

Is a taste of ice cream or a sip of coffee sometimes a painful experience for you? Does brushing or flossing make you wince occasionally? If so, you may have a common problem called “sensitive teeth.”

What Causes Sensitive Teeth?

Cavities and fractured teeth can cause sensitive teeth. But if your dentist has ruled these problems out, then worn tooth enamel or an exposed tooth root may be the cause.



A layer of enamel, the strongest substance in the body, protects the crowns of healthy teeth. A layer called cementum protects the tooth root under the gum line. Underneath the enamel and the cementum is dentin, a part of the tooth that is less dense than enamel or cementum.

The dentin contains microscopic tubules (small hollow tubes or canals). When the dentin loses its protective covering, the tubules allow heat and cold or acidic or sticky foods to stimulate the nerves and cells inside the tooth. This causes hypersensitivity and occasional discomfort. Fortunately, the irritation does not cause permanent damage to the pulp.

Dentin may be exposed when gums recede. The result can be hypersensitivity near the gum line.



Magnified tooth surface with open dentin tubules.



Magnified tooth surface with dipotassium oxalate which “closes” dentin tubules.

Preventing Sensitive Teeth

Proper oral hygiene is the key to preventing gums from receding and causing sensitive-tooth pain. If you brush your teeth incorrectly or even over-brush, gum problems can result. Ask your dentist if you have any questions about your daily oral hygiene routine.

Treatment

Sensitive teeth can be treated. Your dentist may suggest that you try a desensitizing toothpaste, which contains compounds that help block transmission of sensation from the tooth surface to the nerve. Desensitizing toothpaste usually requires several applications before the sensitivity is reduced. When choosing toothpaste or any other dental care products, look for those that display the American Dental Association’s Seal of Acceptance — your assurance that products have met ADA criteria for safety and effectiveness.



If the desensitizing toothpaste does not ease your discomfort, your dentist may suggest in-office techniques. A fluoride gel, which strengthens tooth enamel and reduces the transmission of sensations, may be applied to the sensitive areas of the teeth.

If receding gums cause the sensitivity, your dentist may use agents that bond to the tooth root to “seal” the sensitive teeth. The sealer usually is composed of a plastic material.

In cases where hypersensitivity is severe and persistent and cannot be treated by other means, your dentist may recommend endodontic (root canal) treatment to eliminate the problem.