

# Ask a Pankey Dentist



## What are some dietary things I can do to improve my oral health?

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**W**hat you eat and how often you eat are factors in preventing cavities and gum disease. Bacteria in the mouth convert sugars from the foods you eat to acids. The acids then attack the enamel on teeth, starting the decay process. The more often you eat and snack, the more frequently you are exposing your teeth to the cycle of decay. In addition to fostering demineralization of tooth enamel, toxins produced by the bacteria irritate the gums, create plaque (a biofilm on your teeth), and can lead to infection in the tissue surrounding your teeth.

In general, food and beverages stimulate the flow of saliva, which helps protect the enamel by washing away food particles. Certain foods have a high water content, such as apples, pears, and vegetables. The water in these foods helps dilute the effect of sugar in these foods. Certain foods protect tooth enamel by providing the calcium and phosphorus needed to remineralize teeth. These include chicken, nuts, milk and cheese. Acidic foods such as oranges, lemons, limes, grapefruit and tomatoes should be eaten as part of a larger meal to minimize the effect of the acid on tooth enamel.

Foods that contain large amounts of sugar and can stick to teeth are a poor choice, especially if you cannot clean your teeth right away. For example, candy, cookies, cakes, pies, breads, pretzels, chips, crackers, French fries, bananas, raisins and the other dried fruits that we frequently grab as snacks are a poor choice when we are on the run and not going to floss, brush and rinse immediately.

The best beverage choices include water (especially fluoridated water), milk, and unsweetened tea. Limit the consumption of sugar-containing drinks, including soft drinks, lemonade, and coffee or tea with added sugar. Avoid day-long sipping of sugar-containing drinks that expose your teeth to constant sugar and thus decay-causing acids.

If you are not able to brush your teeth for a while, rinse them well with water and chew sugarless chewing gum that contains Xylitol.

## Here's more information.

**SUGARLESS OR SUGAR-FREE FOOD** sometimes simply means that no sugar was added to the foods during processing. However, this does not mean that the foods do not contain other natural sweeteners, such as honey, molasses, evaporated cane sugar, fructose, barley malt, or rice syrup. These natural sweeteners contain the same number of calories as sugar and can be just as harmful to teeth.

To determine if the sugarless or sugar-free foods you buy contain natural sweeteners, examine the ingredients label. Words that end in '-ose' (like sucrose and fructose) usually indicate the presence of a natural sweetener. On the label, look under sugars or carbohydrates.

**CHEWING SUGARLESS GUM** can be beneficial to your teeth as chewing helps dislodge food that becomes stuck to your teeth and also increases saliva flow to dilute mouth acids. The sugar substitute Xylitol found in some chewing gums neutralizes acid and thus reduces the risk of cavities. When choosing gum, look to see if Xylitol is one of the first few ingredients listed. The closer it is to the top of the ingredient list, the more Xylitol in the gum and thus more likely the gum is to be effective in cavity prevention. If chewing gum results in muscle tension and tenderness, chew only briefly. If you have jaw pain, commonly experience muscle tenderness, or have other signs of TMD, you should talk about your symptoms with your dentist.

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**VITAMIN C** is essential to the formation of collagen which is the most abundant fiber contained in the connective tissues of the human body including bones, blood vessels, gingiva (gums) and skin. Healthy connective tissue serves as a “first line of defense” against bacteria invasion of our bodies.

Sufficient vitamin C is a consideration in oral health because the amounts of visible plaque (a continuously forming thin film of bacteria adhering to tooth surfaces) and decayed tooth surfaces are higher in individuals with low vitamin C .

Research also has identified vitamin C as a stimulant to the immune system, helping to ward off the effects of bacterial infection seen with periodontal (gum) disease. Its importance to our overall health has been demonstrated by its role in collagen formation, the immune system and as an antioxidant.

Because vitamin C is water soluble, it is rapidly eliminated from the body and needs to be replenished every day. Recommended daily allowances for vitamin C are 75mg per day for women, 90mg per day for men and 120mg per day for smokers. Many elderly, alcohol consumers, and athletes require higher doses of vitamin C.

Dentists frequently advise their patients with periodontal disease to take 500mg of chewable Vitamin C twice a day to improve periodontal health. Some authorities feel a time-release capsule is best, while others feel a powdered form is desirable. If a person eats at least five fruits and vegetables each day, then it is possible that upwards of 500mg might be consumed. The following are just a few sources of vitamin C: 4 oz. of red pepper has 220mg of C, 4 oz. of green pepper has 110mg, 8 oz. of orange juice has 125 mg, 1 cup of broccoli has 85mg, 1 cup of grapefruit juice has 85mg, 1 cup of cauliflower has 55mg, and a 5 oz. orange has 70mg.

**GREEN TEA** was the subject of recent research in Japan that was reported in the April 2010 *Journal of Preventive Medicine*. The study found that drinking at least one cup of green tea per day significantly decreased the risk of tooth loss in Japanese adults between 40 and 64 years of age. Green tea contains caffeine. If you are limiting caffeine, a green tea extract is available that is very low in caffeine.

**CALCIUM** is vital for the formation and maintenance of healthy teeth, and inadequate intake throughout life may contribute to disease of the teeth and gums. Even if you begin taking calcium supplements, they may not compensate adequately for calcium-deficiency damage to teeth and surrounding gum tissue. Because natural remineralization is frequently inadequate to maintain strong enamel, your dentist will tell you about treatments that are effective for your circumstances.

**VITAMIN D** is the sunshine vitamin because the body makes it from sunlight. Vitamin D facilitates calcium and phosphorus absorption, so together with calcium, vitamin D protects and maintains the health of your teeth and the bone supporting your teeth. Studies indicate Vitamin D deficiency may result in gum inflammation as well. Good nutritive sources of calcium and vitamin D are sardines, herring, tuna, salmon, fortified milk and cereals, green leafy vegetables (spinach, chard, collard greens), yogurt, low-fat dairy products, liver and cod liver oil.

**FOLIC ACID** has been shown to reduce plaque, as well as gum inflammation and bleeding associated with periodontal disease. Folate mouthwash seems to be an effective topical treatment and may be recommended by your dentist.

**COENZYME Q10 & ZINC** are two nutritional supplements that may be beneficial in the treatment of periodontal disease as they improve tissue repair and healing.

**FLUORIDE:** Fluoridated community drinking water and fluoride toothpaste are the most common sources of fluoride in the United States and are largely responsible for the low risk for dental caries (cavities) for most persons in this country. Persons at high risk for dental caries might require more frequent or more concentrated exposure to fluoride using a prescribed mouth rinse, topical gel or varnish that leaves a temporary layer of material on the enamel surface. The fluoride in this material is released when the pH drops in the mouth in response to acid production and works to remineralize tooth enamel.

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## Your Pankey-trained dentist can advise you best.

Talk to your Pankey Institute-trained dentist about your oral health concerns and diet. An oral evaluation will provide information important to your health and lead to appropriate dietary advice and treatment for you personal circumstances.

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