

Dental Aid Supports Community Water Fluoridation

The history of fluoridation in preventing tooth decay began right here in Colorado. According to the Colorado Department of Health and Environment website, “In 1908, a Colorado Springs dentist, Dr. Frederick McKay, first discovered fluoridation in the State of Colorado, and its role in preventing tooth decay. He noticed slight brown staining of the teeth in his young patients who grew up in the vicinity of Colorado Springs. Through 20 years of research, Dr. McKay found that the optimal amount of fluoride helps protect the teeth from decay, without causing objectionable cosmetic staining. In 1945, the first national trials began to adjust the water fluoride level to the optimal level in community water supplies of 1 part per million... Currently, about 75 % of Colorado residents on public water systems drink water that is optimal in fluoride.”

Sixty years ago, Grand Rapids, Michigan, was the first community to adjust the level of fluoride in the community water supply to reach the level most effective in preventing tooth decay. According to the American Dental Association, “170 million Americans now have access to community water fluoridation.”

Dentists and staff at Dental Aid believe that community water fluoridation and topical fluorides contribute greatly to oral health in the areas we serve. According to Dr. Darby Hammond, Dental Aid’s Chief Pediatric Dental Advisor, fluoridation has a profound impact on the oral health status of children seeking care at Dental Aid. “We often see children in our pediatric clinic whose parents have chosen to avoid fluoridated tap water and who do not use fluoridated toothpaste. There is a significant increase in the number and severity of cavities found in these children. A short time ago, we referred a child whose family did not utilize fluoridation for treatment at The Children’s Hospital. The girl had severe cavities in all of her upper teeth and in eight of her lower teeth. She was in pain and needed to be treated at the hospital in order to have significant amounts of decay treated under general anesthesia. We hate to see children suffer unnecessarily when it is easy to prevent severe decay with the use of fluoride and good dental hygiene,” says Dr. Hammond.

The American Dental Association lists the following key facts regarding water fluoridation:

- Water fluoridation is the addition of fluoride to adjust the natural concentration of fluoride in a community’s water supply to the level recommended by the U.S. Public Health Service for optimal dental health—0.7 to 1.2 parts per million (the equivalent of about 1 inch in 16 miles or \$.01 in \$10,000).
- Dental caries, commonly known as tooth decay or cavities, is an infectious multifactorial disease in which acid from bacteria dissolve the enamel of a tooth. This often results in pain and loss of tooth structure. Fluoride works by facilitating remineralization of the tooth’s enamel, keeping the tooth strong by preventing the loss of minerals from the enamel as well as by enhancing the re-uptake of minerals into the tooth.

- Fluoridation of the public water supply was first instituted on January 25, 1945, in Grand Rapids, Michigan. Studies in eight communities (four implemented fluoridation and four did not) comparing rates of tooth decay documented persuasive evidence of its effectiveness in decreasing tooth decay in children. As a result, other U.S. cities rapidly adopted this preventive intervention.
- A recent review by the U.S. Task Force on Community Preventive Services strongly recommended community water fluoridation for reducing tooth decay. For the many studies reviewed, there was a median 29% reduction in tooth decay among children and adolescents.
- Community water fluoridation benefits everyone, especially those without access to regular dental care. It is the most efficient way to prevent one of the most common childhood diseases—tooth decay (5 times as common as asthma and 7 times as common as hay fever in 5- to 17-year-olds). Without fluoridation, there would likely be many more than the estimated 51 million school hours lost per year in this country because of dental-related illness.
- Currently, 67% of Americans on public water systems receive optimally fluoridated water.

Recently, the public has been offered a great deal of misinformation regarding the dangers of fluoridation. Since 1950, continued scientific evidence has shown that fluoride in the correct concentration is one of the most beneficial means of lowering the incidence of tooth decay in our communities. In the interest of good public health, community water fluoridation needs to be recognized as a major component in good oral health.