What Is Tooth Sensitivity?
Tooth sensitivity is tooth discomfort in one or more teeth that is triggered by hot, cold, sweet or sour foods and drinks, or even by breathing cold air. The pain can be sharp, sudden, and shoot deep into the nerve endings of your teeth.

What Causes Tooth Sensitivity?
Tooth sensitivity occurs when the underlying layer of your teeth - the dentin - becomes exposed as a result of receding gum tissue (the protective blanket that covers the tooth roots). The roots, which are not covered by hard enamel, contain thousands of microscopic tubules (small hollow tubes or canals) leading to the tooth’s never center (the pulp). When the dentin loses its protective covering, these dentinal tubules allow the stimuli - for example, the hot, cold, or sweet food - to reach the cells and nerves in the tooth, which results in the pain you feel. There are many factors that may lead to the development of tooth sensitivity, including:

- Brushing too hard. If you brush your teeth incorrectly or brush too aggressively, you may injure your gums and expose tooth roots.
- Recession of the gums. As gums move away from a tooth due to conditions such as periodontal disease, the root surface becomes exposed.
- Periodontal disease (an infection of the gums and bone that support the teeth). If the disease is left untreated, gum tissues can separate from the teeth and form spaces called pockets that provide a home for bacteria.
- Cracked teeth. Chipped or broken teeth may fill with bacteria from plaque and enter the pulp causing inflammation.
- Teeth grinding. Grinding or clenching your teeth may wear down the enamel and expose underlying dentin.
- Tooth whitening products or toothpaste with baking soda and peroxide. These products are major contributors to tooth sensitivity.
- Your age. Tooth sensitivity is highest between the ages of 25 and 30.
- Plaque build-up. The presence of plaque on the root surfaces can cause sensitivity.
- Mouthwash use. Long-term use of some mouthwashes. Some over-the-counter mouthwashes contain acids that can worsen tooth sensitivity if you have exposed dentin (the middle layer of the tooth). The acids further damage the dentin layer of the tooth. If you have dentin sensitivity, ask your dentist about the use of a neutral fluoride solution.

What Can I Do to Reduce Tooth Sensitivity?
- Maintain good oral hygiene. Proper oral hygiene is the most important step in preventing tooth decay, periodontal disease and pain from sensitive teeth.
- Use a soft bristled toothbrush. This will result in less toothbrush abrasion to the tooth surface and less irritation to your gums. Brush gently and carefully around the gum line so you do not remove more gum tissue.
- Use desensitizing toothpaste. These toothpastes contain compounds that help block sensation traveling from the tooth surface to the nerve and usually require several applications before the sensitivity is reduced. Another tip: spread a thin layer of the toothpaste on the exposed tooth roots with your finger or a Q-tip before you go to bed.
- Watch what you eat. Frequent consumption of highly acid foods can gradually dissolve tooth enamel and lead to dentin exposure. They may also aggravate the sensitivity and start the pain reaction.
- Use fluoridated dental products. A fluoride gel or special desensitizing agents may be applied to the sensitive areas of the affected teeth. Ask your dentist about available products for home use or in the dental office.
- Avoid teeth grinding. If you grind or clench your teeth, use a mouth guard at night.
- See your dentist at regularly. Get professional tooth cleaning, oral hygiene instructions, and fluoride treatments every 6 months. Regular dental checkups are important so that tooth decay, periodontal disease and other problems may be detected and treated in the early stages.
- Surgical gum graft. A procedure sometimes recommended by your dentist designed to cover the root, protect the tooth and reduce the sensitivity.
- Endodontic treatment. In cases in which your tooth sensitivity is severe and persistent and cannot be treated by other means, your dentist may recommend endodontic (root canal) treatment to eliminate the problem.