

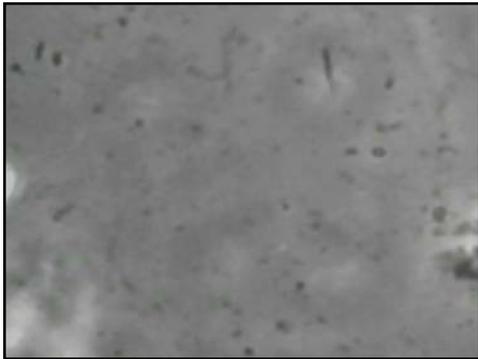


# How Teeth Decay

For your dental health.

Our goal is to help you prevent tooth decay and keep your natural teeth for a lifetime. That's why we want you to understand the process of tooth decay, from start to finish. Armed with this knowledge, you can take steps to stop tooth decay in its tracks.

## Bacteria and sugar are the culprits



*Bacteria*

Thousands of bacteria exist in everyone's mouth. Most of these bacteria are beneficial. But there are two types of bacteria, mutans streptococcus and lactobacillus, that are the primary culprits in the tooth decay process. If you're not brushing and flossing regularly, or if your oral environment is out of its natural balance, these bacteria reproduce quickly in your mouth, establishing huge colonies whenever they're given the opportunity to feast on foods that contain sugar.

Sugars, which are the building blocks of starchy foods like pasta, crackers, bread, and sweets, can build up on your teeth if you don't brush regularly. This sugar buildup is one component of plaque, a sticky film of saliva, food debris, and bacteria that's constantly forming on your teeth. If it's not removed, plaque mineralizes and can turn into rock-hard tartar in as little as 24 hours.

To survive and multiply in your mouth, the decay-causing bacteria feed off of the simple sugars that are produced from the starches you eat. This causes a chemical reaction in which the sugars are broken down into simpler elements. One of these elements is an acid. As you probably know, acid breaks down many things, including your tooth enamel. Every time you eat a starchy food, your teeth are bathed in this acid for 20 minutes or more.

## The process of decay

The acid slowly dissolves the hard, protective enamel layer on your teeth, forming a demineralized area that appears as a white or brown spot on your tooth. That spot is the first visible sign of tooth decay. If the area does not remineralize, it will progress until a hole, also known as a cavity, develops on the surface of your tooth. It's vital that we treat your tooth decay early, before it can penetrate the surface of your tooth. Once a cavity has entered the softer dentin layer of your teeth, it can grow more quickly and may lead to a much more complicated and expensive set of problems.



*Acid causes decay*



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## How to avoid decay



*Brush regularly*

The good news? You can cut down on the frequency of acid production in your mouth by limiting the number of times you eat each day. Also, when you brush and floss properly and regularly, there's very little plaque on your teeth. Consequently, the number of decay-causing bacteria on the surfaces of your teeth will be dramatically reduced, and in turn, they won't be producing the enamel-destroying acid. You should also use toothpaste that contains fluoride, which will strengthen your tooth enamel so it's more resistant to decay. And what about the times when you can't brush? You'll need to use other methods, like rinsing with water or a fluoride mouthrinse or chewing sugarless gum, to minimize the acid attacks and protect your teeth.