

Fluoride and Fluorosis in Children: understanding new guidelines

Fluoride throughout life helps prevent and control tooth decay. This has been confirmed in many studies, over many years. However, there is always the possibility that there can be too much of a good thing. The federal Centers for Disease Control, the CDC, recently issued new recommendations on how to reduce possible risk from too much fluoride. Here we'll review the issue, the new recommendations, and suggest next steps for parents.

First – health in the mouth is essential, even for babies. The new recommendations are for parents of young children, the concerns are about something called “enamel fluorosis.”

What is enamel fluorosis?

Too much fluoride can result in defects in tooth enamel. In mild cases of fluorosis, the tiny white specks or streaks are often unnoticeable. In severe cases of enamel fluorosis, teeth can be discolored. Fluorosis is a cosmetic concern, not a health concern.

Who do the new guidelines apply to?

There are new recommendations around fluoride and avoiding fluorosis for infants on formula, and for children between infancy and age eight. Usually by the time children are eight years old, their adult teeth have formed under the gums, and they are no longer at risk for fluorosis.

Guidelines for infants on formula. Mixing powdered or liquid infant formula with fluoridated water, on a regular basis, may increase the chance of mild fluorosis. This means faint white markings on the teeth. This is a cosmetic issue, not a health issue.

The occasional use of fluoridated water to mix formula is not a problem. But for infants for whom formula is their primary food source, caregivers may want to consider using non-fluoridated water to mix the formula.

What water should I use to mix formula if I don't use tap water?

Any bottled water that is labeled as “distilled” “purified”, “deionized”, “demineralized”, or “prepared by reverse osmosis” is very low in fluoride and may be used to mix with formula. Most bottled water is low in fluoride, but because there is no requirement for fluoride labeling on bottled water the only way to know for sure what the fluoride level for a particular brand is to check with the manufacturer.

What's best for my baby?

Bottom line, breastfeeding is always best. Breast milk has antibodies that can protect against viral and bacterial infections. But if your baby gets most nourishment from concentrated formula, you may want to consider using non-fluoridated water for mixing. This will reduce the chance of your child developing fluorosis.

For children up to age eight.

- For children under two, ask your health care provider if you should use fluoride toothpaste. Many stores now carry children's toothpastes without fluoride.
- Supervise tooth brushing by children under age eight to minimize swallowing and encourage spitting out toothpaste and rinsing after brushing.
- Use no more than a pea sized amount of fluoridated toothpaste; even a light "smear" can be enough for younger children.

How do I know how much fluoride is in my tap water?

If you get water from your town or city, call your local water district and ask if your water is fluoridated. Community water fluoridation is a safe and effective way of helping to prevent dental disease for children and adults. This benefit is supported by over fifty years of research. If your public water supply is not fluoridated you should ask your health care provider how to get the right amount of fluoride for you and your family.

If you get your water from a well or spring instead of your town, you can get your water tested for fluoride (and other things) by contacting the Maine State Health and Environmental Lab at 287-2727. The test for fluoride costs \$14 but you may be eligible for a fee waiver. A fluoride level between 0.7 and 1.2 parts per million (ppm) is good. If your private water supply doesn't have enough fluoride, you should ask your health care provider how to get the right amount of fluoride for you and your family. Your health provider can take into account other sources of fluoride from toothpaste, mouthwashes and dietary supplements in making recommendations for fluoride supplements. If you find that your water supply has more than 1.7 ppm you should ask your primary care provider or your dentist for advice.

Resources. This article was taken from CDC and The American Academy of Pediatric Dentistry websites. The full articles can be found at the links below.

http://www.cdc.gov/fluoridation/safety/infant_formula.htm

http://www.cdc.gov/fluoridation/safety/reducing_risk.htm#

<http://www.aapd.org/publications/brochures/fluorosis.asp>