Practitioner Information Summary

Caries

SEALANTS AND CARIES CONTROL

Changes in oral disease patterns in Australia, recognition of various 'at risk groups' and better understanding of the causes and process of oral disease call for wiser and wider use of existing preventive methods.

Sealants are an important part of preventive measures in controlling dental caries. However, currently the use of sealants in a clinical situation is less frequent than might be desired or recommended. This may be due to lack of understanding of indications for their use or their clinical and economic efficacy. Clinicians may also have concerns about the risk and consequences of sealing teeth with early decay.

Clinical studies show that if a sealant is thoroughly placed, any microscopic caries in enamel will be sealed in and will not progress.

Historically, sealants were developed and used to protect pits, fissures and developmental grooves from decay. Today's dentistry recognises sealants as a separate group of preventive measures that also includes 'sealant restorations' – preventive resin restorations for surfaces with early signs of caries development. The term 'sealant' can also refer to protective unfilled resins or glass ionomer cement restorations on cervical enamel or root surfaces.

Sealants and caries control

1. Sealants are most useful as an adjunct to other preventive measures for patients with a moderate or high risk of developing caries.
2. While only a low percentage of children in Australia are at high risk of developing caries, many 15–30 year-olds, older adults, medically compromised or disabled people experience high risk of decay, therefore expanded use of sealants can become a preventive option for these groups.
3. Sealants are particularly useful in adolescents and young adults and in older patients where compliance with other behavioural management programs is difficult to achieve or is inadequate.

Sealants should not be provided to low caries risk patients, as these individuals do not require any additional preventive measures. Patients that are at higher risk of decay should be considered for additional preventive measures that may include use of sealants.

Pit and fissure sealants require:

- **good moisture control when being placed;**
- **clean surfaces;**
- **appropriate etching and drying time;**
- **appropriate coverage of the surface;**
- **checking occlusion for interferences; and**
- **regular monitoring and maintenance after placement.**

The sealant restoration should be:

- **provided to patients with continuing caries risk who have fissure caries just into dentine;**
- **preferred to amalgam placement as it requires less loss of tooth structure and provides full occlusal protection against caries;**
- **placed over glass ionomer cement within cut fissures if space allows; and**
- **monitored and maintained for retention.**

Sealants will be long-lasting if:

- **the case is selected correctly**
- **the tooth is selected correctly**
- **an appropriate placement technique is followed**
- **adequate maintenance is provided**

COLGATE CARIES CONTROL PROGRAM
A joint program by Colgate Oral Care and The University of Adelaide

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