

## Prevention of decay with Dental Sealants

Sealants are a caries prevention barrier made of a clear or white plastic coating that sticks or bonds to the chewing surface. They are used to cover particular teeth to help prevent tooth decay. Sealants do not dissolve in saliva and are safe. They were first introduced in the 1960s and have been widely used since. A 15-year study completed in 1991 by RJ Simonsen showed that “74% of permanent first molars that received sealants remained caries free (without decay).”

Sealants work as a barrier so that cavity causing bacterial plaque cannot stick in the grooves and pits on the chewing surfaces of teeth preventing early tooth decay. Because the sealant fills a deep groove and makes a smooth surface it is easier to keep the tooth surface clean of plaque with a tooth brush. Making it easier to keep bacterial plaque off the tooth surface also reduces the risk of tooth decay. A combination of sealants (on teeth) and fluoride (in water or toothpaste) will decrease the chances of decay in the permanent teeth of many children. Sealants are applied by the dentist or dental hygienist. They take a few minutes to apply to the teeth and because they are painless to apply they do not require any injections.

Sealants are normally placed on permanent teeth in the back of the mouth. This is because the molar teeth have the highest risk of tooth decay. In most children, the first permanent molars appear about age six or seven years and the second molars about age 11 or 12 years. The best time to seal these teeth is when they have just come out completely in the mouth and have had little exposure to bacteria. Some permanent molars erupt with defects in their surfaces. These defects are like holes that can communicate to the center of the teeth and depending on the size of these defects a tooth colored filling might be indicated instead of the sealant.

Sealants are applied by first cleaning and drying the tooth or teeth. Then a conditioning gel is placed on the tooth and rinsed off. The sealant is applied as a thin layer of plastic liquid which flows into the groove or pit with a brush. In order for the sealant to stick the tooth must be kept dry thus some cooperation from the child is important in order to keep the tooth absolutely dry. A blue light is then placed on the tooth and the sealant then hardens into a tough layer that prevents decay from occurring.

Although sealants can become loose, wear or fracture and the tooth can develop decay despite the sealant; they are inexpensive and are easily replaced. The benefit of sealing the teeth early outweighs the cost. Your dentist or dental hygienist should check existing sealants regularly.

Daily flossing and brushing of your teeth and a healthy diet also helps to eliminate dental decay. Remember to clean your teeth at least twice a day after meals, eat a healthy diet and enjoy a wide variety of nutritious foods, limit sugary foods and sweets especially between meals, drink plenty of tap water with fluoride, and have regular dental check-ups.

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