

## Dental sealants effective but underutilized: What can pediatricians do?

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Dental sealants can reduce decay in the pits and fissures of the occlusal surfaces of teeth by nearly 80% (Griffin SO, et al. *J Public Health Dent.* 2018;78:17-24). Sealants also have been shown to arrest the progress of incipient lesions as long as the enamel surface is intact (Wright JT, et al. *J Am Dent Assoc.* 2016;147:672-682.e12).

Despite strong evidence of effectiveness, dental sealants are underutilized in the United States. Nearly 60% of children ages 6-11 do not get sealants, and children from low-income families are 20% less likely to get sealants than children from higher-income families, according to the Centers for Disease Control and Prevention (CDC). Furthermore, more than 80% of low-income children without sealants will develop a cavity compared to 52% of their higher-income counterparts.

Applying sealants to the more than 7 million low-income children in the U.S. could save up to \$300 million in dental treatment costs, according to the CDC. All state Medicaid programs and most private dental insurance plans cover sealant application.

Sealants most commonly are applied to permanent first and second molars, which typically erupt at ages 6 and 12 years, respectively. Sealants are applied by dental professionals in dental offices and as part of school-based mobile dental programs. Sealants do not require the patient to receive local anesthetic or drilling. Sealant material, which starts as a liquid, is flowed into the deep pits and fissures and then typically is light cured to turn the material into a hard plastic that can be chewed on immediately.

Questions have arisen over exposure to bisphenol A (BPA) in sealants. It has been suggested that BPA may have estrogen-like effects. Some sealant materials are free of these monomers. Additionally, none of the sealant material with the American Dental Association (ADA) Seal of Acceptance produces detectable levels of BPA (American Dental Association. *J Gt Houst Dent Soc.* 1998;70:11). Furthermore, children are exposed to more BPA from food, drinks, sunscreen, shampoo, body wash, air and thermal paper than the amount in dental sealants, according to the ADA (<http://bit.ly/2OnZnAm>).

Considering the proven benefits of sealant materials and minimal exposure to BPA, some recommend continued use of these products while taking precautions to minimize exposure (Fleisch AF, et al. *Pediatrics.* 2010;126:760-768).

Pediatricians can play a vital role in educating parents and caregivers about the importance of sealants, especially at well-child visits during middle childhood and early adolescence. Ensuring patients have a dental home or access to other means of preventive oral health services such as school-based dental

sealant programs would increase sealant prevalence rates and improve oral health, which is directly related to a patient's overall health.

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### **Resources**

- [Information for parents on dental sealants from HealthyChildren.org](#)
- [Information from the CDC on dental sealants](#)
- [Insure Kids Now Dentist Locator](#)

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