

It is necessary to remove plaque and debris from the enamel and the pits and fissures of the tooth. Any debris that is not removed will interfere with the proper etching process and the sealant penetration into the fissures and pits. Children who are to have fissure sealant applied should brush their teeth / have their teeth brushed with a toothbrush beforehand.

Risk Assessment

This risk assessment reduces the possibility of children with oral/ facial infections being included.

The risk assessment is carried out **BEFORE** the application procedure is started. This is to ensure that any child with any abnormality of the lips, face or soft tissues of the mouth is excluded. Children who are showing obvious signs of systemic illness e.g. colds, 'flu, chicken pox etc should also be excluded on that day.

The Risk Assessment should be carried out as follows:

The Extra-Oral Assessment

- Check the skin of the face and around the mouth for abnormalities (spots, inflammation, swelling etc)
- Check the lips for lesions/ infections

The Intra-Oral Assessment

- Check the right and left inner cheeks and the insides of the lips using the disposable mirror provided in the pack
- Check the top and underneath the tongue.

The teeth and gums should be checked for signs of decay and/ or infection in the following order:

- Check the upper right teeth and gums
- Check the upper left teeth and gums
- Check the lower right teeth and gums
- Check the lower left teeth and gums

If everything appears normal the fissure sealant may be applied. Children with abnormalities of the skin around the mouth, lips (e.g. cold sores), or soft tissue lesions should not have the fissure sealant applied.

If the child has any abnormality of the lips or mouth, they should be referred for a dental opinion.

The Application Procedure

Once the risk assessment has been carried out, the application procedure can begin. If a child gets upset or protests during any part of the procedure, the procedure should be abandoned.

Step 1: Isolate the tooth/teeth

- It is absolutely imperative to keep the tooth free from salivary contamination
- Use dry guards, cotton wool rolls or saliva ejectors to aid moisture control

Step 2: Dry the surfaces

Step 3: Etch the surfaces

- The etchant should be applied to all the pits and fissures. In addition, it should be applied at least a few millimeters beyond the final margin of the sealant and in accordance with manufacturer directions
- Do not allow the etchant to come into contact with the soft tissue. If this occurs, rinse the soft tissue thoroughly

Step 4: Rinse and dry the tooth/teeth

- Rinse all the etchant material from the tooth in accordance with manufacturer directions
- The tooth is dried until it has a chalky, frosted appearance. If it does not, the tooth should be re-etched in accordance with manufacturer directions. It is

imperative to avoid salivary contamination. There is agreement that moisture contamination at this stage of the process is the most common cause of sealant failure

Step 5: Apply the material and evaluate for voids, marginal discrepancies or retention problems

- Be careful not to incorporate air bubbles in the material
- Follow protocol for light cured dental sealant material in accordance with manufacturer directions
- After the sealant has set, the operator should wipe the sealed surface with a wet cotton pellet. This allows for the removal of the air-inhibited layer of the non-polymerized resin. Failure to perform this step may leave an objectionable taste in the child's mouth

Step 6: Evaluate the sealant

- The sealant should be evaluated visually and tactically. Attempt to dislodge it with a probe
- If there are any deficiencies in the material, more sealant material should be applied

Step 7: Evaluate the occlusion

- Unfilled resins will wear down naturally and do not require occlusal adjustment

Step 8: End of Procedure

- Reward child with a motivation sticker