

## School-Based Dental Sealant Program (SBSP)

### Reference Guide for Tooth Surface Assessment and Selection

#### Visual

The ADA and CDC both support the use of visual assessment as the method of choice for deciding sealant placement.

Visual assessment alone is sufficient to detect surface cavitation and/or signs of dentinal involvement before sealant placement.

- Before being assessed, the tooth surface should be cleaned with a toothbrush to remove debris and/or plaque.
- To detect smaller surface breaks the tooth should be dried with compressed air.
- Non-cavitated and cavitated lesions with extensive dentinal involvement may be accompanied by an underlying gray shadow.

#### Explorer (tactile)

Explorers are not necessary for detecting non-cavitated or cavitated lesions.

- Forceful use of an explorer can break and damage the enamel.
- Explorers should only be used gently to remove debris and plaque and once the tooth is sealed to help assess sealant integrity and retention.

**Radiographs and technologically advanced tools are not recommended in SBSPs.**

#### Making Decisions About Sealant Placement

- Sealing over cavitated lesions lowers the number of bacteria in the cavity by at least 100 fold.
- Small cavitated lesions can be sealed and will become arrested over time while sealed.
- The CDC expert workgroup acknowledged that SBSPs treat high-risk children from low income families without access to a dental home and may choose to select teeth for sealant application on small cavitated lesions with no signs of dentinal caries.

## Non-Cavitated (Incipient) Caries Lesions

- Usually not visible to the unaided eye.
- Lesions appear white at this stage, but can also be brown, yellow or a mix of white, brown, and yellow.
- These teeth should be sealed.



Image courtesy of Margherita Fontana, DDS, PhD



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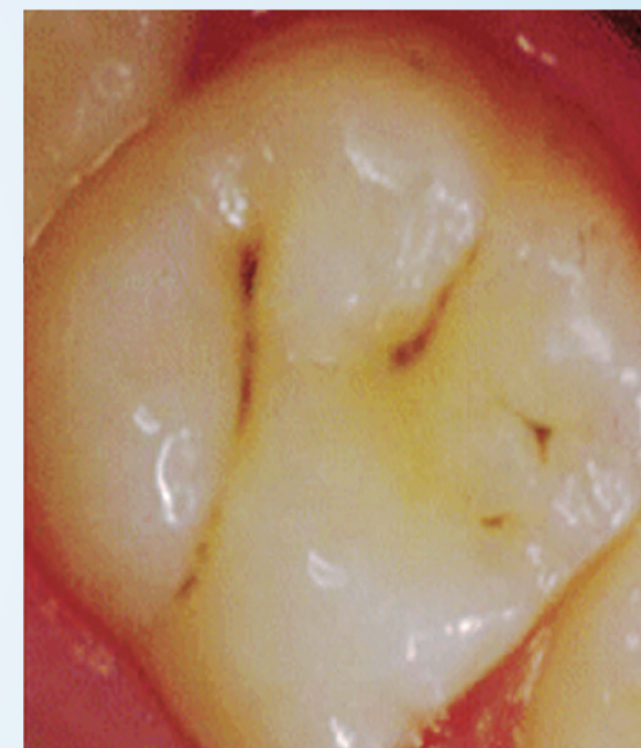


Image courtesy of Amid Ismail, BDS, MPH, MBA, DrPH



# Cavitated Caries Lesions

- There is a visible break in the enamel surface.
- If the cavitation is within the enamel it should be sealed.
- If it has progressed to dentin it requires a filling to restore function and arrest the caries process and should not be sealed.
- Lesions with dentinal involvement may have an underlying gray shadow when the tooth is wet.



Image courtesy of Margherita Fontana, DDS, PhD



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## Selecting Sealants for Repair/Replacement

### Selecting Sealants for Repair or Replacement

- Bubbles in sealant material do not require repair unless the tooth surface is exposed by the defect.
- Catches in marginal areas do not require repair unless they expose non-cleanable caries-prone areas of the fissure system.
- Staining at the interface of the sealant and enamel does not, of itself, indicate caries, but may suggest an area of microleakage that could benefit from additional sealant material.
- Before finalizing a decision on repair of a partially retained sealant, try to dislodge the remaining sealant to ensure that it cannot be lifted off. If it lifts off it must be replaced.

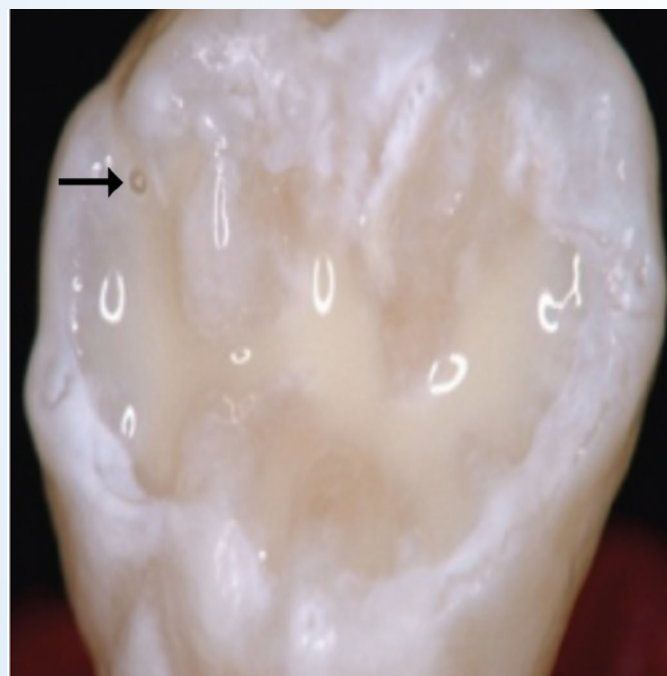


Image courtesy of Richard J. Simonsen, DDS, MS, PhD

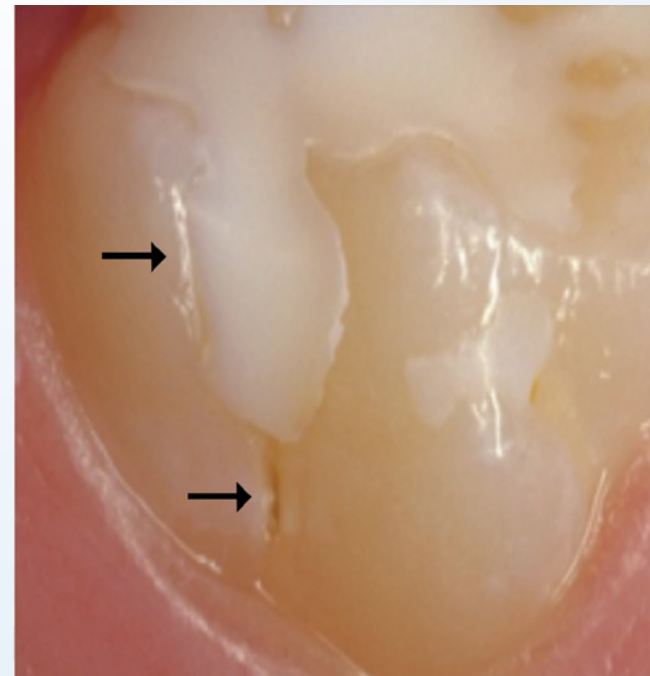


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### Note:

- A child who receives a dental sealant at a SBSP on a lesion that extended into the dentin may subsequently have the lesion identified with radiographs taken in a dentist's office.
- If it is brought to the attention of the school-based dental sealant program, both the program and the dentist must understand that, based on scientific literature, there is no reason to believe that the sealant placement caused harm. In fact, the sealant may have stopped the lesion from progressing before the dentist could assess the child.

Pocket Guide is adapted from the School-Based Dental Sealant Program Modules at:  
<https://www.mchoralhealth.org/dental-sealant/>