

Silver Diamine Fluoride for Adults

Information for patients

What is silver diamine fluoride (SDF)?

It is a clear liquid that contains silver and fluoride. These elements work together to slow or halt tooth decay.

Why has SDF been recommended to me?

SDF is a simple treatment for tooth decay, particularly root surface decay and can remove the need to have a filling placed. For some adults having fillings placed would be very difficult and may cause the tooth to weaken and break.

What is involved having treatment with SDF?

You will wear safety glasses or be treated in an upright position to prevent any solution going into your eyes.

Your lips and gums will be protected with cotton wool and petroleum jelly.

The teeth will be dried.

The SDF solution is applied to the tooth for 1-3 mins, the tooth is then dried again and cleaned.

What are the advantages of treatment with SDF?

- It is easy to apply
- It can be applied at home by a dental professional if you cannot leave the house for medical reasons
- It can halt decay and prevent the need for fillings, especially root surface fillings which can potentially weaken teeth and cause them to break
- The treatment can be repeated every 6 months
- It is a good treatment option for patients who are unable to maintain thorough oral hygiene or unable to tolerate more complicated procedures.

What are the disadvantages of treatment with SDF?

- It discolours the decayed part of the tooth black. This is permanent
- It can permanently stain clothes and work surfaces if it comes into contact with them. This is unlikely to happen as precautions will be taken against this
- It can cause temporary brown staining of the gums and skin should it come into contact with them. This disappears in 2-3 weeks
- It can discolour tooth-coloured fillings. This can be polished away.

What are the alternatives to SDF?

- The main alternative treatment to SDF is application of fluoride varnish, in combination with very thorough oral hygiene. Studies show this is not as effective a treatment as SDF
- Doing nothing and/or reviewing the tooth
- A traditional filling is an alternative but may weaken the tooth to the point of breaking
- Extracting the tooth.

When should it not be used?

- It is not suitable for teeth which are infected
- If you are actively suffering from mouth ulcers
- If you are allergic to any of the components of SDF i.e. silver, ammonia, fluoride, iodine
- If you do not accept the permanent black staining of the decay associated with SDF
- Potassium iodide is used following SDF to help prevent staining. This can't be used on those suffering from thyroid disease, those pregnant or breastfeeding.

Further information

The World Health Organisation (WHO) has included SDF on their list of essential medicines. It is widely used in Japan, Australia, Brazil, Canada and the USA for the treatment of dental decay.