

Fissure Sealants

Fissures are the grooves that naturally occur on the biting surfaces of the teeth. All molars and premolars have fissures to some degree. Occasionally, fissures occur on canines and incisors.

If the fissures are very deep and narrow, tooth brush bristles cannot fit inside to clean out food particles.

Trapped food attracts bacteria, which multiply within the fissures and make a sticky coating called plaque. Plaque acids eat into the tooth enamel and cause decay.

Not all fissures are prone to decay. Only the deepest and narrowest fissures are at risk. A fissure is five times more likely to develop decay than other tooth surfaces. In children and adolescents, the chewing and grinding surfaces of molars and premolars are the most vulnerable.

Fissure sealants are polymer coatings that fill the fissures and protect teeth from dental plaque and acids. Glass ionomer cements may be used as an alternative material. They are also called pit-and-fissure sealants.

Many studies have shown that fissure sealants are effective in reducing the occurrence of tooth decay. On a tooth surface with completely sealed fissures, protection is 100 per cent.

As the fissure sealant wears down, protection is reduced. However, even after five years, a protected tooth has half the risk of decay compared to an unprotected tooth.

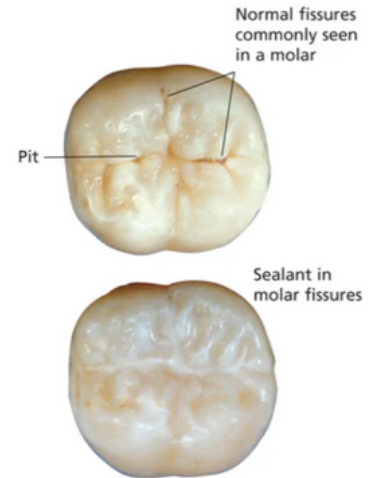
Treatment is painless and non-invasive, with a coat of the sealant applied to a cleaned tooth. The liquid sets in minutes and forms a physical barrier that stops food, bacteria and plaque acids from contacting the tooth surface. Fissure sealants may be white, clear or tinted.

Most sealants are applied to molars and premolars. Any tooth that has fissures and pits can be treated. Primary or 'baby' molars may also be treated. Fissure sealants gradually wear away after several years and can be reapplied if needed.

Your dentist or hygienist may suggest the use of fissure sealants after an examination of your teeth, or those of your child or teenager. It is common to treat only those teeth most at risk of decay. However, your dentist may recommend treatment of all premolars and molars as a safe guard. If detected very early, tooth decay can sometimes be treated with a fissure sealant instead of a filling.

Early Treatment

The best time to apply fissure sealants is immediately after the permanent teeth appear. Permanent teeth are the second set of teeth that erupt during childhood and should be kept throughout adult life. The first permanent molars appear around the age of six or seven. The permanent teeth, including premolars erupt between 11 and 14 years of age. The third molars (wisdom teeth) usually erupt during early adult hood. Some people have no third molars. It is usual to wait until a tooth is fully erupted before applying a fissure sealant.



The biting surfaces of premolars and molars are likely to have fissures, some of which may be deep and prone to decay. Pits are deep indentations that can also be protected with a fissure sealant.

However, the dentist may suggest sealing partially erupted teeth if early signs of decay are present.

Fissure sealants can be applied to primary 'baby' teeth, and your child's dentist may recommend this. Fissure sealants can also be used to preserve healthy teeth in adults.

Before Treatment

Your dentist will need your complete medical and dental history. The treatment recommended depends on factors such as:

- your age
- your dental health problems
- your history of tooth decay.

First, your teeth must be prepared for sealing. This may include X-rays, cleaning and scaling of teeth to remove plaque.

