

Healthy Enamel

Although tooth-enamel is extremely hard, it is not totally solid. Enamel is porous and consists of many closely-packed rods made up of minerals.

Decay Process

Decay is caused by acid attack. Certain foods, especially sugars, are broken down by bacteria in plaque on the tooth surface to form acids. While acids are formed on the outside of the tooth, the actual damage begins below the surface. Acids seep down the spaces between the mineral rods and begin to dissolve them. This is demineralization.

Weakened Enamel

The result of continued demineralization is a weak spot or an area of many weakened enamel rods. It looks chalky or whiter than normal to the dentist and is sometimes called a white spot.

Rebuilt Enamel

As acids dissolve the enamel (demineralization), minerals from saliva also seep down the rods to rebuild them. This is remineralization. Demineralization and remineralization are natural ongoing processes affecting everyone. When remineralization exceeds demineralization, the weak spot may rebuild itself naturally. One way fluoride works is to help speed up the natural rebuilding process.

Cavity

If enamel decays at a faster rate than it is rebuilt, the weak spot may grow larger. The weak spot may become so large that the surface enamel will collapse to create a cavity.

Preventative Dental Treatment

Because you can't see the weak spots being formed, it's very important for your dentist to monitor them. Only by regular monitoring can your dentist provide the office treatment and recommend the home care procedures to help keep weak spots from becoming cavities.

Demineralization vs Remineralization A CONSTANT BATTLE

