The Truth About Tooth Decay (Part 2)

The case for prevention is strong

Since tooth decay (also known as dental caries) is preventable, educating parents and children about the importance of oral health and the prevention of oral diseases is the key to creating a lifetime of healthy smiles. Taking a role in preventing tooth decay, rather than treatment after the fact, not only makes sense from a health standpoint, it is also much more cost effective. Attitudes and habits established at an early age can last a lifetime.

Fluoride helps prevent tooth decay
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.

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

Sealants can prevent tooth decay
If children are going to develop tooth decay, the most likely place for it to occur is in the natural grooves on the tops of the posterior (back) teeth. Dental sealants are thin, plastic coverings that seal these grooves so that bacteria (plaque) cannot get into them. Dental sealants can last for many years but sometimes need minor repairs so that they maintain a complete seal. Not all children need sealants. Ask a dentist if your child is at risk for tooth decay and if it would be beneficial to have dental sealants placed on those teeth that need them.

(continued on next page)
Sealants are most often recommended for children who have newly erupted permanent teeth. Because sealants act as a physical barrier to decay-causing bacteria, sealants that are maintained properly are nearly 100% effective in protecting teeth from cavities in pits and fissures. First and second permanent molars erupt into a child’s mouth at about six and twelve years of age. If necessary, having sealants applied to these teeth shortly after they erupt protects them from developing cavities in areas that are difficult to clean.

Adults who have existing dental decay susceptible pits and grooves in the biting surfaces of back teeth may benefit from sealants. Individuals who experience frequent dry mouth may also benefit from the extra protection of sealants since their teeth are often deprived of the protective benefits of saliva, which may make them especially vulnerable to cavities.

**Chewing gum can prevent cavities**
Chewing sugar-free xylitol gum suppresses decay causing bacteria and stimulates saliva flow, minimizing the risk of tooth decay. This natural sweetener, now being added to some chewing gum and mints, may help to reduce and prevent cavities. Experts recommend using xylitol directly after meals and snacks to help reduce plaque on teeth, inhibit bacteria and reduce the contact time of sugar on teeth.

**Additional tips to prevent tooth decay**
- Avoid behaviors that can transfer saliva from adult to children
- Take your child to see the dentist around their first birthday
- Eat a nutritious and healthy diet and limit snacks
- Brush teeth twice a day with 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 two years old to fluoride toothpaste.)
- Floss teeth daily
- Drink fluoridated water after meals to help cleanse the teeth
- Visit your dentist regularly

Protecting teeth from decay is not only important, it is also preventable. Besides making good health sense, preventive care also makes financial sense. Since tooth decay is a preventable childhood disease, preventing tooth decay is easier, less expensive and less painful than treating a tooth that is already decayed. By establishing healthy dental habits early, parents can influence the health of their children’s teeth for a lifetime.

Sources:
American Dental Association: www.ada.org
Centers for Disease Control: www.cdc.org
Caries diagnosis and risk assessment. JADA (Spec Iss) 1995;126:S-24S.