

Fact Sheet

Academy of General Dentistry

Tooth Decay: a preventable disease

What is tooth decay, and what causes it?

Tooth decay is the disease known as caries or cavities. Unlike other diseases, however, caries is not life threatening and is highly preventable, though it affects most people to some degree during their lifetime.

Tooth decay occurs when your teeth are frequently exposed to foods containing carbohydrates (starches and sugars) like soda pop, candy, ice cream, milk, cakes, and even fruits, vegetables and juices. Natural bacteria live in your mouth and form plaque. The plaque interacts with deposits left on your teeth from sugary and starchy foods to produce acids. These acids damage tooth enamel over time by dissolving, or demineralizing, the mineral structure of teeth, producing tooth decay and weakening the teeth.

How are cavities prevented?

The acids formed by plaque can be counteracted by simple saliva in your mouth, which acts as a buffer and remineralizing agent. Dentists often recommend chewing sugarless gum to stimulate your flow of saliva. However, though it is the body's natural defense against cavities, saliva alone is not sufficient to combat tooth decay.

The best way to prevent caries is to brush and floss regularly. To rebuild the early damage caused by plaque bacteria, we use fluoride, a natural substance which helps to remineralize the tooth structure. Fluoride is added to toothpaste to fight cavities and clean teeth. The most common source of fluoride is in the water we drink. Fluoride is

added to most community water supplies and to many bottled and canned beverages.

If you are at medium to high risk for cavities, your dentist may recommend special high concentration fluoride gels, mouth rinses, or dietary fluoride supplements. Your dentist may also use professional strength anti-cavity varnish, or sealants—thin, plastic coatings that provide an extra barrier against food and debris.

Who is at risk for cavities?

Because we all carry bacteria in our mouths, everyone is at risk for cavities. Those with a diet high in carbohydrates and sugary foods and those who live in communities without fluoridated water are likely candidates for cavities. And because the area around a restored portion of a tooth is a good breeding ground for bacteria, those with a lot of fillings have a higher chance of developing tooth decay.

Children and senior citizens are the two groups at highest risk for cavities.

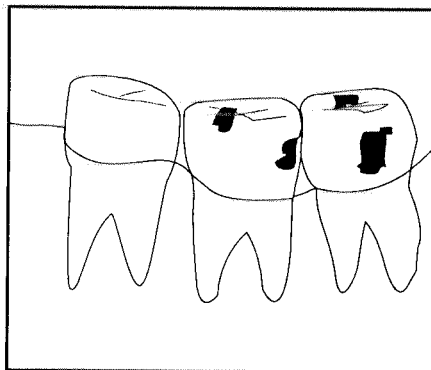
What can I do to help protect my teeth?

The best way to combat cavities is to follow three simple steps:

1. Cut down on sweets and between-meal snacks. Remember, it's these sugary and starchy treats that put your teeth at extra risk.

2. Brush after every meal and floss daily. Cavities most often begin in hard-to-clean areas between teeth and in the fissures and pits—the edges in the tooth crown and gaps between teeth. Hold the toothbrush at a 45-degree angle and brush inside, outside and between your teeth and on the top of your tongue. Be sure the bristles are firm, not bent, and replace the toothbrush after a few weeks to safeguard against reinfesting your mouth with old bacteria than can collect on the brush. Only buy toothpastes and rinses that contain fluoride (antiseptic rinses also help remove plaque) and that bear the American Dental Association seal of acceptance logo on the package. Children under six should only use a small pea-sized dab of toothpaste on the brush and should spit out as much as possible because a child's developing teeth are sensitive to higher fluoride levels. Finally, because caries is a transmittable disease, toothbrushes should never be shared, especially with your children.

3. See your dentist at least every six months for checkups and professional cleanings. Because cavities can be difficult to detect a thorough dental examination is very important. If you get a painful toothache, if your



teeth are very sensitive to hot or cold foods, or if you notice signs of decay like white spots, tooth discolorations or cavities, make an appointment right away. The longer you wait to treat infected teeth the more intensive and lengthy the treatment will be. Left neglected, cavities can lead to root canal infection, permanent deterioration of decayed tooth substance and even loss of the tooth itself.

Sources: *The medical management of dental caries*, by Burton L. Edelstein, DDS, *Journal of the American Dental Association*, Jan. 1994; *How severe is the threat of caries to old teeth?* By M.I. MacEntee, et al., *Journal of Prosthetic Dentistry*, May 1994; *Tooth decay*, *American Dental Association*, 1994; *Modern management of dental caries: the cutting edge is not the dental bur*, by Maxwell H. Anderson, DDS, et al., *JADA*, June 1993; *Changing paradigms in caries management*, by Maxwell H. Anderson, DDS, *Periodontology and Restorative Dentistry*, March 1992; *Preventing dental caries: breaking the chain of transmission*, by Ernest Newbrun, DMD, *JADA*, June 1992; *Prevention of dental caries*, by Andrew J. Rugg-Gunn, *Dental Update*, Jan/Feb 1990; *Preventive dentistry: dental caries*, by John C. Greene, DMD, et al., *Journal of the American Dental Association*, Dec. 22/29, 1989.



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