



Water Fluoridation

Full Summary

Description:

Water fluoridation is the adjustment of natural fluoride concentration of fluoride i.e., to adjust fluoride-deficient water to the level recommended for optimal dental health. The effectiveness of adjusting the fluoride levels of public drinking water systems has been documented in the scientific literature for well over 55 years. In the early 40s epidemiologic studies were conducted by H. Trendley Dean, Francis Arnold, John Knutson and others to test the hypothesis that the addition of fluorides to water would decrease dental caries¹.

The first community fluoridation program in the U.S. began in 1945 in Grand Rapids, Michigan, and resulted in 50-60% lower tooth decay rates in children consuming optimally adjusted fluoridated water compared to children consuming fluoride-deficient water. Since that time, many studies on safety and efficacy have been published, making fluoridation of public drinking water one of the most widely studied public health measures in history. Studies continue to show that water fluoridation is effective in reducing tooth decay in children 14%, even with widespread availability of fluoride from other sources¹⁻⁴. However, the impact of water fluoride has diminished in communities with regular exposure to other fluoride sources but is still effective in low income and vulnerable populations⁵.

In a review on safety and efficacy 59 publications were included 3 systemic reviews and 3 guidelines⁶. The review concluded that except for fluorosis water fluoridation is not associated with any other adverse side effects.



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