



Dietary Supplements

Case Study

Case Study: United States

In the U.S., fluoride supplements are available by prescription and the Centers for Disease Control recommends the use of supplements for children who live in non-fluoridated communities between the ages of 6 months and 16 years.¹ The amount prescribed is based on age and level of fluoride in the local drinking water.² The dosage also depends on a complete fluoride history with information on fluorides from all sources and the expected level of benefit from dental caries that dietary supplements can provide.

The available strengths for tablets and lozenges are 1.0, 0.5, and 0.25 mg of fluoride. In a systematic review of 20 reports on fluoride supplements, the benefit of caries-reduction was 43%, the withdrawal rates was around 30%, and mild to moderate fluorosis was reported.³ While studies have reported a decrease in dental caries with the use of fluoride supplements among many children the caries prevention is not very high.⁴ This may be due to widespread availability of fluoride (toothpaste, water), thus diluting the effect of fluoride supplements. Studies on the effectiveness of fluoride supplements in children <6 years are reported to have study design issues such as self-selection into study, lack of control groups, high attrition rates and non-blinded examiners.⁵

The use of fluoride supplements in young children has been a controversial discussion in the U.S.⁶ This is because the evidence for fluoride supplements when used from birth or soon after is weak, supplements are a risk for dental fluorosis, and fluoride has little effect in the pre-eruptive phase of tooth development. Also findings from studies so far suggest that some children can exceed the “optimal” level of fluoride intake from a single source alone, while other children can exceed from a combination of sources.⁷ Based on the evidence on safety and effectiveness researchers believe that the ADA’s current dosage schedule is too high and that it requires modification.⁸



Alliance for a Cavity-Free Future

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An Oral Health Resource

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