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Dental Sealants

A sealant is a plastic material that is usually applied to the chewing surfaces of the back teeth – premolars and molars. This plastic resin bonds into the depressions and grooves (pits and fissures) of the chewing surfaces of back teeth. The net result is that the surface of the tooth is somewhat flatter and smoother. The sealant acts as a barrier, protecting enamel from plaque and acids.

Thorough brushing and flossing help remove food particles and plaque from smooth surfaces of teeth. But toothbrush bristles cannot reach all the way into the depressions and grooves to extract food and plaque. Sealants protect these vulnerable areas by “sealing out” plaque and food. There are no longer any places on the chewing part of the tooth that the bristles of a toothbrush can’t reach and clean. Since plaque can be removed more easily and effectively, there is much less chance that decay will start.

First permanent molars erupt into the mouth at about age 6 years. Placing sealants on these teeth shortly after they erupt protects them from developing caries in areas of the teeth where food and bacteria collect. If sealants were applied routinely to susceptible tooth surfaces in conjunction with the appropriate use of fluoride, most tooth decay in children could be prevented.

Second permanent molars erupt into the mouth at about age 12 years. Pit and fissures on the surfaces of these teeth are as susceptible to dental caries as the first permanent molars of younger children. Therefore, young teens need to receive dental sealants shortly after the eruption of their second permanent molars.

Sealants are easy for the dentist to apply, and it takes only a few minutes to seal each tooth. The teeth that will be sealed are cleaned. Then the chewing surfaces are roughened with an acid solution to help the sealant adhere to the tooth. The sealant is then ‘painted’ onto the tooth enamel, where it bonds directly to the tooth and hardens. Sometimes a special curing light is used to help the sealant harden.

As long as the sealant remains intact, the tooth surface will be protected from decay. Sealants hold up well under the force of normal chewing and usually last several years before a reapplication is needed. During regular dental visits, the dentist will check the condition of the sealants and reapply them when necessary. Dental sealants do not replace fluoride – they work together to prevent tooth decay.