

# Sealants and PRRs sealing and protecting grooves

This information sheet has been designed to inform you of the treatment that has been proposed in your individual case. Please take the time to read the information and please do not hesitate to ask if you any queries.

**Dr Thai has recommended either a Fissure Sealant or Preventive Resin Restoration because your teeth show signs of:**

- Deep fissures, pits or grooves
- Evidence or the possibility of decay starting in the grooves
- Discolouration or staining in the grooves
- “Sticky” feeling to probing

## Fissure Sealants

A sealant is a hard plastic coating applied to the pits and fissures (grooves) on the chewing surfaces of premolars and molars. It is used as a barrier to protect the grooves from decay where toothbrush bristles cannot clean.

- Sealants are best done as the teeth come through in the mouth on newly erupted teeth before bacteria have a chance to form decay.
- Provided the sealant stays intact, it can protect the grooves for many years. Regular check-ups are necessary to assess the sealants to ensure they have not chipped or decay is not forming underneath.
- Sealants require no injection or drilling and are relatively easy to place so they are comparatively lower cost than having a filling done.
- Sealants can be clear, white or tooth coloured

The introduction of water fluoridation in Australia in the 1960's has been a major success in preventive dentistry with a big reduction in decay. Fluoride produces a great increase in the hardness of enamel but this also makes it more difficult for the dentist to diagnose early decay forming in the grooves.

Bacteria can penetrate down these very fine fissures and begin decay in the softer dentine layer inside the tooth where it cannot be seen or easily felt with a sharp dental probe. Sometimes there may be staining in the grooves or slight discoloration evident through the enamel but often the deeper decay can go undetected for many years with large internal cavities present despite the fact that the tooth looks fairly normal on the outside.

Even x-rays can fail to detect this fissure decay until it is quite advanced. To prevent the occurrence and progress of fissure decay two different treatments have been devised.

## Preventive Resin Restorations (PRRs)

The PRR is similar to the fissure sealant and is commonly performed when there is evidence or possibility of decay in the grooves. The PRR is commonly done on teens and adults, on teeth with grooves that are 'stained' – meaning there is a good chance of finding decay deep in the groove.

- The grooves are initially investigated and any decay present is carefully removed prior to bonding a very minimal filling.
- In most cases the decay can be completely removed without discomfort and without the need for injection.
- Once the decay is fully removed the tooth is filled with a tooth coloured composite resin filling using conventional bonding techniques. This makes a durable, white filling in the groove which is sealed very effectively to the enamel.

It is best that a PRR is done early; almost immediately once the tooth has fully emerged from the gum and prior to any serious decay getting established in the grooves.

As with restorations, sealants and PRRs are also best placed using rubber dam.