Fluoridation is Safe and Effective

Fluoridation of community water systems is one of the 10 great public health achievements of the 20th century! Back in the 1930’s, researchers and dental professionals tried to determine why people in some communities had less tooth decay than people in other communities. They learned that the level of naturally occurring fluoride in the water was higher in the communities with better dental health. In the 1940’s, the first communities began adjusting the fluoride levels in their drinking water to provide for optimal tooth decay prevention. Many years of additional research and testing have shown that water fluoridation at optimal levels is safe and effective at reducing dental disease. In fact, there are now over 170 million people in the U.S. who are enjoying the benefits (i.e., good dental health and lower dental costs) of fluoride in their water.

Dental disease is the most common chronic disease in children, affecting at least 1 in 4 elementary school children and 2 in 3 adolescents. Untreated dental disease leads to pain, infection, tooth loss, and problems eating, speaking, and learning — all of which can impact future prospects for our children who are affected. Many adults also have untreated dental disease — and parents can pass the infection to their babies. Older Americans are at increased risk for tooth decay because the roots of their teeth can be exposed as a result of taking common medications. The message? All ages can benefit from the dental protection provided by fluoride.

Some people are concerned about potential negative effects of adjusting the fluoride in drinking water. But the amount of fluoride required to produce optimal dental benefits is a very tiny amount. As we all know, there are many things that are good for us in small amounts but harmful in larger amounts. This is true for vitamins and minerals, which are required for our cells to function properly. One example is calcium, which we know to be important for the formation, hardness and healing of our bones, but it is also required for many other processes, such as blood clotting, muscle contraction and nerve function. But, beware - you can have too much of a good thing! You need a little calcium, but you don’t want a lot. Too much calcium can impair the function of our nerves, cause drowsiness and extreme lethargy, and result in calcium deposits and kidney stones.

Likewise, vitamin A is mandatory for proper function of our eyes and assists with the development of our bones and teeth. If we don’t get enough vitamin A in our diets, we can suffer from night blindness or improper development of our bones and teeth. But, guess what? Too much vitamin A is also a problem! Too much vitamin A can cause blurred vision, dizziness, ringing in the ears, headache, insomnia, skin rash, nausea, vomiting, diarrhea, hair loss, joint pain, menstrual irregularity, liver damage, abnormal bone growth, and damage to the nervous system.

Fluoride, a mineral which is found naturally in most water throughout the United
States, is another example of something which can have beneficial effects at small concentrations, but can be harmful at higher concentrations. Community water systems that fluoridate their water adjust this natural fluoride concentration by a tiny amount so that it ends up at about 1 part fluoride per million – a level which provides optimal benefit to tooth development and maintained dental health. Of course, just like calcium and vitamin A, you don’t want too much fluoride. The negative effects that are referred to by some who are against fluoridation come from animal studies that were undertaken to determine what levels of fluoride could produce harmful effects, or were reported in communities whose drinking water had higher-than-optimal naturally occurring fluoride (in other words, circumstances with higher fluoride levels than what would be present in a fluoridated community water system).

After more than 70 years of research, the consensus of the scientific and medical communities, including scientists and medical professionals from all over the world, is that adjusting the level of fluoride in a public water system is the safest, most inexpensive, and most effective way to prevent dental disease.

For more information, fact sheets, and research study summaries visit www.cdc.gov/fluoridation/index.htm or www.southheartlandhealth.org.

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