



Consultants in Dental Public Health Group

Recommendations on the use of fluoride toothpaste and fluoride supplements in Scotland (2022)

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 prevention².

This document has been developed by the Scottish Consultants in Dental Public Health Group. These recommendations are a summary of guidance developed in SIGN 138: Dental Interventions to prevent caries in children², 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.

Water fluoridation is out with the scope of this document. However, following a recent endorsement of Water Fluoridation by the Chief Medical Officers across the 4-nations⁵, the CSDPH and Directors of Dentistry groups issued a joint statement strongly in support of this intervention as an additional measure⁶.

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

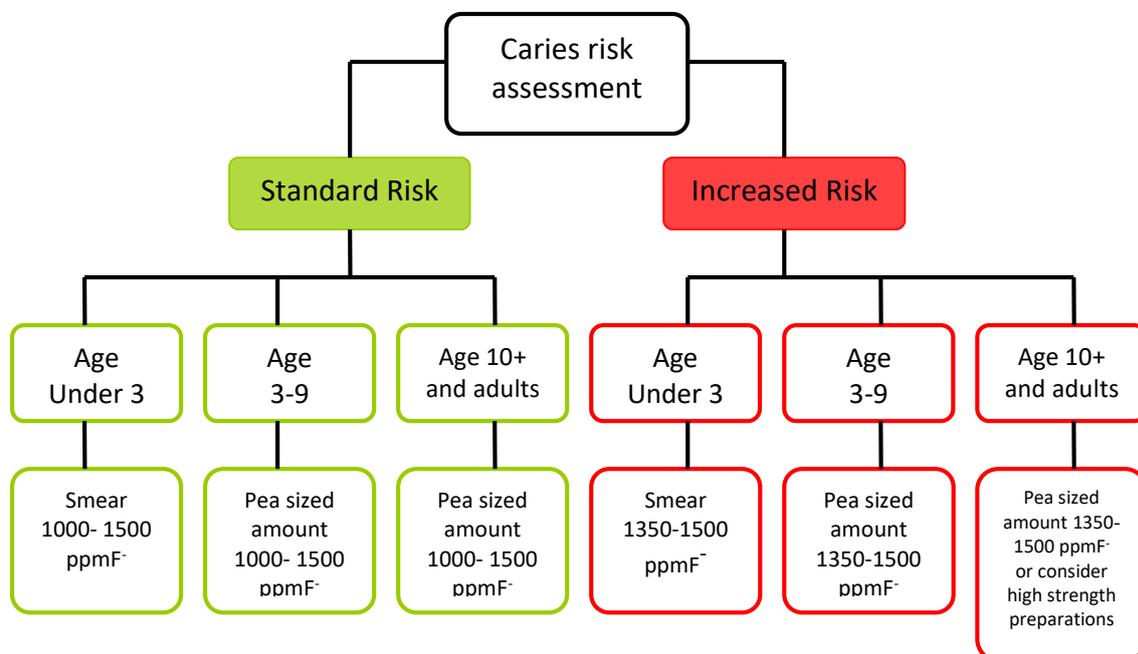
Previous dental decay
Socio-economic deprivation
High dietary intake of sugar
Low fluoride exposure
Specific medical conditions
Additional needs (learning disability)
Dry mouth

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 adults and children over the age of 8 where there is an increased caries risk and they are able to safely use the product.
- The recommended fluoride content for a mouth-rinse is 225ppmF⁻ (0.05%) and it should be used at a different time from toothbrushing⁷.

Fluoride Toothpaste

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



- Toothbrushing should be completed before bed 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

Where there is an increased caries risk, which cannot be modified or addressed via other methods, and there is active disease dental practitioners can consider prescribing high strength fluoride toothpastes as an adjunctive treatment.

Whilst stewardship in prescribing is normally related to antimicrobials, the principles of ensuring prescriptions are clinically justifiable and optimise benefit for the patient apply to any prescribed medicine. This includes considering the optimal strength and dosage to prescribe, the number of items issued commensurate with the frequency of monitoring/review of the medicine.

NHS prescriptions must only be issued for patients undergoing NHS care, if a private patient requires medicine as part of their treatment plan, this must be issued as a private prescription. Further guidance on private prescriptions can be found in the SDCEP guidance⁶.

Two variations of high strength toothpaste are available for prescription under the NHS- 2800ppmF⁻ and 5000ppmF⁻. These medicines should only be prescribed by a dental professional on a short term basis, with regular review as indicated by the individual patient caries risk assessment and additional support to modify other caries risk factors such as diet.

Dental professionals must consider the level of clinical need when deciding which strength of toothpaste to prescribe. Prescribing 2800ppmF⁻ in the first instance to observe the response to treatment would be appropriate. An alternative to prescribing high strength preparations may be to increase the frequency of brushing with 1350-1500ppmF⁻.

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 adults and children over the age of 9, therefore it is important to monitor the frequency and amount of toothpaste used.

Age	High Strength Toothpaste Recommendation
0-9	Do not prescribe
10-15	2800ppmF ⁻
16+	2800ppmF ⁻ or 5000ppmF ⁻ where clinically justifiable

References:

1. National Dental Inspection Programme (NDIP) 2020, Report of the 2020 detailed inspection programme of Primary 1 children and the basic inspection of Primary 1 and Primary 7 children; October 2020. <https://publichealthscotland.scot/publications/national-dental-inspection-programme/national-dental-inspection-programme-school-year-2019-to-2020/>
2. Scottish Intercollegiate Guidelines Network (SIGN). Dental Interventions to prevent caries in children. SIGN publication number 138; March 2014. <https://www.sign.ac.uk/our-guidelines/dental-interventions-to-prevent-caries-in-children/>
3. Department of Health. Delivering better oral health: an evidence based toolkit for prevention. Public Health England; November 2021. <https://www.gov.uk/government/publications/delivering-better-oral-health-an-evidence-based-toolkit-for-prevention>
4. Scottish Dental Clinical Effectiveness Programme (SDCEP). Prevention and Management of Caries in Children; May 2018. <https://www.sdcep.org.uk/published-guidance/caries-in-children/>
5. Independent report: Statement on water fluoridation from the UK Chief Medical Officers; September 2021. <https://www.gov.uk/government/publications/water-fluoridation-statement-from-the-uk-chief-medical-officers/statement-on-water-fluoridation-from-the-uk-chief-medical-officers>
6. A Joint Statement on Water Fluoridation by the Consultants in Dental Public Health and Chief Administrative Dental Officers and the Directors of Dentistry in Scotland; November 2021. <https://www.scottishdental.org/statement-on-water-fluoridation/>
7. Scottish Dental Clinical Effectiveness Programme (SDCEP). Drug Prescribing for Dentistry; June 2021. <https://www.sdcep.org.uk/published-guidance/drug-prescribing/>