

ToothMasters

Information on Tooth Decay

Definition: Tooth decay is the destruction of the enamel (outer surface) of a tooth. Tooth decay is also known as dental cavities or dental caries. Decay is caused by bacteria that collect on tooth enamel. The bacteria live in a sticky, white film called plaque (pronounced PLAK). Bacteria obtain their food from sugar and starch in a person's diet. When they eat those foods, the bacteria create an acid that attacks tooth enamel and causes decay.

Tooth decay is the second most common health problem after the common cold (see common cold entry). By some estimates, more than 90 percent of people in the United States have at least one cavity; about 75 percent of people get their first cavity by the age of five.

Description: Anyone can get tooth decay. However, children and the elderly are the two groups at highest risk. Other high-risk groups include people who eat a lot of starch and sugary foods; people who live in areas without fluoridated water (water with fluoride added to it); and people who already have other tooth problems.

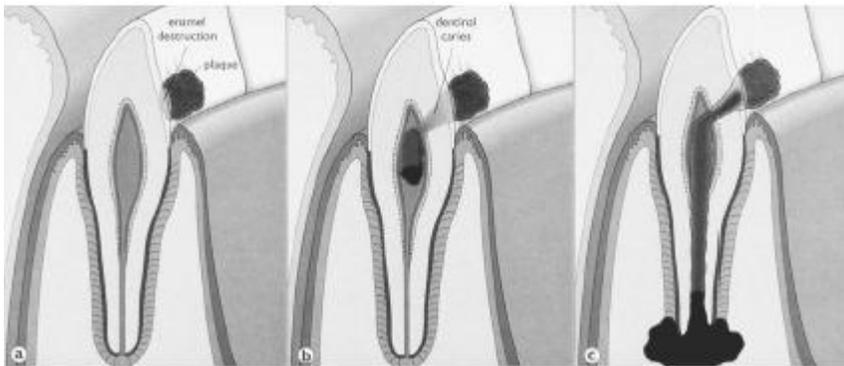
Tooth decay is also often a problem in young babies. If a baby is given a bottle containing a sweet liquid before going to bed, or if parents soak the baby's pacifier in sugar, honey, or another sweet substance, bacteria may grow on the baby's teeth and cause tooth decay.

Causes: Tooth decay occurs when three factors are present: bacteria, sugar, and a weak tooth surface.

The sugar often comes from sweet foods such as sugar or honey. But it can also come from starchy foods such as bread and rice. When a starch breaks down in the mouth, it forms sugar. Bacteria that live on the surface of a tooth eat sugar. When they do so they change the sugar into an acid called lactic acid.

Healthy tooth enamel may be able to resist this acid. But tooth enamel often has tiny holes and weak spots. Lactic acid can soak into these holes and dissolve the minerals of which enamel is made. Over time, the hole may get larger and larger. If the hole penetrates into the next tooth layer, called the dentin, the tooth becomes sensitive to touch and temperature. Decay can even penetrate to the center of the tooth, the pulp. In that case, the inner tooth may become inflamed and begin to ache.

Treatment: Tooth decay is usually treated with a filling. The dentist first removes all of the decayed material with a drill. The opening is then filled with some



The development of dental cavities in three stages. (Reproduced by permission of Biophoto Associates/Science Source/Photo Researchers, Inc.

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long-lasting material. Two common materials are mercury amalgam (pronounced uh-MAL-gum) and composite resin. A mercury amalgam consists of a mixture of metals that is strong and resistant to wear. A composite resin is a sturdy, plastic-like material.

Additional treatment may be necessary if decay has reached the pulp of the tooth. In that case, the center part of the tooth may also have to be removed. This procedure is called a root canal. The decayed material is taken out and replaced with a metal pin. The tooth is then covered with an artificial coating called a crown.

For more information: Organizations

American Dental Association. 211 East Chicago Avenue, Chicago, IL 60611. (312) 440-2500. <http://www.ada.org>.

American Dental Hygienists' Association. 444 North Michigan Avenue, Chicago, IL 60611. (800) 847-6718.

National Institute of Dental Research. 31 Center Drive, MSC 2190, Building 31, Room 5B49, Bethesda, MD 20892-2190.

Read more: <http://www.faqs.org/health/Sick-V4/Tooth-Decay-For-more-information.html#ixzzONLMuXK5u>

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