Research has shown that fluoride reduces dental caries (tooth decay) by making the tooth structure stronger and repairing the early stages of caries by promoting mineral replacement.

**Fluoridation of community water: a safe and effective way**

The Centers for Disease Control and Prevention cited community water fluoridation as one of 10 great public health achievements of the 20th century. The American Dental Association (ADA) continues to endorse fluoridation of community water supplies as a safe and effective method of preventing tooth decay and works with federal, state, and local agencies to increase the number of communities benefiting from water fluoridation.

The Food and Drug Administration’s Center for Food Safety and Applied Nutrition also announced that manufacturers now have permission to print claims on their labels that drinking fluoridated water may reduce the risk of dental caries or tooth decay.

**Infants need lesser amounts of fluoride**

Fluoride, like any other nutrient, is safe and effective when properly used. Excess exposure to greater than optimal levels of fluoride, especially during infancy, can lead to dental fluorosis or mottling of teeth—a disruption in tooth enamel formation.

The optimal fluoride level in drinking water is 0.7–1.2 parts per million. Fluoride levels in drinking water can vary widely within a county, either naturally from different water sources, or if part of the county is fluoridated and part is not. Besides community water fluoridation, children may get exposed to fluoride from a variety of sources such as commercially available infant food, fruit juices, toothpaste and fluoride supplements.

**How to reduce the risk of fluorosis?**

A recent ADA interim guideline on fluoride intake for infants and young children will help parents, child care providers and health care professionals to make informed choices and have some simple and effective ways to reduce risk of fluorosis for those infants who consume infant formula.

**Tips for reducing fluoride intake from infant formula**

**Breast milk.** Feeding infants with breast milk is widely acknowledged to be the most complete form of nutrition. With few exceptions, breastfeeding is recommended for all infants.

**Ready-to-feed formula.** For infants who get most of their nutrition from formula during the first 12 months, choosing ready-to-feed formula over formula mixed with fluoride water will provide limited fluoride intake.

**Mixing formula with fluoride free water.** If infant formula is the main source of nutrition, it can be mixed with water that is fluoride free or contains low levels of fluoride.

**Fluoride toothpaste.** Parents and caregivers should ensure that young children use an appropriate size toothbrush with only a pea-sized dab of fluoride toothpaste.

**Adult’s help.** Young children need to be helped and supervised while brushing and trained to spit out the toothpaste.

**Fluoride mouthrinse** is not recommended for children under 6 years of age, unless suggested by a dental or health care professional.

**Dietary fluoride supplements.** Children should only receive dietary supplemental fluoride tablets or drops as prescribed by their health or dental care provider. Supplements are not recommended for children under 6 months of age.

**by A. Rahman Zamani, MD, MPH**

**References and Resources**

American Dental Association at www.ada.org.

California department of Health services, Chronic Diseases Control Branch, Community Water Fluoridation Program at www.dhs.ca.gov/cdic/cdcb/Medicine/OralHealth/Fluoride/index.htm.