

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). One ppm is like one cent in \$10,000.00. The optimal fluoride level for a community water system is 0.7ppm.



Community water fluoridation is simply adding enough fluoride to the natural level of fluoride in the water to reach the recommended level for preventing 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.
- Is a cost effective means of improving community health.

Who supports water fluoridation?

Virtually all major national and international health, service and professional organizations endorse or support water fluoridation, including the following:

- ✓ American Dental Association
- ✓ American Medical Association
- ✓ American Academy of Pediatrics
- ✓ American Academy of Pediatric Dentistry
- ✓ US Public Health Service
- ✓ Centers for Disease Control and Prevention
- ✓ World Health Organization
- ✓ National Academy of Sciences
- ✓ American Water Works Association
- ✓ Maryland Department of Health and Mental Hygiene
- ✓ Maryland Department of the Environment

Should my child continue taking fluoride supplements?



If your child drinks from a community water supply or private home well, which has been tested and

found to have sufficient levels of fluoride, then the Maryland Department of Health and Mental Hygiene does not recommend taking prescription fluoride supplements.

If you do not know the concentration of fluoride in your water, it is important to contact your local health department and/or have it tested, before taking any fluoride supplements. Consult your medical or dental provider before making any decisions.

Should my family continue brushing with fluoride toothpaste?

Yes. Fluoridated water is part of a total oral health program which is a community driven public health benefit. You also get protection from germs that cause cavities when you brush with fluoridated toothpaste at least twice a day for two minutes and floss every day.

How Much Toothpaste with Fluoride?



Under Age 2:
Slight smear the size of a grain of rice



Under Age 3-5:
1/2 of pea-size



Age 6+: pea-size

It is best to spit and not rinse after brushing.

Toothbrush images under license from the Calgary Health Region™.

Make sure your children minimize their risk of swallowing toothpaste by controlling the amount of toothpaste present on the toothbrush.



◆ The City of Baltimore began water fluoridation in 1952. Currently, in the State of Maryland, 93.1% of the population served by community water systems (more than 4.5 million people) receives fluoridated water.

◆ All drinking water additives (including fluoride) are required by state law to be tested for purity and certified safe, regardless of where they are manufactured.



Does my sink water filter remove fluoride from water?

Children who drink filtered water (from filter pitchers, faucet filters, refrigerator filters, etc.) may not

be receiving adequate dietary fluoride and may require fluoride supplements. Consult the filter manufacturer and your medical or dental provider before making any decisions.

WHICH WATER FILTER SYSTEMS REMOVE FLUORIDE?*

TYPE OF FILTER SYSTEM	EFFECT ON FLUORIDE
Activated Carbon Filter (the majority of home faucet and pitcher filters, including Brita and PUR filters)	Does not typically remove fluoride (CDC, 2008)
Activated Carbon filter w/ activated alumina	Removes over 80% of fluoride
Water Softener	Does not remove fluoride
Charcoal Filter	Does not remove fluoride
Reverse Osmosis	Removes up to 95% of fluoride
Water Distillation	Removes 100% of fluoride

*Adapted from: American Dental Association "Home Water Treatment Systems" 2010-03-23.



Does bottled water contain fluoride?

The U.S. Food and Drug Administration (FDA) does not require bottlers to list the fluoride concentration (how

many ppm) in a bottle of water unless the bottler adds additional fluoride.



Is Community Water Fluoridation Safe?

As with other nutrients, fluoride is safe and effective when used and consumed properly.

More than 50 years of evidence supports the effectiveness of fluoridated water and its ability to prevent, reduce, or even reverse the onset and development of tooth decay.

Approximately 184 million Americans drink fluoridated water. Community fluoridated water systems are present in 60 other countries. Through continuous research, drinking optimally fluoridated water has been scientifically proven to be safe, not toxic, and effective.

The addition of supplemental fluoride to drinking water can be compared to the addition of supplemental Vitamin D to milk.

- ◆ Both fluoride and vitamin D occur naturally and provide significant health benefits when present in a person's diet at sufficient levels.
- ◆ Sufficient levels of Vitamin D in a person's diet can prevent rickets in children and bone disease in adults. Sufficient levels of fluoride in a person's drinking water can reduce tooth decay and strengthen tooth enamel.



What Does Water Fluoridation Cost?



The average cost for a community to fluoridate its water ranges from \$0.62 a year per person in large communities to \$3.90 a year per person in small communities (2004 dollars). Over a lifetime, this is typically less than the cost of one dental filling to repair one decayed tooth.

Remember, when it comes to the costs of treating dental disease, everyone pays. Not just those who need treatment, but all of us—through higher health insurance premiums and higher taxes.

For most cities, every \$1 invested in community water fluoridation saves \$38 in dental treatment costs. Through fluoridation, communities can improve the oral health of their residents and save money for all of us.

Where can I learn more?

Visit the following web sites for more information on community water fluoridation:

- ◆ Centers for Disease Control and Prevention www.cdc.gov
- ◆ American Dental Association www.ada.org
- ◆ World Health Organization www.who.int

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The Department, in compliance with the Americans with Disabilities Act, ensures that qualified individuals with disabilities are given an opportunity to participate in and benefit from DHMH services, benefits, and employment opportunities.

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MARYLAND



COMMUNITY WATER FLUORIDATION

"The fluoridation of drinking water to prevent dental decay is recognized as one of 10 great public health achievements of the 20th century."

Centers for Disease Control and Prevention

"Community water fluoridation continues to be the most cost-effective, equitable and safe means to provide protection from tooth decay in a community."

U.S. Surgeon General, Vice Admiral Richard Carmona, M.D., M.P.H., F.A.C.S., 2004

"Since 1950, the ADA has unreservedly endorsed the fluoridation of community water supplies as safe, effective, and necessary in preventing tooth decay."

American Dental Association