

Enamel and Erosion

Your teeth's enamel may be tough, but your teeth still need your help to protect them from erosion. Read on to learn more.

What is tooth enamel?

Enamel is the white looking outer covering of the tooth crown. This protective shell is the hardest tissue in the human body.

What does tooth enamel do?

Tooth enamel protects your teeth from daily wear and tear. It also protects teeth from sensitivity to heat and cold. And, although this tissue is tough, it can chip or crack. Unfortunately, enamel can only remineralize to a certain degree, so it's important to protect it from injury and erosion, and if it becomes damaged, for your dentist to mend it.

What is acid erosion?

Acid erosion occurs when acids wear away at the tooth's enamel. When erosion occurs, it exposes the tooth's inner layers, which increases sensitivity and makes the tooth more susceptible to cavities or tooth decay.

What causes acid erosion?

Acid erosion can be caused by the following:

- Excessive soft drink consumption, especially with beverages that contain high levels of phosphoric and citric acids
- Sports and energy drinks
- Fruit drinks
- Plaque
- Diets high in sugar and starches
- Medical factors that damage the enamel, including acid corrosion (due to conditions such as bulimia and acid reflux disease)

Damage to the enamel also can be caused by environmental factors, including friction (bruxism) and abrasion (brushing too hard).

What are the signs of erosion?

The signs of erosion vary but may include:

- Tooth sensitivity that ranges from mild to severe when exposed to certain foods and temperatures
- Tooth discoloration
- Tooth transparency
- Cracks and chips on the edges of teeth

Another sign of erosion is indentations in the tooth's surface. These tiny indentations also are referred to as "cupping."



How can acid erosion be prevented?

It's important to brush and floss teeth daily, as well as see your dentist every six months for regular checkups and cleanings. If erosion is a concern, your dentist may recommend the following:

- Eliminate or reduce highly acidic foods and drinks from your diet.
- Avoid brushing immediately after consuming acidic foods or drinks. Acidic foods and drinks soften the enamel, which then can be damaged by the abrasive action of brushing. Wait to brush for at least 30 minutes to allow your mouth to produce enough saliva to neutralize the acidity and allow the enamel to harden.
- Rinse your mouth with water after consuming acidic foods or drinks. Water helps reduce acidity in the mouth.
- If you drink acidic drinks, use a straw and don't swish the liquid around in your mouth. (The straw pushes the liquid to the back of your mouth, reducing contact with the teeth.)
- Avoid sugary snacks.
- Chew sugar-free gum between meals. Chewing gum increases saliva production.
- Drink water throughout the day.
- Use a fluoride toothpaste.

Ask your dentist about whether or not you should add a fluoride mouthwash to your daily oral health care routine. For some patients, this may be recommended.

How is erosion treated?

If enamel loss is minimal, he or she may apply a bonding material that will protect the tooth and improve its appearance. If the enamel loss is more significant, your dentist may recommend protecting the tooth by covering it with a crown. You and your dentist together can determine the best treatment option for you.

For more information about how to protect your teeth from erosion, talk with your dentist.

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