

## Infants, formula and fluoride

**T**he U.S. Food and Drug Administration (FDA) in October 2006 announced that it will allow bottlers to claim that fluoridated water may reduce the risk of caries (tooth decay). The American Dental Association (ADA) agrees with the FDA that this health claim is not intended for use on bottled water marketed to infants, for whom lesser amounts of fluoride are appropriate. The right amount of fluoride is needed to help protect teeth and prevent caries. Fluoride intake above optimal amounts, however, creates a risk of developing enamel fluorosis in teeth during their development before they erupt through the gingivae (gums). Most cases of enamel fluorosis result in faint white lines or streaks on tooth enamel that are not readily apparent to the affected person or the casual observer.

### OPTIMAL FLUORIDE LEVEL

The optimal fluoride level in drinking water is 0.7 to 1.2 parts per million, an amount that has been proven beneficial in reducing caries. In some areas, naturally occurring fluoride may be above or below these levels. The U.S. Environmental Protection Agency requires notification by the water supplier if the fluoride level exceeds 2 ppm. People living in areas where naturally occurring fluoride levels in drinking water exceed 2 ppm should consider an alternative water source or home water treatments to reduce the risk of fluorosis in young children.

### RECONSTITUTED INFANT FORMULA

The ADA offers these recommendations to reduce fluoride intake from reconstituted infant formula.

- Breast milk is widely acknowledged as the most complete form of nutrition for infants. The American Academy of Pediatrics recommends human milk for all infants (except for the few for whom breast-feeding is determined to be harmful).
- For infants who get most of their nutrition from formula during their first 12 months, ready-to-feed formula is preferred to help ensure that their fluoride intake does not exceed the optimal amount.

- If liquid concentrate or powdered infant formula is the primary source of nutrition, it can be mixed with water that is fluoride-free or contains low levels of fluoride to reduce the risk of fluorosis. These include water labeled as purified, demineralized, deionized or distilled, as well as reverse-osmosis filtered water. Many stores sell these types of drinking water for less than \$1 per gallon.

Parents and caregivers should consult with their dentist, pediatrician or family physician regarding the most appropriate water to use in their area to reconstitute infant formula. Ask your pediatrician or family physician whether water used in infant formula should be sterilized first (sterilization, however, will not remove fluoride).

Unless advised to do so by a dentist or other health care professional, parents should not use fluoride toothpaste in children younger than 2 years, because they may inadvertently swallow the toothpaste.

Children 2 years and older should use an appropriate-sized toothbrush with a small brushing surface and only a pea-sized amount of fluoride toothpaste at each brushing. They should always be supervised while brushing and taught to spit out, rather than swallow, toothpaste.

Fluoride mouthrinses have been shown to help prevent caries in both children and adults. Unless the child's dentist advises otherwise, the ADA does not recommend the use of fluoride mouthrinses in children younger than 6 years, because they may be more likely to inadvertently swallow the mouthrinse.

Fluoride supplements are not recommended for children younger than 6 months. Children should receive only dietary supplemental fluoride tablets or drops as prescribed by their dentist or physician based on the supplement schedule approved by the ADA, the American Academy of Pediatrics and the American Academy of Pediatric Dentistry (visit "[www.ada.org](http://www.ada.org)"). ■

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