

SILVER DIAMINE FLUORIDE

Information for Patients and their Carers

Silver diamine fluoride (**SDF**) is a colourless, odourless solution of silver, fluoride (the active ingredients) and ammonium (stabilising agent) ions.

The fluoride content is 2.24mg per drop. One drop is used per area of each tooth treated.

When it is placed on a decayed area of a tooth it can stop the progression of the decay process by:

- Killing the bacteria involved
- Encouraging the remineralisation (healing) of the tooth
- Discourages the further breakdown of the tooth structure (the collagen)
- Blocks off the tiny tubes in the dentine to reduce sensitivity

Its use is suitable to treat:

- Decayed baby teeth that are not infected
- Teeth that can't be restored in any other way
- Decay on roots of teeth
- Sensitive areas of a tooth
- MIH – your dentist will explain

It needs your help to work:

- you (or your parent) need to clean the tooth with a toothbrush properly as recommended by your dentist or hygienist.
- Please follow the advice given to you regarding fluoride toothpaste use and/or dietary changes

How does a dentist use it?

- Your dentist will need to place petroleum jelly on your lips and gums and then dry your tooth and place cotton wool rolls to keep your tooth dry
- A very small brush will be used to place a drop of SDF on your tooth
- A second drop, this time of potassium iodine can be placed as this has some evidence that it can reduce the black staining – see below.
- The SDF needs 1 min to be allowed to dry and then the tooth will be rinsed with water
- It can taste a bit metallic but a dab of toothpaste on your tongue quickly gets rid of the taste!

Other points:

- Your dentist will monitor the tooth/teeth into the future to ensure that the treatment has worked and whether the tooth/teeth need further treatment eg filling/crown etc perhaps to improve the appearance of the area if needed.
- SDF is most effective when placed twice a year.
- Staining: The painted decayed area will stain permanently black. Healthy parts of the tooth will not stain. Tooth coloured fillings may discolour if SDF is applied to them but can usually be polished off to make them white again. If SDF is applied to skin/gum, it will cause a temporary stain, like a henna tattoo which is harmless and disappears within 1-3 weeks. If SDF accidentally gets on clothing it permanently stains.
- This minimally invasive technique can be useful for people who, for various reasons, find dental treatment hard to cope with or whose medical history complicates dental treatment.
- Please tell your dentist if you have an allergy to silver, fluoride or ammonia. Also please tell your dentist if you are pregnant, breastfeeding, on thyroid medication, having thyroid gland therapy or have an allergy to potassium or iodine.
- Certain gum problems eg active ulcers, can mean that you are not suitable for SDF treatment.
- Sometimes SDF treatment doesn't work and the decay progresses which would mean further treatment.

IMPORTANT Please note:

The use of SDF in the UK is currently licensed for the treatment of tooth sensitivity, **NOT** the treatment of decay. The UK government services and information website "Off-label or unlicensed use of medicines: Prescribers' Responsibilities" gives details of when SDF can be used "off-label" ie for the treatment of tooth decay, namely:

- a. There is a body of evidence supporting its efficacy
- b. There is no alternative, licensed medicine
- c. It is used for this purpose in many other countries; in Canada SDF is approved for the treatment of tooth decay and in the US the American Dental Association and the American Academy of Pediatric Dentistry support the off-label use of SDF

Station Road Dental Care always strives to offer you the best evidence based dental care and are happy that the research behind SDF provides robust evidence for the use of SDF as described above.