

Dental Health and Calcium

- Good nutrition is important for good health and can help protect against many diseases now and later in life. However, one important nutrient lacking in the diet of many children and teens is **calcium**. This mineral is found mainly in milk and dairy products. Calcium is a nutrient that helps make bones and teeth strong and healthy. It is used in building bone mass and also helps reduce the risk of bone fracture due to osteoporosis, a condition where bones become fragile and can break easily.
- The visible part of the tooth is called the crown. The outer layer of the crown is called enamel. It is the hardest substance in our bodies and it protects the tooth. Beneath the enamel is the layer called dentin, which is a hard, yellow substance. The center of the tooth is called the pulp, which is soft. Blood vessels and nerves run through the pulp, bringing nutrients to the dentin, keeping the tooth strong and healthy.
- We have millions of bacteria inside our mouths. Every time we eat, the bacteria feast on the food remaining in our mouths. As the bacteria grow and multiply, your teeth are eventually covered with a clear, sticky film called plaque. Plaque is a combination of bits of food, bacteria, and other substances. It forms mainly between the teeth and where the gums and teeth meet. Plaque can even build up on our teeth while we sleep. Plaque continues to build up if you do not clean your teeth regularly. When plaque is left for a few days or more on your teeth, it hardens and becomes tartar, which is more difficult to remove. Tartar can damage your gums.
- After we eat and drink, the bacteria in our mouths feed off of the left-over food particles. Bacteria produce acid as a by-product of this food breakdown. This acid then sticks to the plaque on our teeth. The higher the sugar content of the food and drink, the more acid that forms. The acid slowly eats through the tooth enamel. This is called tooth decay. When the acid eats through the enamel and reaches the softer dentin, the acid works faster making a hole, or cavity in the tooth. Toothaches occur when the acid from the bacteria comes in contact with the dentin. This often indicates a cavity.
- Gum disease is caused by bacteria and plaque growing down between the teeth and the gums, but this usually affects adults more than children.
- The primary method of fighting tooth decay is brushing our teeth. Brushing scrubs away the sticky plaque that builds up on the teeth. Fluoride in toothpaste and water makes the enamel on our teeth stronger, which helps to protect our teeth. Adults and children should brush at least

two times a day, in the morning and evening. Research shows that bacteria usually cannot make enough acid to damage teeth that are brushed at least once every 24 hours.

- The most effective method of tooth brushing is up and down and around in circles. Brush the top teeth downward from the gums and the bottom teeth upward from the gums. All surfaces of the teeth must be brushed, in addition to the gums and the tongue.
- The texture of a food eaten greatly affects the likelihood that bacteria will stick to the enamel. Many foods have adverse effects on dental health, in addition to the obvious sweet foods such as cookies and candies. Starchy foods are broken down by saliva into a sugar called maltose, and bacteria love maltose. Starches actually remain on the tooth longer than sugars, giving bacteria more time to make acid that can cause cavities. Sticky foods such as dried fruits require a good brushing after eating to prevent the sugars from lodging in the plaque on the teeth. Crunchy, non-sticky foods, such as apples are the best for maintaining healthy teeth.
- Flossing once a day to remove food and plaque from between the teeth is recommended. This should be done with the assistance of an adult for younger children.