



Photo credit: Roger Moody

# Silver Diamine Fluoride (SDF) Liquid Treatment



British Society of  
**Paediatric Dentistry**

Improving children's oral health

## Why have I been given this leaflet?

Your child has dental decay affecting their teeth. Your dentist thinks that Silver Diamine Fluoride (SDF) liquid is a treatment option for your child.

## What is SDF liquid?

SDF liquid contains silver and fluoride which work together to stop decay progressing further. It is a clear liquid, that has a temporary metallic taste while it is being painted on to teeth.

## Why is SDF liquid recommended for my child?

If your child is suffering from dental decay, it can progress rapidly, especially in baby teeth which have thinner enamel than adult teeth. By applying SDF liquid, your dentist can stop decay progressing which reduces the risk of toothache or infection. SDF liquid combined with improved oral hygiene and a change in diet can save teeth.

## What is involved in the treatment?

- To protect your child's lips and gums, your dentist will first apply petroleum jelly (or an alternative) and also place cotton wool next to their teeth. Their teeth will then be dried.
- The SDF liquid is painted on to the teeth for 1-3 minutes. Following this the teeth are dried a second time. Sometimes, the dentist may then place a filling over the top.
- This is all done in one appointment. A second appointment may be made to come back 2-4 weeks later to check the teeth and apply more SDF liquid if needed. SDF liquid is usually reapplied every 6 months.



## How should I prepare my child for the visit?

There are no special preparations required. However, SDF cannot be used if your child has:

- An allergy to silver or another heavy metal, or another component of SDF
- Painful gums, ulcers or sores in their mouth

Please tell the dentist if you think that any of the above apply to your child.

## What are the advantages of SDF liquid?

- It is a simple procedure that reduces sensitivity and slows down or stops tooth decay.
- In many instances SDF is more effective than fluoride varnish.
- It can buy time for children who cannot currently manage dental treatment by stopping the decay getting worse until they can have further dental treatment.

## What are the disadvantages of SDF liquid?



- It can temporarily stain the skin, lips, gums and cheeks brown or white for 1-3 weeks, this will then disappear.
  - It can also discolour tooth coloured fillings, polishing these fillings can help remove this stain but it may stay visible at the join between the tooth and the filling.
  - In the unlikely event of SDF being accidentally spilled on clothes, it can leave a stain that does not come out.
- It permanently discolours the decayed area of teeth black. Healthy parts of the tooth do not discolour.

## What are the alternatives?

- Keeping the tooth under review, but it is likely the decay will get worse
- Placing fluoride varnish
- Filling the tooth
- Placing a silver cap/crown
- Removing the tooth

Please discuss with your dentist which options are best for your child.

You may be asked to sign a written consent form, giving your consent for your child to have SDF liquid applied to their teeth. This will be after your dentist has discussed the risks and benefits of all the options available. If you have questions about the treatment, please ask your dentist either at your next appointment or over the phone.

## What else do I need to know?

SDF is fully licensed in many countries around the world where it has been safely used for many years. In the UK it is licensed for treating sensitivity only and has not been widely used until recently. It can be used for decay 'off-label' and is being more widely recommended.

If the SDF does not stop the decay progressing, other treatment may be required such as fillings or tooth removal. It is vital to maintain good tooth brushing habits and to keep sugary sweets and drinks to mealtimes to stop decay getting worse, or developing in other teeth. See back page for links to further advice such as BSPD's Practical Guide to Children's Teeth.

If you have any questions, please ask your dentist.

# Further information:

## For fun videos:

[www.bspd.co.uk/Kidsvids](http://www.bspd.co.uk/Kidsvids)

## For advice on tooth brushing and diet:

[www.bspd.co.uk/Patients](http://www.bspd.co.uk/Patients)

[www.dentalhealth.org/childrens-teeth](http://www.dentalhealth.org/childrens-teeth)

[www.nhs.uk/live-well/healthy-body/taking-care-of-childrens-teeth/](http://www.nhs.uk/live-well/healthy-body/taking-care-of-childrens-teeth/)

## For a music based app to make tooth brushing fun:

[www.brushdj.com](http://www.brushdj.com)



Acknowledgements: Thank you to Laura Timms for compiling this leaflet and to Oli Sumner and Carly Dixon for their clinical photography and to the teams at University College London, the University of Dundee, Glasgow Dental Hospital and School and Sheffield University and Teaching Hospitals, for sharing their patient information resources.

The British Society of  
Paediatric Dentistry (BSPD)

at the Faculty of Dental Surgery  
The Royal College of Surgeons  
35 - 43 Lincoln's Inn Fields  
London, WC2A 3PE

For general enquiries call:  
020 7869 6540



Follow us:  
[@bspduk](#)

