities must ensure that water from the customer's tap does not exceed this level.

Does MetCom add Fluoride to the public drinking water supply? Although fluoridation of public water supplies has been backed by many dental organizations in the nation, the Commission does not add and additional fluoride to the public drinking water supplied to its customers because it is naturally occurring in surface and groundwater. The Metropolitan Commission's public drinking water supply is in complete compliance with all existing state and federal public drinking water regulations. We publish all Water Quality Reports on our website @ <http://metcom.org> under the Operations tab. The 2020 Reports show that six well sites produce water with natural fluoride levels \geq the 0.7 mg/l recommendation with another seven greater than 0.5 mg/l and the remainder mostly \geq 0.2.

A survey was conducted by the Commission several years ago, specifically requesting input from its customers on supplementing the public water supply with additional fluoride. Our customers were predominantly not in favor of changing the chemistry of their water supply. If your dentist has any questions on the amount of fluoride in the public water supply, please have them contact us or visit our website.

