

Sealing out tooth decay

Dental sealants are thin plastic coatings placed over the chewing surfaces of back teeth to protect them from developing caries (tooth decay). Sealants cover the bumpy surfaces and crevices called “pits and fissures.” They keep food and plaque from getting trapped in those spaces.

TOOTH DECAY

When you eat, bits of food cling to your teeth and can help form plaque, a sticky film that builds up on tooth surfaces. Plaque is made of bacteria, and it produces acid from the food you eat. If that acid attacks your teeth repeatedly, it can eat away at them and cause tooth decay. Tooth decay is painful, and if it goes untreated, you can develop an infection or may need to have the tooth pulled. If you think you have tooth decay, see your dentist. Only a dentist can treat tooth decay and restore your tooth.

Brushing your teeth twice a day and cleaning between your teeth at least once daily to remove plaque can help prevent tooth decay. Unfortunately, toothbrush bristles cannot get into the pits and fissures on the chewing surfaces of premolars and molars (back teeth), which allows plaque to collect in these areas. Because these surfaces grind the food we eat, they are at high risk of developing tooth decay. Sealants can reduce that risk by preventing food and plaque from collecting in the pits and fissures.

DENTAL SEALANTS

Dentists apply sealants to the chewing surfaces of back teeth. The sealant goes on as a liquid so it can fill in the pits and fissures. It then quickly hardens to provide a protective covering over the tooth surface.

To ensure that the sealant will adhere properly, the dentist needs to prepare the tooth surface. This preparation usually is quick and rarely, if ever, causes any discomfort. The dentist needs to clean and condition the tooth. Once the surface is ready, he or she applies the sealant. Sometimes the dentist uses a curing light to help the sealant harden. Sealants can be applied in one brief visit.

As long as sealants remain intact, they can protect the chewing surfaces from decay in children and adults. Sealants are durable and can stand up to daily chewing forces for months or even years. Of course, everyone is different, and the protective coating may



Tooth before sealant application.



Tooth after sealant application.

wear down at different rates in different people. Seeing your dentist on a regular basis is the best way to ensure that your sealants are in good condition.

Sealants are valuable in protecting the chewing surfaces of molars, but regular brushing is needed to prevent tooth decay. Preventing tooth decay—in the primary, or “baby,” teeth as well as in the permanent ones that we carry into adulthood—is important to your health. Talk with your dentist about sealants and other ways to keep your smile healthy. ■

Prepared by the American Dental Association ADA Division of Science. Copyright © 2010 American Dental Association. Unlike other portions of JADA, the print version of this page may be clipped and photocopied as a handout for patients without reprint permission from the ADA Publishing Division. Any other use, copying or distribution of this material, whether in printed or electronic form and including the copying and posting of this material on a Web site, is strictly prohibited without prior written consent of the ADA Publishing Division.

“For the Dental Patient” provides general information on dental treatments to dental patients. It is designed to prompt discussion between dentist and patient about treatment options and does not substitute for the dentist’s professional assessment based on the individual patient’s needs and desires.