Purpose
The American Academy of Pediatric Dentistry (AAPD) recognizes that the placement of sealants and their continued maintenance are scientifically-sound and cost-effective techniques for prevention of pit and fissure caries and to prevent the progression of early noncavitated carious lesions.

Methods
This policy was originally developed by the Clinical Affairs Committee and adopted in 1999. This document is an update of the previous version, revised in 2011, and is based upon a review of current dental and medical literature related to dental sealants. The update used electronic database and hand searches of articles using the terms: dental sealants AND insurance; fields: all; limits: within the last 10 years, humans, English. Sixty-one articles matched these criteria. Papers for review were chosen from this list and from the references within selected articles. When data did not appear sufficient or were inconclusive, recommendations were based upon expert and/or consensus opinion by experienced researchers and clinicians.

Background
According to national estimates, by 17 years of age, 68 percent of children in the United States have experienced caries.\(^1\) Data indicate that around 40 percent of children ages 2-8 years have experienced dental caries in their primary teeth, with 44 percent of carious lesions in the pits and fissures.\(^2,3\) As much as 90 percent of all caries in school-aged children occurs in pits and fissures.\(^4\) The teeth at highest risk by far are permanent first and second molars where fluoride has its least preventive effect on the pits and fissures. Any tooth, including primary teeth and permanent teeth other than molars, may benefit from sealant application due to fissure anatomy and caries risk factors.\(^4,6\) Caries risk may increase due to changes in patient habits, oral microflora, or physical condition, and unsealed teeth subsequently might benefit from sealant application.\(^4,5\) Placement of pit and fissure sealants significantly reduces the percentage of incipient noncavitated carious lesions that progress in children, adolescents, and young adults, compared to unsealed teeth, for as long as five years after sealant placement.\(^7\) When placed over existing caries, sealants lower the number of viable bacteria by at least 100-fold and reduce the number of lesions with any viable bacteria by 50 percent.\(^8\)

Current data show that, although initial sealant retention rates are high, sealant loss does occur.\(^5,9\) It is in the patient’s interest to receive periodic evaluation of sealants for maintenance or replacement.\(^5,10\) Without recall and maintenance, sealant failure will compound over time, leaving previously sealed surfaces with a caries susceptibility equal to that of surfaces that never were sealed.\(^11\) With appropriate follow-up care, the success rate of sealants may be 80 to 90 percent, even after a decade.\(^5,10\)

Although sealants are safe and effective, their use continues to be low.\(^12\) Sealants are particularly effective in preventing pit and fissure caries. They provide cost savings if placed on patients during periods of greatest risk by delaying or avoiding invasive treatment and the destructive cycle of dental caries.\(^5,13-15\) However, initial insurance coverage for sealants often is denied based on the age of the patient, and insurance coverage for repair and/or replacement may be limited.\(^16-18\)

Policy statement
The AAPD encourages all policy makers and third-party payors to consult the AAPD in the development of benefit plans that best serve the oral health interests of infants, children, adolescents, and individuals with special health care needs. The AAPD advocates that the dentition periodically be evaluated for developmental defects and deep pits and fissures that may contribute to caries risk and that sealants be placed on primary and permanent teeth judged to be at risk for dental caries. AAPD encourages placement of dental sealants on early (noncavitated/incipient) carious lesions to inhibit lesion progression. Once sealants have been placed, they should be evaluated for repair or replacement as part of a periodic dental examination.

The AAPD encourages third-party payors to:
- Recognize that dental sealants are scientifically-sound and cost-effective techniques for primary or permanent teeth at increased risk for caries and for early (noncavitated/incipient) carious lesions.

ABBREVIATIONS
AAPD: American Academy Pediatric Dentistry.
• Base third-party coverage for sealants on a patient’s caries risk rather than age. Timing of the eruption of teeth can vary widely. Furthermore, caries risk may increase at any time during a patient’s life.

The AAPD shall continue to work with other dental organizations, the insurance industry, and consumer groups to make the advantages of dental sealants understood and to seek reimbursement for fees associated with their placement, maintenance, and repair.

References