

## Today's Vocabulary

- **plaque:** a film of mucus and bacteria on the surface of the teeth
- **periodontia:** (the plural of **periodontium**) the bone, connective tissue, and gum supporting a tooth
- **enamel:** the hard, white, outer layer of the tooth.
- **tartar:** a hard yellowish deposit on the teeth; also known as calculus
- **cavities:** (the plural of **cavity**) holes or weak spots in the tooth surface caused by decay; also known as dental caries or tooth decay
- **swarm:** a crowd or large group
- **accumulation:** a collection, build-up, or growth
- **culprit:** the cause or the one responsible
- **frenzy:** a state of great excitement; an outburst

As unpleasant as it may sound, your mouth is a living swarm of bacteria and germs. Although a certain amount of bacteria is normal, excessive accumulations can destroy your teeth and periodontia (the teeth's support system).

The primary culprit is a sticky film called plaque. Plaque is a gelatinous substance that gives oral bacteria protection from the air (which can kill the germs). What's more, plaque pins the bacteria to your teeth, where they feast heartily on the leftover food particles in your mouth. They are especially fond of simple carbohydrates, such as refined sugar. Within a matter of hours, plaque bacteria can convert carbohydrates into enamel-decaying acids.

All forms of dental disease begin with plaque. For this reason, keeping this gummy substance under control is your first and most effective line of defense. If plaque is left undisturbed on your teeth for an extended period (anywhere from two days to two weeks), it can start to harden into a substance called tartar (or calculus, in dentist's terms). Since tartar bonds even more tenaciously to your teeth than plaque does, it has the potential to do more damage. Given the opportunity, tartar spreads in all directions, even down below the gum line. At the same time, plaque continues to form on top of the hardened material. The result is an all-out bacterial feeding frenzy, and the toxic by-products of this frenzy destroy your teeth and periodontia.

An accumulation of plaque leads to cavities, holes where the enamel of your teeth has been eaten away by bacteria. When plaque accumulates in your mouth very rapidly, the acid-forming bacteria that colonize it start working immediately to break down your teeth's enamel. Holes in the enamel that have been eaten away by bacteria are called cavities (or caries), and these decayed pits in the tooth's surface must be drilled out and filled.

## **Test Your Knowledge:**

1. What causes destruction of the teeth?
2. What does plaque do to the teeth?
3. How do dental cavities or caries form?
4. What is the best treatment for tooth decay?
5. How are you going to prevent plaque accumulation which leads to periodontia destruction?