

Fluoride

What is fluoride?

Fluoride is a naturally occurring element that is added to drinking water and dental products to help reduce tooth decay. Fluoride reacts chemically with the surface of your teeth to strengthen their defenses against the damaging effects of acids produced by bacteria in your mouth.

Fact: Frequent exposure to fluoride in small amounts has the greatest benefit to your teeth.

What are the primary sources of fluoride?

Fluoridated drinking water and daily use of fluoridated toothpaste are the primary sources. Your dentist may need to apply fluoride gels or concentrate to your children's teeth, if they are at high risk for tooth decay. A dentist may also recommend using a fluoride mouthrinse or fluoride supplement tablets for high-risk patients. (See the *Sources of fluoride* fact sheet for more information about various ways to increase your exposure to fluoride.)

How do I know if I'm getting the right amount of fluoride?

The amount of fluoride you and your children need is based on your risk for developing tooth decay. The more risk factors you have, the more likely you will need fluoride for preventing or stopping tooth decay. State regulations require that the community water supply contain the optimal level of fluoride. Toothpaste that carries the American Dental Association (ADA) seal of approval also contains fluoride. Certain types of home water filtration systems can actually remove fluoride from the water. And most bottled water does not contain necessary levels of fluoride. Your dentist can help you assess whether you are receiving appropriate amounts of fluoride. If you're not, he or she can recommend ways of increasing your exposure. If you have any questions about your specific needs, please talk to your dentist.

Can you get too much fluoride? If so, what happens?

Yes. Young children can ingest too much fluoride if they swallow toothpaste while brushing. It is very important that you pay attention to the amount of toothpaste on your child's toothbrush. If a child continues to swallow a lot of toothpaste over time, a condition known as "dental fluorosis" may occur. Older children and adults are not at risk for dental fluorosis since tooth enamel has formed completely on their permanent teeth.

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Fact: Dental fluorosis is a change in the appearance of teeth and is caused when high amounts of fluoride are swallowed in early childhood while tooth enamel is forming. In mild cases, it looks like white specks on the enamel of teeth. Mild fluorosis is considered a cosmetic issue rather than long-term health issue. In severe cases, fluorosis is a permanent brown staining of the teeth and irregularities are seen in the enamel.

At what age should my child begin using toothpaste with fluoride?

For toddlers at low risk for developing tooth decay, use a wet toothbrush without toothpaste. For toddlers at high risk for developing tooth decay, a dab of toothpaste can be used while brushing their teeth. Children ages 3 to 6 who can rinse and spit, use a pea-sized amount of toothpaste.

Fact: Squeeze the toothpaste onto the toothbrush for your child until she is 6 years old. Also, supervise your child's brushing until she can demonstrate the dexterity to brush her own teeth — usually around age 7. Your dentist and staff can assist you in determining your child's ability to brush correctly.

Can the outer layer of enamel be removed from teeth?

Yes. Very abrasive toothpaste (e.g., smoker's toothpaste) or the pumice paste used during a dental cleaning can remove this fluoride-rich outer layer. This is more of a problem with children since newly erupted permanent teeth are more vulnerable to tooth decay.

Fact: An option is to have your child's teeth cleaned with toothpaste (which is less abrasive) rather than pumice paste.

Does my child need fluoride applied at each dental checkup?

No, not if your child is at low risk for developing tooth decay. However, if your child is at high risk for developing tooth decay, he would benefit from additional sources of fluoride. Fluoride applied in the dental office is one option. There are several other options that your dentist may find more appropriate for your child.

Fact: Today there are far more exposures to fluoride than when it was first introduced into the drinking water supply and into toothpaste. So if your child is at low risk, there is little benefit from more exposure to fluoride.