Overview: Infant Formula and Fluorosis

The proper amount of fluoride from infancy through old age helps prevent and control tooth decay. Community water fluoridation is a widely accepted practice for preventing and controlling tooth decay by adding fluoride to the public water supply.

Fluoride intake from water and other fluoride sources, such as toothpaste and mouth rinse, during the ages when teeth are forming (from birth through age 8) can lead to changes in the appearance of the tooth's surface called dental fluorosis. In the United States, most dental fluorosis is mild and appears as white spots that are barely noticeable and hard for anyone but a dentist or hygienist to see.

Because most infant formulas contain low levels of fluoride, regularly mixing powdered or liquid infant formula concentrate with fluoridated water may increase the chance of a child developing the faint white markings of mild fluorosis.

You can use fluoridated water to prepare infant formula. However, if your baby is does not eat or drink anything but infant formula that is mixed with fluoridated water, there may be an increased chance for mild dental fluorosis. To lessen this chance, you can use low-fluoride bottled water some of the time to mix with infant formula; these bottled waters are labeled as de-ionized, purified, demineralized, or distilled. If they have added fluoride, the label will say so.

What is the best source of nutrition for infants?

Breastfeeding is ideal for infants. Breast milk is easy to digest and contains antibodies that can protect infants from bacterial and viral infections. Learn more about the benefits of breastfeeding (http://www.cdc.gov/breastfeeding).

If breastfeeding is not possible, formula can be used. Parents should speak with their pediatrician about what type of infant formula is best for their child.

What types of infant formula may increase the chance of dental fluorosis?

Three types of infant formula are available in the United States: powdered formula, which comes in bulk or single-serve packets, concentrated liquid, and ready-to-feed formula. Ready-to-feed formula contains little fluoride and does not cause dental fluorosis. The kinds of formula that must be mixed with water—powdered or liquid concentrates—may increase the chance of dental fluorosis if they are the child's main source food and if the water is fluoridated.

Can I use fluoridated tap water to mix infant formula?

Yes, you can use fluoridated water for preparing infant formula. However, if your child is only consuming infant formula mixed with fluoridated water, there may be an increased chance for mild dental fluorosis. To lessen this chance, parents can use low-fluoride bottled water some of the time to mix infant formula; these bottled waters are

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CDC - Infant Formula and Fluorosis - Safety - Community Water https://www.cdc.gov/fluoridation/safety/infant_formula.htm labeled as de-ionized, purified, demineralized, or distilled, and without any fluoride added after purification treatment. The U.S. Food and Drug Administration (FDA) requires the label to indicate when fluoride is added.

How can I find out the level (concentration) of fluoride in my tap water?

The best source of information on fluoride levels in your water system is your local water utility. Other knowledgeable sources may be a local public health department, dentist, dental hygienist, or physician. CDC's website, My Water's Fluoride (https://nccd.cdc.gov/DOH_MWF/Default/Default.aspx), allows residents of participating states to find the amount of fluoride in their local water system.

Will using only low-fluoride water to mix formula eliminate my child's risk for dental fluorosis?

Using only water with low fluoride levels to mix formula will lower the risk for dental fluorosis but not eliminate it. Children can take in fluoride from other sources during the time that teeth are developing (birth through age 8). These sources include drinking water, foods and beverages processed with fluoridated water, and dental products, such as fluoride toothpaste, that can be swallowed by young children while brushing their teeth.

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Page last reviewed: April 20, 2015 Page last updated: July 31, 2015

Content source: Division of Oral Health (/oralhealth), National Center for Chronic Disease Prevention and Health

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