

Recommendations on the use of fluoride toothpaste and fluoride supplements in Scotland 2017.

Despite continuing improvements, dental caries is still a significant problem in Scotland¹. Application of fluoride varnish at least twice a year and twice daily toothbrushing with fluoride toothpaste together with reducing the frequency of consumption of sugar in foods and drinks, especially between meals and in the evening, are key elements of effective caries prevention.²

This document had been developed by the Scottish Consultants in Dental Public Health Group in consultation with the Scottish Dental Clinical Effectiveness Programme. These recommendations are a summary of guidance developed in SIGN 138: Dental Interventions to prevent caries in children,² Delivering Better Oral Health: an evidence based toolkit for prevention³ and SDCEP Prevention and Management of Caries in Children⁴. For more detailed recommendations please refer directly to these documents.

Caries Risk Assessment

Caries risk assessment is a judgement made by a dental professional based on the likelihood of an individual developing dental caries. It considers many factors including behavioural and lifestyle factors and should consider socio-economic deprivation, dental history of parents and/or siblings and the individual caries experience of the patient together with any special medical or physical needs². It will place an individual either at standard or increased risk of dental caries.

Factors which may create an increased risk of dental caries

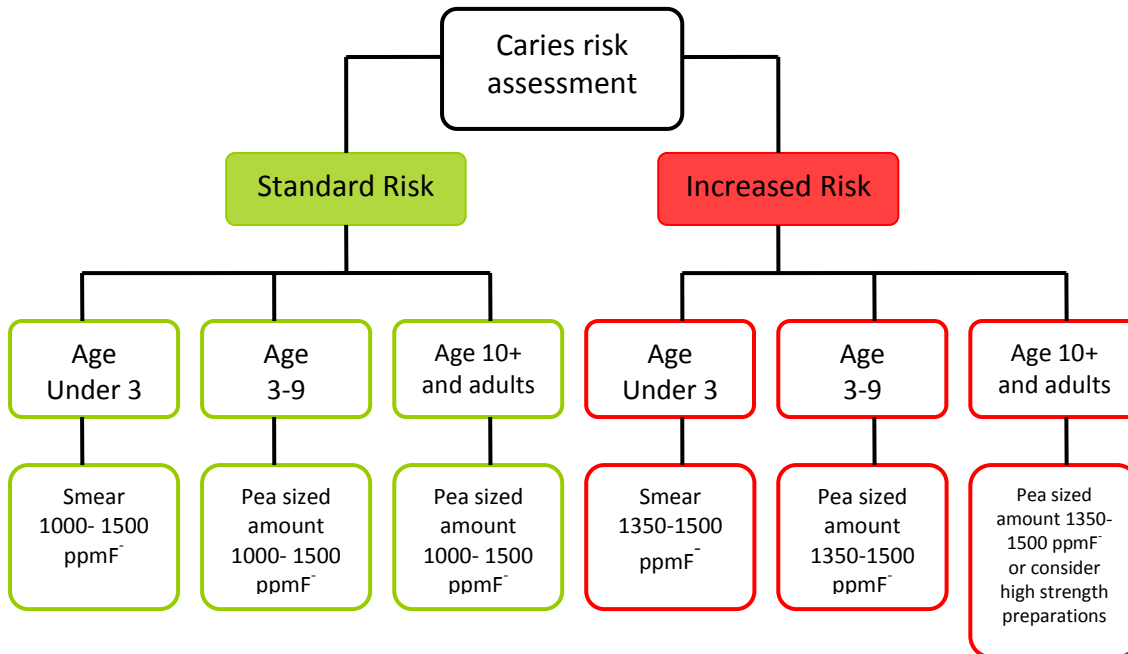
Previous dental decay
Socio-economic deprivation
High dietary intake of sugar
Low fluoride exposure
Specific medical conditions
Additional needs (learning disability)
Dry mouth

Fluoride Supplements

- All children, regardless of caries risk, should have fluoride varnish applied at least twice a year.
- The use of additional fluoride supplements such as fluoride tablets, drops or gels is no longer encouraged.
- The use of alcohol-free fluoride mouth-rinses can be considered for children over the age of 7 and adults where there is an increased caries risk and they are able to safely use the product.
- The recommended fluoride content for a daily mouth-rinse is 225ppmF⁻ (0.05%) and it should be used at a different time from toothbrushing.⁵

Fluoride Toothpaste

Advice on fluoride toothpaste use is based on age and caries risk and is summarised below.



- Toothbrushing should be completed last thing at night and at least one other time of day, from the time the first tooth erupts.
- Toothbrushing should be supervised by parents and assistance given until children are able to adequately clean all visible tooth surfaces on their own.
- Encourage children to spit out toothpaste after brushing.
- Discourage swallowing of toothpaste and active rinsing out after toothbrushing.



Image illustrating a pea sized amount of toothpaste on the left which is suitable for children over the age of 3 and adults. A smear of toothpaste is shown on the right which is suitable for children under the age of 3.

High Strength Fluoride Toothpaste (HSFT)

- The evidence base for the use of high fluoride toothpastes in adults is limited and recommendations are largely based on extrapolations from available evidence in children and adolescents.
- Prescription of these products should always be accompanied by assessment of caries risk factors and support to modify other caries risk factors such as diet.
- HSFT should only be prescribed on a short term basis and subject to regular review by a dental practitioner.
- Those with an increased risk of dental caries who exhibit active disease or significant factors predisposing them to dental caries (e.g. dry mouth or additional needs) may benefit from the use of HSFT which can be prescribed by a dental practitioner.
- An alternative to prescribing high strength preparations may be to increase the frequency of brushing with 1350-1500ppmF⁻.
- Two variants of high strength toothpaste are available for prescription under the NHS:- 2800ppmF⁻ and 5000ppmF⁻.⁵
- When prescribing high strength toothpaste 2800ppmF⁻ should be used initially unless the level of clinical need is very high. *
- The risk of fluoride toxicity should be considered in patients prescribed high strength fluoride preparations. This is especially important in patients with a compromised swallowing ability.
- Fluoride intake should not exceed 10mg daily for children over the age of 9 and adults and therefore it is important to monitor the frequency and amount of toothpaste used.

| Age | High Strength Toothpaste Recommendation, If indicated |
|-------|--|
| 0-9 | Do not prescribe |
| 10-15 | 2800ppmF ⁻ |
| 16+ | 2800ppmF ⁻ (or 5000ppmF ⁻ where clinically justifiable) |

*based in currently available dispensing packaging, prescribing 2800ppm F⁻ may offer the most cost effective method of prescribing additional fluoride.

References:

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2. Scottish Intercollegiate Guidelines Network (SIGN). Dental Interventions to prevent caries in children. Edinburgh: SIGN publication number 138; March 2014. www.sign.ac.uk
3. Department of Health. Delivering better oral health: an evidence based toolkit for prevention. Public Health England, London, March 2017.
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4. Scottish Dental Clinical Effectiveness Programme (SDCEP). Prevention and Management of Caries in Children. Dundee; April 2010. www.sdcep.org.uk
5. Scottish Dental Clinical Effectiveness Programme (SDCEP). Drug Prescribing For Dentistry. Dundee January 2016. www.sdcep.org.uk



Developed by the Scottish
Consultants in Dental Public
Health Group in
consultation with SDCEP.

Published March 2017
For review in 2020

