

CLINICAL INFORMATION

TOOTH SENSITIVITY

Many patients experience tooth sensitivity to hot, cold, sweets, and touch. One of the most common causes of this discomfort is a syndrome called root surface sensitivity. Through gum recession, the root surface of a tooth can become exposed to the oral environment. The tooth root is made up of small tubules filled with fluid. The tubules extend from the pulp tissue (nerve of the tooth) to the external surface of the tooth. In the case of root surface exposure, the ends of the tubules are open to the mouth. Sensitivity occurs when anything causes fluid movement in the tubules. Most forms of treatment are directed toward blocking the open tubules. The entire market of "sensitivity formula" toothpastes and rinses are designed for this problem. Unfortunately, many commercially available treatments are ineffective and/or potentially damaging to the teeth.

In our practice, we address this problem from two directions. The fluoride crystal is approximately the same size as the tubules. Therefore, we recommend a fluoride gel or rinse to block the tubules. In most cases, this form of treatment is very effective and no further therapy is required. Fluoride also kills bacteria and causes remineralization of the teeth, which are both desirable outcomes. Our other approach is to attempt to limit further recession. We can accomplish this through atraumatic brushing techniques. Often, we will recommend an ultrasonic toothbrush to control the brushing power and limit trauma to the tissues and teeth.

Over time, exposed root surfaces can begin to "notch out" from wear, erosion, and brushing. In these cases we can usually bond over these areas with tooth-colored restorative materials. The rebuilt surface replaces the missing contour of the tooth and eliminates sensitivity. Also, further wear is on the restorative material rather than the tooth.

Note: Dr. David Pashley, a friend and colleague at the Medical College of Georgia, is the world's authority on this subject. Our knowledge in this area is gained through his research and teaching.