

Oral Health Tips

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Facts of Fluoride

Widespread use of fluoride has been a major factor in reducing tooth decay, making it less common and less severe in the U.S. over the past three decades. Fluoride works to reduce tooth decay and prevent cavities by having small amounts maintained constantly in the mouth.

Q: What is fluoride, where is it found?

Fluoride is a naturally occurring element in the environment. In the U.S., the most common sources are fluoridated community drinking water and fluoride toothpaste. The success of water fluoridation in preventing and controlling dental caries led to the development of fluoride-containing products, including toothpaste, mouth rinse, dietary supplements, and professionally applied or prescribed gel, foam or varnish. In addition, processed beverages and foods, which constitute an increasing proportion of the diets of many U.S. residents, can contain small amounts of fluoride, especially if they are processed with fluoridated water.

Q: How does fluoride work?

Fluoride works in three ways: 1) It inhibits the loss of healthy minerals found in tooth enamel. 2) It can also repair minor tooth decay by remineralizing areas of the tooth enamel that plaque has attacked. 3) In addition, fluoride reduces the ability of oral bacteria to produce acid.

Q: Is fluoride just for kids?

No, both adults and children can benefit from fluoride. In fact, people over the age of 50 also benefit from fluoride because of the increased risks for tooth decay due to gum recession and medications that reduce their saliva and cause dry mouth.

Q: What amount of fluoride is needed to reduce tooth decay

Most people are at low risk of tooth decay through frequent exposure to fluoride by drinking fluoridated water and using fluoride toothpaste.

Q: Is all public drinking water fluoridated?

No, not all public water supplies have adequate fluoride. To determine the fluoride content of tap water, contact the local water supplier, local public health office or a local dentist. Private well water needs to be tested for fluoride. For bottled water, contact the bottler. Most bottled water does not contain adequate fluoride.

Q: Does fluoride toothpaste help reduce tooth decay?

Fluoride is the only nonprescription toothpaste additive proven to prevent dental caries. When introduced into the mouth, fluoride in toothpaste is taken up directly by dental plaque and demineralized enamel. By the 1990s, fluoride toothpaste accounted for more than 90% of the toothpaste market in the United States.

Q: What about using fluoride toothpaste on children?

With regard to fluoride toothpaste, parents and caregivers of children should follow the directions on the

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label of a fluoride toothpaste with the American Dental Association Seal of Acceptance. Parents and caregivers should consult a dentist or other health-care provider before introducing a child under the age of two to fluoride toothpaste. For children under the age of six who use fluoride toothpaste, place no more than a pea-sized amount of toothpaste on the toothbrush, brush the child's teeth (recommended particularly for preschool-aged children) or supervise the toothbrushing, and encourage the child to spit excess toothpaste into the sink to minimize the amount swallowed. Indiscriminate use can result in inadvertent swallowing of more fluoride than is recommended.

Q: Who is still at risk of tooth decay?

Today, tooth decay is a disease concentrated among certain groups and individuals with high-risk factors. For example, among children 5 to 17 years old, 80% of permanent tooth cavities occur among 25% of those children.

Q: Who needs fluoride treatment from a dentist?

Children and adults who are at high risk for tooth decay might benefit. For people at low risk for tooth decay, especially those who drink fluoridated water and brush daily with fluoride toothpaste, professionally applied fluoride likely provides little benefit.

Risk factors

Individuals who may be at increased risk for tooth decay include:

- Have active tooth decay
- Have a high level of infection with decay causing bacteria
- Wear braces or other tooth appliances, space maintainers or dental prostheses
- Have older siblings or caregivers with a history of a high amount of tooth decay
- Have gum recession to the point the tooth roots are exposed

- Are not physically or mentally able to care for their teeth
- Have malformed tooth enamel or dentin
- Produce less saliva due to medication, radiation treatment or disease

Risk can increase if any of these factors are combined with dieting practices that can promote tooth decay (such as frequent consumption of sugary foods and drinks and other refined carbohydrates).

Source: Centers for Disease Control and Prevention: www.cdc.gov