

# Delivering Better Oral Health

An evidence-based toolkit for prevention

Second Edition





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An evidence-based toolkit for prevention



British Association for the  
Study of Community Dentistry



**DH INFORMATION READER BOX**

<b>Policy</b>	Estates
HR / Workforce	Commissioning
Management	IM & T
Planning /	Finance
Clinical	Social Care / Partnership Working

<b>Document Purpose</b>	Best Practice Guidance
<b>Gateway Reference</b>	12231
<b>Title</b>	Delivering Better Oral Health: An evidence- based toolkit for prevention
<b>Author</b>	DH/British Association for the Study of Community Dentistry
<b>Publication Date</b>	2nd edition April 2009
<b>Target Audience</b>	General Dental Practitioners, Salaried Primary Care Dentists
<b>Circulation List</b>	PCT CEs, Care Trust CEs, Directors of PH, Consultants in Dental Public Health, PCT Directors of Commissioning, Regional Directors of Commissioning, Regional Directors of Public Health, SHA Dental Public Health Advisors
<b>Description</b>	Guidance to all members of the dental team on evidence based prevention . PCTs will wish to note this guidance when commissioning dental services.
<b>Cross Ref</b>	Choosing Better Oral Health: An Oral Health Plan for England
<b>Superseded Docs</b>	1st edition published on 26th September 2007
<b>Action Required</b>	N/A
<b>Timing</b>	<b>N/A</b>
<b>Contact Details</b>	Sue Gregory Dental and Eye Care Division Directorate of Commissioning and System Management New Kings Beam House 22 Upper Ground London SE1 9BW  020 7633 4247
<b>For Recipient's Use</b>	

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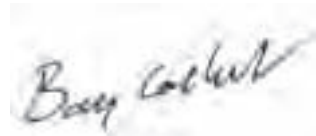
# Introduction to the second edition

The first edition of *Delivering Better Oral Health: An evidence-based toolkit for prevention* was published in September 2007 and one copy sent to all general dental practices. This second edition is published in response to a number of drivers:

- A commitment to regularly review the content of the document to ensure compliance with up-to-date evidence.
- Numerous requests to the Department of Health for additional hard copies to support wider use in general dental practice.
- The World Class Commissioning document *Improving dental access, quality and oral health* (January 2009), which advises primary care trusts to place a stronger focus on commissioning preventive services.
- Significant progress has been made to enable appropriately trained dental nurses to apply fluoride varnish.

The fundamental messages of the first edition have not been changed, but there have been updates to the lists of toothpaste fluoride content and sugar-free medicines. There are also amendments to the dietary and alcohol sections.

On this occasion the document will be sent to all general dental practitioners, and we hope that dentists will share it with their teams in order to improve delivery of prevention within the dental practice.



Barry Cockcroft  
Chief Dental Officer (England)

# Foreword



In 2005 the Department of Health published *Choosing Better Oral Health: An Oral Health Plan for England*. In this we pointed out that dental health in England had improved considerably over the last 30 years, which would in turn bring about radical changes in the way in which dentistry is delivered in this country, moving it away from a service focused mainly on treatment to a more preventive model of care.

We recognise, however, that at present there are still inequalities in dental health across the country. Primary care trusts (PCTs) will be helping to resolve this by implementing population-based preventive programmes and also by commissioning appropriate NHS primary dental services to meet local oral health needs. Dentists have a duty to provide preventive advice where they judge it clinically appropriate for patients who attend for dental treatment, but local agreements can be used to specify particular preventive approaches and indicators.

In order to support both PCTs and dental teams in the delivery of a more preventive approach, the Department of Health commissioned the British Association for the Study of Community Dentistry (BASCD) to develop this simplified prevention guide for primary dental care, designed for use by all the dental team within the surgery setting.

A key element of this guidance is the simplicity of the messages. Too often in the past, there has been confusion and a lack of consistency in the preventive information offered to patients. The toolkit provides clear and simple messages that are based firmly on the current available

research evidence endorsed by a wide range of specialist organisations who were consulted during its development.

We have a real opportunity to eradicate dental decay as a public health issue in England within the next 30 years. Effective prevention is key to this and must now be the cornerstone of modern primary dental care. There are, however, still gaps in our current knowledge and the evidence base is constantly being added to. This guidance should therefore be seen as the first version of an evolving series that is designed to support PCTs and dental teams in the delivery of evidence-based preventive dental care to both children and adults.

I should like to thank BASCD, and in particular Sue Gregory and members of the working group which she chaired, for their intensive hard work in producing this document. I should also like to thank all the other individuals and organisations who were consulted and who have contributed to this guidance, which I strongly commend to you.

A handwritten signature in black ink that reads "Barry Cockcroft". The signature is written in a cursive style.

Barry Cockcroft  
Chief Dental Officer (England)

# Introduction

Many dental teams have asked for clear guidance about the advice they should give and the actions they should take to be sure they are doing the best for their patients in preventing disease. A number of well respected experts have come together to produce this document, which aims to provide practical, evidence-based guidance to help you to promote oral health and prevent oral disease in your patients. It is intended for use throughout dental care services.

Recent thinking suggests that **all** patients should be given the benefit of advice regarding their general and dental health, not just those thought to be 'at risk'. This guide lists the advice and actions that should be provided for all patients to maintain good oral health.

For those patients about whom there is greater concern (eg those with medical conditions, those with evidence of active disease and those for whom the provision of reparative care is problematic) there is guidance about increasing the intensity of generally applied actions.

There is currently a drive for greater emphasis on prevention of ill-health and reduction of inequalities of health by the giving of advice and application of evidence-informed actions. It is important that the whole dental team, as well as other healthcare workers, give consistent messages and that those messages are up to date and correct.

The information displayed in the following tables is supported by evidence of varying levels of strength. Where the evidence level is weak this does **not** mean that the intervention does not work but simply that the current evidence supporting it is not of the highest quality. Each piece of advice or suggested intervention is presented with an evidence grade. This represents the highest grade of evidence that currently exists for the advice or intervention listed in the model. As new evidence emerges this will be assessed and reflected in amendments to the toolkit and the supporting information accompanying it.

The grades of evidence given are as follows:

Grade	Strength of evidence (EB)
<b>I</b>	Strong evidence from at least one systematic review of multiple, well-designed, randomised control trial/s.
<b>II</b>	Strong evidence from at least one properly designed, randomised control trial of appropriate size.
<b>III</b>	Evidence from well-designed trials without randomisation, single group studied pre and post intervention, cohort, time series of matched, case-control studies.
<b>IV</b>	Evidence from well-designed, non-experimental studies from more than one centre or research group.
<b>V</b>	Opinions of respected authorities, based on clinical evidence, descriptive studies or reports of expert committees.



## Section 1

# Summary Guidance for Primary Care Dental Teams

## Prevention of caries in children aged 0–6 years

	Advice to be given	EB	Professional intervention	EB
<b>Children aged up to 3 years</b>	<ul style="list-style-type: none"> <li>Breast feeding provides the best nutrition for babies</li> <li>From six months of age infants should be introduced to drinking from a cup, and from age one year feeding from a bottle should be discouraged</li> <li>Sugar should not be added to weaning foods</li> <li>Parents should brush or supervise toothbrushing</li> <li>Use only a smear of toothpaste containing no less than 1,000 ppm fluoride</li> <li>As soon as teeth erupt in the mouth brush them twice daily</li> <li>The frequency and amount of sugary food and drinks should be reduced and, when consumed, limited to mealtimes. Sugars should not be consumed more than four times per day</li> <li>Sugar-free medicines should be recommended</li> </ul>	<p>I</p> <p>III</p> <p>V</p> <p>V</p> <p>I</p> <p>IV</p> <p>III</p> <p>III</p>		
<b>All children aged 3–6 years</b>	<ul style="list-style-type: none"> <li>Brush last thing at night and on one other occasion</li> <li>Brushing should be supervised by an adult</li> <li>Use a pea-sized amount of toothpaste containing 1,350–1,500 ppm fluoride</li> <li>Spit out after brushing and do not rinse</li> <li>The frequency and amount of sugary food and drinks should be reduced and, when consumed, limited to mealtimes. Sugars should not be consumed more than four times per day</li> <li>Sugar-free medicines should be recommended</li> </ul>	<p>I</p> <p>V</p> <p>V, I</p> <p>IV</p> <p>III</p> <p>III</p>	<ul style="list-style-type: none"> <li>Apply fluoride varnish to teeth twice yearly (2.2% F<sup>-</sup>)</li> </ul>	I
<b>Children giving concern (eg those likely to develop caries, those with special needs)</b>	<p>All advice as above, plus:</p> <ul style="list-style-type: none"> <li>Use a smear or pea-sized amount of toothpaste containing 1,350–1,500 ppm fluoride</li> <li>Ensure medication is sugar free</li> <li>Give dietary supplements containing sugar and glucose polymers at mealtimes when possible (unless clinically directed otherwise) and not last thing at night. Parents should be made aware of the cariogenicity of supplements and ways of minimising risk</li> </ul>	<p>I</p> <p>I</p> <p>V</p>	<ul style="list-style-type: none"> <li>Apply fluoride varnish to teeth 3–4 times yearly (2.2% F<sup>-</sup>)</li> <li>Prescribe fluoride supplement and advise re maximising benefit</li> <li>Reduce recall interval</li> <li>Investigate diet and assist to adopt good dietary practice</li> <li>Ensure medication is sugar free or given to minimise cariogenic effect</li> </ul>	<p>I</p> <p>II</p> <p>V</p> <p>III</p> <p>III</p>

## Prevention of caries in children aged from 7 years and young adults

	Advice	EB	Professional intervention	EB
<b>All children and young adults</b>	<ul style="list-style-type: none"> <li>• Brush twice daily</li> <li>• Brush last thing at night and on one other occasion</li> <li>• Use fluoridated toothpaste (1,350 ppm fluoride or above)</li> <li>• Spit out after brushing and do not rinse</li> <li>• The frequency and amount of sugary food and drinks should be reduced and, when consumed, limited to mealtimes. Sugars should not be consumed more than four times per day</li> </ul>	<p>I V I IV</p> <p>III</p>	<ul style="list-style-type: none"> <li>• Apply fluoride varnish to teeth twice yearly (2.2% F<sup>-</sup>)</li> </ul>	I
<b>Those giving concern (eg those likely to develop caries, those undergoing orthodontic treatment, those with special needs)</b>	<p>All the above, plus:</p> <ul style="list-style-type: none"> <li>• Use a fluoride mouthrinse daily (0.05% NaF) at a different time to brushing</li> </ul>	I	<ul style="list-style-type: none"> <li>• Fissure seal permanent molars with resin sealant</li> <li>• Apply fluoride varnish to teeth 3–4 times yearly (2.2% F<sup>-</sup>)</li> <li>• For those 8+ years with active caries prescribe daily fluoride rinse</li> <li>• For those 10+ years with active caries prescribe 2,800 ppm toothpaste</li> <li>• For those 16+ years with active disease consider prescription of 5,000 ppm toothpaste</li> <li>• Investigate diet and assist adoption of good dietary practice</li> </ul>	<p>I I I I I III</p>

## Prevention of caries in adults

	Advice	EB	Professional intervention	EB
<b>All adult patients</b>	<ul style="list-style-type: none"> <li>• Brush twice daily with fluoridated toothpaste</li> <li>• Use fluoridated toothpaste with at least 1,350 ppm fluoride</li> <li>• Brush last thing at night and on one other occasion</li> <li>• Spit out after brushing and do not rinse</li> <li>• The frequency and amount of sugary food and drinks should be reduced and, when consumed, limited to mealtimes. Sugars should not be consumed more than four times per day</li> </ul>	<p>I I V IV</p> <p>III</p>		
<b>Those giving concern to their dentist (eg with obvious current active caries, dry mouth, other predisposing factors, those with special needs)</b>	<p>All the above, plus:</p> <ul style="list-style-type: none"> <li>• Use a fluoride mouthrinse daily (0.05% NaF) at a different time to brushing</li> </ul>	I	<ul style="list-style-type: none"> <li>• Apply fluoride varnish to teeth twice yearly (2.2% F-)</li> <li>• For those with obvious active coronal or root caries prescribe daily fluoride rinse</li> <li>• For those with obvious active coronal or root caries prescribe 2,800 or 5,000 ppm fluoride toothpaste</li> <li>• Investigate diet and assist adoption of good dietary practice</li> </ul>	<p>I I II III</p>

## Prevention of periodontal disease – to be used in addition to caries prevention

Risk level	Advice	EB	Professional intervention	EB	
<b>All adolescents and adults</b>	<ul style="list-style-type: none"> <li>Brush teeth systematically twice daily with either:                             <ul style="list-style-type: none"> <li>– a manual brush with a small head and round end filaments, a compact, angled arrangement of long and short filaments and a comfortable handle</li> </ul>                             OR                             <ul style="list-style-type: none"> <li>– a powered toothbrush with an oscillating/rotating head</li> </ul> </li> <li>Do not smoke</li> <li>Consider using toothpastes containing:                             <ul style="list-style-type: none"> <li>– triclosan with copolymer, or</li> <li>– triclosan with zinc citrate</li> </ul>                             to improve levels of plaque control</li> <li>Toothpastes with stannous fluoride may reduce gingivitis</li> <li>Clean interdentally using interdental brushes or floss</li> <li>Maintain good dietary practices in line with <i>The Balance of Good Health</i></li> </ul>	<b>V</b>	<ul style="list-style-type: none"> <li>Demonstrate methods of improving plaque control</li> <li>Investigate possible improved control of predisposing systemic conditions</li> </ul>	<b>V</b>	
		<b>V</b>		<ul style="list-style-type: none"> <li>Take a history of tobacco use, give brief advice to users and signpost to local Stop Smoking Service</li> </ul>	<b>V</b>
		<b>I</b>	<ul style="list-style-type: none"> <li>Investigate diet and assist adoption of good dietary practice based on <i>The Balance of Good Health</i></li> </ul>		<b>V</b>
		<b>III</b>			
		<b>I</b>			
		<b>II</b>			
<b>V</b>					
<b>V</b>					
<b>Children with difficulty maintaining oral hygiene; with relevant medical conditions; wearing orthodontic appliances</b>	<ul style="list-style-type: none"> <li>Brush systematically twice daily with either:                             <ul style="list-style-type: none"> <li>– a manual brush with a small head and round end filaments, a compact, angled arrangement of long and short filaments and a comfortable handle</li> </ul>                             OR                             <ul style="list-style-type: none"> <li>– a powered toothbrush with an oscillating/rotating head</li> </ul> </li> <li>Maintain good dietary practices</li> </ul>	<b>V</b>	<ul style="list-style-type: none"> <li>Demonstrate methods of improving plaque control</li> <li>Investigate diet and assist adoption of good dietary practice</li> </ul>	<b>V</b>	
		<b>V</b>			
		<b>I</b>			
		<b>V</b>			

## Prevention of oral cancer

Risk level	Advice	EB	Professional intervention	EB
<b>All adolescents and adults</b>	• Do not smoke	III	<ul style="list-style-type: none"> <li>• Take a history of tobacco use, give brief advice to users and signpost to local Stop Smoking Service</li> <li>• Signpost to local alcohol misuse support services</li> </ul>	
	• Do not use smokeless tobacco (eg paan, chewing tobacco, gutkha)	III		V
	• Reduce alcohol consumption to moderate (recommended) levels	IV, III		V
	• Maintain good dietary practices in line with <i>The Balance of Good Health</i>	V		
	• Increase fruit and vegetable intake to at least five portions per day	III		

## Erosion

Currently the evidence is based upon laboratory studies or observational studies. There are a number of epidemiological studies showing that soft drinks are associated with erosion and the World Health Organization recommends limitation of these products. However, no evidence could be found that measured the effectiveness of providing preventive advice in a clinical setting. Until such evidence emerges guidance will be provided in Section 8.

With acknowledgement for the material in the above tables to Mrs JT Duxbury, Miss MA Catleugh, Professor RM Davies and Dr GM Davies.

## Section 2

# Principles of toothbrushing for oral health

## 2

# Principles of toothbrushing for oral health

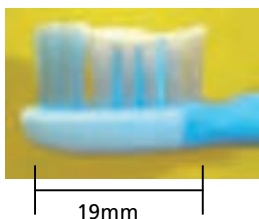
Major dental conditions of caries and periodontal disease can both be reduced by regular toothbrushing with fluoride toothpaste.

The fluoride in toothpaste serves to prevent, control and arrest caries.

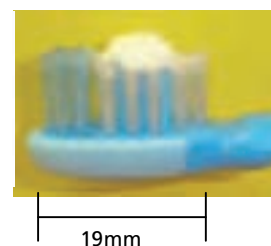
The physical removal of plaque reduces the inflammatory response of the gingivae and its sequelae. Some toothpastes contain ingredients which also reduce the initiation and progression of periodontal breakdown.

There is evidence to suggest that the preventive action of toothbrushing can be maximised if the following principles are followed:

- Brushing should start as soon as the first deciduous tooth erupts.
- Brushing should occur twice daily – clean teeth last thing at night before bed and at least one other time each day.
- Children under 3 years should use a toothpaste containing no less than 1,000 ppm fluoride.
- Children under 3 years should use no more than a smear of toothpaste (a thin film of paste covering less than three-quarters of the brush) and must not be permitted to eat or lick toothpaste from the tube.



- Family fluoride toothpaste (1,350–1,500 ppm fluoride) is indicated for maximum caries control for all children except those who cannot be prevented from eating toothpaste. Advice must be given about adult supervision and the small amounts to be used.
- Children between 3 and 6 years should use no more than a pea-sized amount of toothpaste.



- Children need to be helped or supervised by an adult when brushing until at least 7 years of age and must not be permitted to eat or lick toothpaste from the tube.
- Rinsing with lots of water after brushing should be discouraged – spitting out excess toothpaste is preferable.
- The patient's existing method of brushing may need to be modified, emphasising the need to systematically clean all tooth surfaces. No particular technique has been shown to be better than another (**V**).
- Disclosing tablets can help to indicate areas that are being missed.



- Brushing is more effective with a small-headed toothbrush with soft (ISO 8627:1987 standard 1–3), round-ended filaments, a compact, angled arrangement of long and short filaments and a handle which is comfortable **(V)**.
- Powered brushes with an oscillating/rotating action remove plaque more effectively and studies show they reduce gingivitis when used for over 3 months. No other powered designs were as consistently superior to manual brushes **(I)**.

## Section 3

# Increasing fluoride availability

- **Toothpaste – list of present products by fluoride concentration level**
- **Fluoride varnish**
- **Prescribing high concentration fluoride toothpaste**
- **Use of fluoride supplements – prescribing information**
- **Fluoride rinses**

# 3

## Increasing fluoride availability

Currently approximately 10% of England's population, or about 6 million people, benefit from a water supply where the fluoride content either naturally or artificially is at the optimum level for dental health. In terms of population coverage, the West Midlands is the most extensively fluoridated area, followed by parts of the North East of England. In 2003 the law was changed enabling strategic health authorities to require water companies to fluoridate water supplies providing there is support from the local population following consultation.

**The risk of dental fluorosis is higher from the use of topical fluorides in fluoridated areas. This is why in the earlier section, particular emphasis is put on the need to help and supervise toothbrushing for children up to at least age 7 and use a very small volume of toothpaste for children under 3 years.**

Many people in non-fluoridated areas incorrectly think that their water supply is fluoridated and it is important that they are aware of the true fluoride status of their supplies. If in doubt, information can be obtained from their water supplier by quoting the residential postcode.

There follows information on how fluoride availability can be increased to improve oral health.

## Types of over-the-counter toothpastes by fluoride concentration level

This table is provided for information only and should not be seen as an endorsement of any particular brand by the Department of Health.

It is fairly comprehensive but may not represent a complete list of all brands of toothpaste available in the UK and was correct at the time of press. **Updated March 2009.**

Higher concentration fluoride gives better protection against decay		Low concentration or no fluoride – limited/no protection against decay	
1,350–1,500 ppm	1,000–1,300 ppm	550 ppm or less	No fluoride
<p>ALDI – Dentitex-whitening, sensitive</p> <p>Aquafresh – Complete Care, Fresh &amp; Minty, Mild &amp; Minty, Multi-active, Big Teeth, Little Teeth, Extreme Clean, Clean &amp; Whitening, Clean Pure Breath, Iso-active foaming gel fresh mint, citrus mint, whitening</p> <p>ASDA – Total Care sensitive, Mintfresh, Gum Health, Essential Care cool Sensation, Whitening, Great Stuff, Little Teeth, Big Teeth</p> <p>Boots – Expert Sensitive, Sensitive Whitening, Stain Control</p> <p>Corsodyl – daily gum and toothpaste</p> <p>Colgate – Sensitive Fresh Stripe, Whitening, Multi Protection, Enamel Protect, Sensation Deep Clean, Total**, Total Advanced Fresh**, Total Plus Whitening**, Total Professional Weekly Clean**, Total Fresh Stripe**, Triple Action, Cool Stripe. Time Control, Whitening, 2 in 1, Advanced Whitening, Anti Tartar &amp; Whitening, Cavity Protection, Fresh Confidence, Herbal, Max Fresh, Max White, Oxygen</p> <p>Crest – Freshmint, Mildmint, Tartar Control, 5Complete</p> <p>LIDL – Dentalux, Complex 3 and 5</p> <p>Janina – Opale Whitening Paste</p> <p>Macleans – Freshmint, Coolmint, Total Health, Total Health Whitening, Confidence with iso-active technology</p> <p>Marks and Spencer – Protect</p> <p>Mentadent SR</p> <p>Morrison's – Total Care Whitening, Sensitive</p> <p>Sainsbury's – Total Care – Freshmint, Sensitive, Whitening</p> <p>Sensodyne – Total Care Gentle Whitening, Total Care Gel, Total Care F, Total Care Extra Fresh, Gum Protection, Pronamel, Pronamel Gentle Whitening, Pronamel for Children, Multi-action with iso-active technology, Whitening with iso-active technology</p> <p>Signal</p> <p>Superdrug – Total care Freshmint, Coolmint, Whitening Freshmint</p> <p>Tesco – Total Care Freshmint, Coolmint stripe, Care Sensitive, Sensitive Whitening, Gum Health, Extreme Whitening, Gentle Whitening, Sensitive Daily Care, Sensitive Enamel Protection, Cool Mint Stripe, Steps 6+, banana/strawberry.</p>	<p>Aquafresh – Multi-action + Whitening, Milk Teeth</p> <p>Arm &amp; Hammer – Enamel Care, Sensitive, Whitening, Advanced Whitening</p> <p>ASDA – Smart Price, Smarty Pants Softmint, Bad Boy Softmint</p> <p>Beverly Hills Formula – Breath Confidence, Natural White</p> <p>Boots – Smile Fresh Stripe, Totalcare, Whitening</p> <p>Clinomyn – Smoker's, Clean and Polish</p> <p>Colgate – Ultrabrite, Smiles 6+</p> <p>Co-op – Freshmint</p> <p>Ikea toothpaste</p> <p>Kingfisher – Fennel with Fluoride</p> <p>Macleans – Whitening, Ice Whitening Gel, White and Shine</p> <p>Mentadent P **</p> <p>Morrison's Kids – Sparkly Strawberry, Milk Teeth, Freshmint, Minty Gel Stripe</p> <p>Oral B Stages</p> <p>OralDent – OralClens, Mint</p> <p>Pearl Drops – Toothpolish, Daily Shine, Smoker's, Icemint Whitening</p> <p>Sainsbury's – Whitening, Basics, Freshmint, Mildmint, Minty Stripe, Sensitive</p> <p>Sensodyne Mint</p> <p>Superdrug – Junior Softmint, Strawberry Glitter Gel, Tutti Frutti</p> <p>Tesco – Care Freshmint, Whitening, Steps 0–2, 2–6.</p>	<p>Blanx – Classic, Sensitive, Anti-Ageing, Intense Stain Removal</p> <p>Boots – Kids 2–6, 6+</p> <p>Colgate – Smiles 2–6</p> <p>Crest for Kids, Milk Teeth</p> <p>Oral B Stages Retardex</p> <p>Sainsbury's Sparkling Gel</p>	<p>Blanx</p> <p>Biorepair – Total Protection, Sensitivity Control, Night Protect</p> <p>Boots Fluoride Free</p> <p>Eucryl Powder</p> <p>Euthymol</p> <p>Kingfisher Aloe Vera, Tea Tree</p> <p>LIDL Dentalux for Kids</p> <p>Periproducts – Sensishield</p> <p>Sensodyne Original</p> <p>Tom's of Maine – Fennel and Spearmint</p>

\*\*Toothpastes containing Triclosan with co-polymer or zinc citrate.

## Fluoride varnish

Fluoride varnish is one of the best options for the application of topical fluoride to teeth in the absence of water fluoridation. High quality evidence of the caries-preventive effectiveness of fluoride varnish in both permanent and primary dentitions is available. A number of systematic reviews conclude that twice-yearly applications produce a mean caries increment reduction of 33% in the primary dentition and 46% in the permanent. The evidence also supports the view that varnish application can arrest existing lesions on the smooth surfaces of primary teeth and roots of permanent teeth. Much of the evidence of effectiveness is derived from studies which have used sodium fluoride 22,600 ppm varnish for application.

Fluoride varnish for use as a topical treatment has a number of practical advantages. It is well accepted and considered to be safe. Further, the application of fluoride varnish is simple and requires minimal training. While a thorough prophylaxis is not essential prior to application, removal of gross plaque is advised.

Care should be used to ensure that only a small quantity of varnish is applied to teeth, particularly for young children. No more than 0.25 ml should be dispensed. Teeth should be dried with cotton rolls or a triple syringe. The varnish should be carefully applied with a microbrush to pits, fissures and approximal surfaces of primary and permanent teeth. The patient should be advised to avoid eating, drinking or toothbrushing for 30 minutes after application and eat only soft foods in the following four hours.

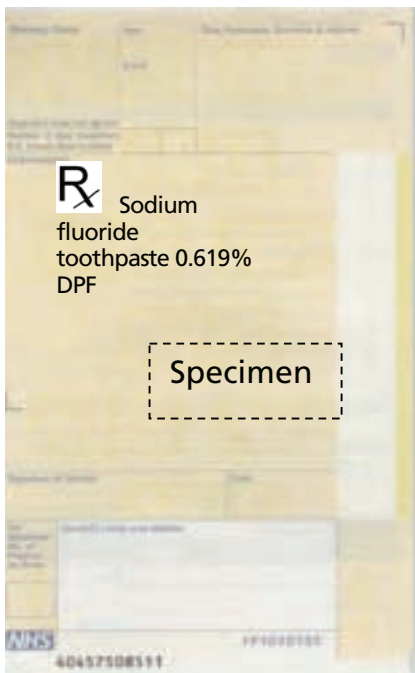
The use of Duraphat is contraindicated in patients with ulcerative gingivitis and stomatitis. There is a very small risk of allergy to one component of Duraphat (colophony), so for children who have a history of allergic episodes requiring hospital admission, including asthma, varnish application is contraindicated.

Types of fluoride varnish	Concentration of fluoride	
Fluor protector	8,000 ppm	0.8% F <sup>-</sup>
Lawefluor	22,600 ppm	2.2% F <sup>-</sup>
Duraphat	22,600 ppm	2.2% F <sup>-</sup>
Bifluorid	56,300 ppm	5.6% F <sup>-</sup>

### Prescribing high concentration fluoride toothpaste

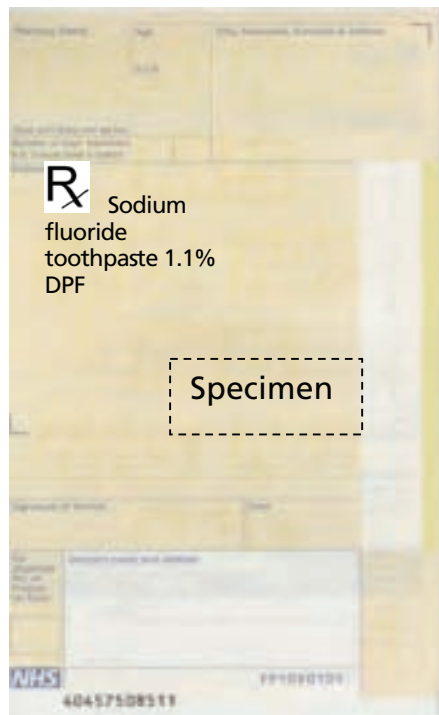
#### *Sodium fluoride 2,800 ppm toothpaste*

Indications: high caries risk patients aged 10 years and over.



#### *Sodium fluoride 5,000 ppm toothpaste*

Indications: patients aged 16 years and over with high caries risk, present or potential for root caries, dry mouth, orthodontic appliances, overdentures, those with highly cariogenic diet or medication.



### Use of fluoride supplements – prescribing information

It is recognised that the use of fluoride tablets requires compliance by families and this may include under and over-use. There is a risk of fluorosis if children aged under 6 years take over the advised dose. With this in mind, other sources of fluoride may be preferable and therefore be considered first.

### Advised prescribing regime for fluoride tablets

Age of child	Water content level		
	≤ 0.3 ppm	0.3–0.7 ppm	> 0.7 ppm
6 months – 3rd birthday	250 µg daily (need to halve 500 µg tablet )	Not advised	Not advised
3–6th birthday	500 µg daily	250 µg daily (need to halve 500 µg tablet )	
6 and over	1 mg daily	500 µg daily	

Tablets are available in 500 µg and 1 mg fluoride levels.

Tablets should be given at a different time to tooth brushing and allowed to dissolve slowly in the mouth to maximise their topical effect.

Pharmacy Stamp    Age    Title, Forename, Surname & Address

D.o.B.

Please don't stamp over age box  
Number of days' treatment  
N.B. Ensure dose is stated  
Endorsements

**Rx** Sodium fluoride  
tablets 1.1 mg  
(F- 500 µg)  
One tablet to be  
sucked or chewed daily

Specimen

Signature of Dentist    Date

For dispenser  
No. of  
Prescrip.  
on form    Dentist's name and address

NHS    40457508511    FP10D0105

Pharmacy Stamp    Age    Title, Forename, Surname & Address

D.o.B.

Please don't stamp over age box  
Number of days' treatment  
N.B. Ensure dose is stated  
Endorsements

**Rx** Sodium fluoride  
tablets 2.2 mg  
(F-1mg)  
One tablet to be  
sucked or chewed daily

Specimen

Signature of Dentist    Date

For dispenser  
No. of  
Prescrip.  
on form    Dentist's name and address

NHS    40457508511    FP10D0105

### Fluoride rinses

These can be prescribed for patients aged 8 years and above, for daily or weekly use, in addition to twice daily brushing with toothpaste containing at least 1,350 ppm fluoride. Rinses require patient compliance and should be used at a different time to toothbrushing to maximise the topical effect, which relates to frequency of availability.

Pharmacy Stamp	Age	Title, Forename, Surname & Address
	D.o.B	
<small>Please don't stamp over age box Number of days' treatment N.B. Ensure dose is stated Endorsements</small>		
<p><b>R<sub>x</sub></b> Sodium fluoride mouthwash 0.2% Rinse for 1 minute and spit out, use weekly</p>		
<div style="border: 2px dashed black; padding: 5px; display: inline-block;">Specimen</div>		
Signature of Dentist		Date
For dispenser No. of Prescns. on form	Dentist's name and address	
<b>NHS</b>	FP10D0105	
40457508511		

Pharmacy Stamp	Age	Title, Forename, Surname & Address
	D.o.B	
<small>Please don't stamp over age box Number of days' treatment N.B. Ensure dose is stated Endorsements</small>		
<p><b>R<sub>x</sub></b> Sodium fluoride mouthwash 0.05% Rinse for 1 minute and spit out, use daily</p>		
<div style="border: 2px dashed black; padding: 5px; display: inline-block;">Specimen</div>		
Signature of Dentist		Date
For dispenser No. of Prescns. on form	Dentist's name and address	
<b>NHS</b>	FP10D0105	
40457508511		



## Section 4

### Healthy eating advice

- Dietary advice to prevent dental caries
- General good dietary practice guidelines
- Diet diary

# 4

## Healthy eating advice

Healthy eating advice should routinely be given to patients to promote good oral and general health. Key dietary messages to prevent dental caries are summarised below and the main message is to reduce both the amount and frequency of consuming foods that have added sugar.

### Dietary advice to prevent dental caries

Consensus recommendations advocate the following to prevent dental caries:

- The frequency and amount of sugars should be reduced. Consumption of sugary foods should be restricted to mealtimes.
- Limit consumption of foods and drinks with added sugars to a maximum of four times a day.
- Sugars (excluding those naturally present in whole fruit) should provide less than 10% of total energy in the diet or less than 60 g per person per day. Note that for young children this will be around 33 g per day.

Most sugars in the diet are contained in processed and manufactured foods and drinks.

Potentially cariogenic foods and drinks include:

- sugar and chocolate confectionery
- cakes and biscuits
- buns, pastries, fruit pies
- sponge puddings and other puddings
- table sugar
- sugared breakfast cereals
- jams, preserves, honey
- ice cream
- fruit in syrup

- fresh fruit juices
- sugared soft drinks
- sugared, milk-based beverages
- sugar-containing alcoholic drinks
- dried fruits
- syrups and sweet sauces.

It is important to recognise that honey, fresh fruit juice and dried fruit all contain cariogenic sugars.

### General good dietary practice guidelines

#### *Key facts for eating well*

Below are some of the main healthy eating messages aimed at helping people make healthier dietary choices.

The two most important elements of a healthy diet are:

- eating the right amount of food relative to how active a person is;
- eating a range of foods in line with *The Balance of Good Health* (Food Standards Agency, 2001), which in turn is based on the Government's guidelines for a healthy diet.

A healthy balanced diet contains foods from all the major food groups including lots of fruit and vegetables; starchy staple foods such as wholemeal bread and wholegrain cereals; some protein-rich foods such as lean meat, fish, eggs and lentils; and some dairy foods, preferably of the lower fat variety.



### *Key message 1 – Base meals on starchy foods*

Starchy foods such as bread, cereals, rice, pasta and potatoes are an important part of a healthy diet. Wholegrain varieties of starchy food are best as they contain more nutrients and help us to feel fuller for longer. Starchy foods should make up about a third of the food we eat. They are a good source of energy and the main source of a range of nutrients and fibre in our diet.

### *Key message 2 – Eat lots of fruit and vegetables*

At least five portions of a variety of fruit and vegetables should be eaten every day; different fruit and vegetables contain different combinations of fibre, vitamins and other nutrients. Eating more fruit and vegetables

could help to reduce the risk of the two main killers in this country – heart disease and cancer. Most people know they should be doing this but still don't. Eating five can be easy. One portion of fruit and vegetables is 80 g, which roughly equals a handful.

### *Key message 3 – Eat more fish*

Two portions of fish, including a portion of oily fish, eg salmon, sardines, mackerel and tuna, should be eaten each week. The choice can be from fresh, frozen or canned – but canned and smoked fish can be high in salt. Fish is an excellent source of protein and contains many vitamins and minerals.

### *Key message 4 – Cut down on saturated fat and sugar*

To stay healthy we need some fat in our diets. There are two main types of fat:

- Saturated fat – having too much can increase the amount of cholesterol in the blood, which increases the chance of developing heart disease. Foods containing this include: fatty meat, pâté, meat pies, sausages, hard cheese, butter, lard, full fat milk, and biscuits, cakes and pastry.
- Unsaturated fat – having unsaturated fat instead of saturated fat lowers blood cholesterol. Good sources include: vegetable oils (such as sunflower, rapeseed and olive oil), oily fish, avocados, nuts and seeds.

**Reducing the amount and frequency of sugary food intake can reduce dental caries and could help control weight.**

### *Key message 5 – Eat less salt – no more than 6 g a day*

Three-quarters (75%) of the salt we eat comes from processed food, such as some breakfast cereals, soups, sauces, bread, biscuits and ready meals. Eating too much salt can raise blood pressure. People with high blood pressure are three times more likely to develop heart disease or have a stroke than people with normal blood pressure.

### *Key message 6 – Drink plenty of water*

We should be drinking about six to eight glasses (1.2 litres) of water, or other fluids, every day to stop us getting dehydrated.

There are specific dietary recommendations for infants and young children – see [www.eatwell.gov.uk/agesandstages](http://www.eatwell.gov.uk/agesandstages)

Source of Key messages: Food Standards Agency – [www.eatwell.gov.uk](http://www.eatwell.gov.uk)

DH Change4Life – [www.nhs.uk/change4life](http://www.nhs.uk/change4life)

### **Diet diary**

The diet modification approach should be used in conjunction with actions to increase fluoride availability. When considering the desired outcome of controlling or preventing caries, currently the evidence suggesting the effectiveness of efforts to change diet is not as strong as the evidence supporting increasing fluoride use. However, this should not prevent attempts at diet modification.

When giving dietary advice to reduce consumption of sugars it is essential to assess the overall pattern of eating to establish the following information:

- the number of intakes of food and drinks per day;
- the number of intakes that contain sugars (**excluding** those found in whole fruit) and how many were consumed between normal mealtimes;
- whether any intakes containing sugars were taken within one hour of bedtime.

*Instructions on completing a diet diary*

Please write down everything you/your child eats or drinks and the time during the day when consumed – this will help us to advise you on how best to improve your diet. Choose one weekend day and two others.

Please bring the diet diary with you to the next appointment.

**Example of a diet diary**

TIME	DAY 1	DAY 2	DAY 3

## Section 5

# Identifying sugar-free medicines

- Sugar (sucrose)-free oral liquid medicines – listed in therapeutic groups

# 5

## Identifying sugar-free medicines

The following information has been adapted from the National Pharmacy Association leaflet – *Sugar in Medicines*.

The table contains information about the sugar (fructose/glucose/sucrose) content of branded oral liquid medicines, both over-the-counter and prescription-only medicines.

Products that do not contain fructose, glucose or sucrose are listed as being sugar free. Preparations containing hydrogenated glucose syrup, Lycasin, maltitol, sorbitol or xylitol are also listed as sugar free, since there is evidence that they are non-cariogenic. Artificial sweeteners are also listed.

The list is provided to assist clinical teams to identify where sugar-free alternatives exist; it is recognised that dental surgeons cannot prescribe all of the medications listed.

To prescribe a sugar-free alternative, 'sugar free' should be stipulated on the prescription to ensure the specific version is dispensed. This is denoted as SF.

### Sugar (sucrose)-free oral liquid medicines – listed in therapeutic groups

<b>Analgesics and anti-inflammatory medicines</b> Calpol 6+ suspension Calpol Paediatric suspension Medinol Over Six suspension* Medinol Paediatric suspension* Medinol Under Six suspension* Medised for children* MST Continus suspension Nurofen for Children* Panadol suspension Relifex suspension	<b>Antacids</b> Altacite Plus suspension Asilone Antacid liquid Asilone suspension Entrocalm suspension Gastrocote liquid Gaviscon range Gaviscon Advance liquid Gaviscon Infant sachets Kolanticon gel Maalox suspension Maalox Plus suspension Mucogel suspension Phillips Milk of Magnesia liquid
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\* Contains Lycasin and/or maltitol – considered to be non-cariogenic.

<p><b>Antibiotics and antivirals</b></p> <p>Amoxil syrup  Amoxil Paediatric suspension  Augmentin suspension  Augmentin Duo suspension  Baxan suspension  Ciproxin suspension  Colomycin syrup  Distaclor suspension  Epivir oral solution  Flagyl S suspension  Floxapen syrup  Fucidin suspension  Keflex suspension  Magnapen syrup  Orelox Paediatric suspension  Retrovir syrup  Rifadin syrup  Septrin Adult suspension  Septrin Paediatric suspension  Velosef syrup  Zerit oral suspension  Zinnat suspension  Zithromax suspension  Zovirax suspension  Zovirax Double Strength suspension</p>	<p><b>Antidiarrhoeals</b></p> <p>Dioralyte sachets  Dioralyte Relief sachets  Imodium syrup  Junior KAO-C suspension</p> <p><b>Antiemetics and antispasmodics</b></p> <p>Fybogel Mebeverine sachets  Infacol drops  Maxolon syrup  Maxolon Paediatric liquid</p> <p><b>Antifungals</b></p> <p>Diflucan oral suspension  Fungilin oral suspension  Noxafil suspension  Nystan oral suspension  Sporanox liquid</p> <p><b>Antihistamines</b></p> <p>Clarityn allergy syrup  Neoclaritin syrup  Phenergan elixir*  Piriteze Allergy syrup once a day  Piriton syrup  Vallergan syrups  Zirtek Allergy solution</p>
<p><b>Cardiovascular drugs</b></p> <p>Tenormin syrup  Zolvera oral solution</p>	<p><b>Central nervous system and anticonvulsants</b></p> <p>Emeside syrup  Epanutin suspension  Epilim liquid  Haldol liquid  Heminevrin syrup  Molipaxin liquid  Priadel liquid  Prozac liquid  Risperdal liquid  Sanomigran elixir*  Seroxat liquid  Somnite suspension  Stemetil syrup  Stelazine syrup  Symmetrel syrup  Temazepam elixir  Zarontin</p>

\* Contains Lycasin and/or maltitol – considered to be non-cariogenic.



<p><b>Cough and cold remedies</b></p> <p>Actifed multi-action chesty coughs  Actifed multi-action dry coughs  Beechams All in One syrup  Benylin chesty coughs original  Benylin chesty coughs non drowsy  Benylin children's dry coughs  Benylin children's tickly coughs  Benylin children's chesty coughs  Benylin children's coughs and colds  Benylin children's night coughs  Benylin cough and congestion  Benylin dry coughs original  Benylin dry coughs non drowsy  Benylin tickly coughs non drowsy  Cough nurse night time liquid  Covonia Bronchial Balsam  Covonia cold and flu formula  Covonia Night Time*  Day Nurse liquid  Galcodine linctus  Galcodine Paediatric linctus  Galsud linctus  Hills Balsam Adult chesty cough  Hills Balsam Adult Dry cough  Hills Balsam Children Chesty</p>	<p><b>Cough and cold remedies <i>continued</i></b></p> <p>Lemsip cough chesty  Lemsip cough dry  Meltus Baby cough linctus  Meltus decongestant  Meltus Family chesty coughs honey and lemon  Meltus Junior chesty cough and catarrh  Meltus Junior dry cough with congestion  Night Nurse liquid  Pavacol D liquid  Potters catarrh mixture  Potters lightening cough mixture  Potters vegetable cough remover  Pulmo Baily cough expectorant  Robitussin Chesty cough*  Robitussin Chesty cough with congestion*  Robitussin Dry cough*  Sudafed non drowsy linctus  Sudafed non drowsy decongestant elixir  Sudafed non drowsy expectorant  Tixylix Baby syrup*  Tixylix Chesty Cough linctus  Tixylix Cough and Cold linctus  Tixylix Daytime*  Tixylix Night Time (sugar free)*  Venos range</p>
<p><b>Laxatives</b></p> <p>Codanthramer suspension  Codanthramer Forte suspension  Docusol adult solution  Docusol paediatric solution  Duphalac solution  Fybogel sachets  Movicol sachets  Movicol paediatric plain  Regulose solution  Senokot syrup</p>	<p><b>Respiratory products</b></p> <p>Bricanyl syrup  Mucodyne</p> <p><b>Ulcer-healing drugs</b></p> <p>Tagamet  Zantac syrup</p>

\* Contains Lycasin and/or maltitol – considered to be non-cariogenic.

<b>Vitamin and mineral supplements</b>	<b>Vitamin and mineral supplements <i>continued</i></b>
Calcium Sandoz syrup Cytacon liquid Effico tonic Haliborange Multivitamin liquid Halycitrol vitamin emulsion Ketovite liquid Minadex syrups Niferex elixir Orovite 7 sachets Osteocare liquid	Sanatogen Baby vitamin syrup Seven Seas Cod Liver Oil liquid with Lemon Seven Seas Cod Liver Oil and Orange syrup Seven Seas Extra High Strength Cod Liver Oil liquid Seven Seas High Strength Cod Liver Oil liquid Seven Seas Traditional Cod Liver Oil liquid Seven Seas Vitamin and Mineral tonic Sytron elixir
<b>Miscellaneous products</b>	<b>Miscellaneous products <i>continued</i></b>
Biorphen liquid Broflex syrup Bumetanide liquid Cam mixture Carnitor Paediatric solution Cellcept oral suspension Corsodyl Mint mouthwash Cymalon sachets Cystopurin granules Daktarin oral gel Difflam Oral rinse Ditropan elixir Dyspamet suspension Eldepryl syrup Frusol Oral solution*	J Collis Browne's mixture Labiton tonic Lioresal liquid Lyflex oral solution Neoral suspension Nivaquine syrup Potters Echinacea elixir Pripsen sachets Rapamune oral solution Reminyl oral solution Salazopyrin suspension Vermox suspension Wellvone suspension Zofran syrup

\* Contains Lycasin and/or maltitol – considered to be non-cariogenic.

## Section 6

# Improving periodontal health

- Mechanical plaque control
- Toothpaste types/brands
- Mouthrinses
- Conditions that predispose to periodontal disease

# 6

## Improving periodontal health

The following advice and support should be given to patients presenting with or at risk of periodontal disease.

### Mechanical plaque control

Teeth should be brushed twice daily **(V)**.

Modify the patient's existing method of brushing, emphasising the need to systematically clean all tooth surfaces **(V)**.

Disclosing tablets can help to indicate areas that are being missed.

Help the patient to select a small headed toothbrush with soft, round ended filaments, a compact, angled arrangement of long and short filaments and a handle that is comfortable for them **(V)**.

Powered brushes with an oscillating/rotating action may be advised **(I)**.

For interdental cleaning, the choice of aid (floss, tape, sticks, single tufted brush) should be based on the size of the interproximal or interradicular spaces and the ability and motivation of the individual **(V)**.

### Toothpaste types/brands

Evidence suggests that toothpastes containing triclosan in combination with a copolymer or with zinc citrate are more effective than a fluoride toothpaste in improving plaque control and gingival health **(I)**.

### Mouthrinses

Chlorhexidine mouthrinses, either 10 ml of 0.2% or 15 ml of 0.12%, are very effective in improving plaque control and gingival health when used as an adjunct to tooth brushing **(II)**. They are useful for short periods when an individual is unable to clean due to acute problems or incapacity.

Other mouthrinses containing essential oils or cetylpyridinium chloride are less effective than chlorhexidine.

### Conditions that predispose to periodontal disease

The following conditions predispose patients to periodontal disease:

- diabetes
- genetic disorders
- Down's syndrome
- blood dyscrasias/haematological disorders
- pregnancy
- long-term smoking
- medication – Epanutin, cyclosporin, nifedipine.

## Section 7

# Stop smoking guidance

# 7

## Stop smoking guidance

Stop smoking guidelines recommend that all health professionals, including dental team members, should check the smoking status of their patients at least once a year, and should advise all smokers to stop smoking (Fiore et al, 2000; West et al, 2000; NICE, 2006). Motivated smokers who want help to quit should be referred to the local NHS Stop Smoking Service. The guide *Smokefree and Smiling: helping dental patients to quit tobacco* was sent to every dental practice in England as part of the Smokefree programme and is the key reference document for dental practices.

In the vast majority of cases, dental teams will only be involved in delivering brief advice to smokers. The key elements in brief advice include the following:

- All patients should have their smoking status (current, ex-, never smoked) established and checked at regular intervals. This information should be recorded in the patient's clinical notes **(V)**.
- All smokers and those chewing tobacco should be advised of the value of stopping and the risks to their health of continuing. The advice should be clear, firm and personalised. It is essential that the message to all smokers is complete cessation **(V)**.
- All smokers should be advised on the value of attending their local NHS Stop Smoking Services for specialised help in stopping. Smokers who are interested and motivated to stop should be referred to these services **(V)**.
- In a small minority of cases, dental patients who are smokers and want to quit, but who do not wish to attend the NHS Stop Smoking Services, should be offered appropriate assistance to stop by the dental team. Only dental team members who have received accredited training in tobacco cessation should offer this assistance **(V)**.

## Section 8

# Alcohol misuse support

- The extent of the problem?
- The impact on health?
- The recommended limits of alcohol drinking?
- What is a unit of alcohol?
- What is the Government's programme?
- How may alcohol support services be accessed?

## What is the extent of the problem?

The *Alcohol Needs Assessment Research Project* (published in November 2005) found a high level of need across categories of drinkers:

- 38% of men and 16% of women (age 16–64) are drinking above low-risk levels, indicating they have an alcohol use disorder (26% overall), which is equivalent to approximately 8.2 million people in England.
- Within this, 32% of men and 15% of women are hazardous or harmful alcohol users (23% overall), which is equivalent to 7.1 million people in England.

## What is the impact on health?

- In 2000, between 15,000 and 22,000 deaths in England and Wales were related with alcohol misuse. Alcohol-related liver disease accounts for over 4,500 of these – a 90% increase over the past decade.
- Alcohol-related deaths in England and Wales rose throughout the 1980s and 1990s. ONS data show there were 6,580 alcohol-related deaths in England and Wales in 2003 compared with 5,970 in 2001, continuing this rise.
- Smoking and alcohol drinking are the main causal factors of oral cancer. When both products are used the risks are multiplied rather than added.
- People who smoke two or more packets of cigarettes and drink four or more units of alcohol a day have a 35 times increased risk of developing oral cancer compared with those who neither smoke nor drink more than two units of alcohol a day.

## What are the recommended limits of alcohol drinking?

- In May 2007, Government secured an agreement with industry to include health and unit information on most alcohol labels by the end of 2008. Labels with unit information help people keep an eye on how much they are drinking, allowing them to monitor their alcohol intake more easily. The current voluntary labelling agreement expects that labels will include the wording: 'Drinking moderately can reduce the risk of alcohol-related illness including oral cancer.'

The recommended limits are:

- up to 2 to 3 units a day for a woman
- up to 3 to 4 units a day for a man
- 2 days free from alcohol for everyone.

## What is a unit of alcohol?

One unit of alcohol is 10 ml (1 cl) by volume, or 8 g by weight, of pure alcohol. For example, one unit of alcohol is about equal to:

- half a pint of ordinary strength beer, lager, or cider (3–4% alcohol by volume), or
- a small pub measure (25 ml) of spirits (40% alcohol by volume), or
- a standard pub measure (50 ml) of fortified wine such as sherry or port (20% alcohol by volume).
- there are one and a half units of alcohol in:
  - a small glass (125 ml) of ordinary strength wine (12% alcohol by volume), or
  - a standard pub measure (35 ml) of spirits (40% alcohol by volume).



A more accurate way of calculating units is as follows. The percentage alcohol by volume (% abv) of any drink equals the number of units in one litre of that drink. For example:

- Strong beer at 6% abv has six units in one litre. If you drink half a litre (500 ml) – just under a pint – then you have had three units.
- Wine at 12% abv has 12 units in one litre. If you drink a quarter of a litre (250 ml) – two small glasses – then you have had three units.

Wines also have different strengths as indicated in the chart below.

Strength	8%	9%	10%	11%	12%	13%	14%
125ml glass	1	1.1	1.25	1.4	1.5	1.6	1.75
175ml glass	1.4	1.6	1.75	1.9	2.1	2.3	2.5
250ml glass	2	2.25	2.5	2.75	3	3.25	3.5
750 ml bottle	6	6.75	7.5	8.25	9	9.75	10.5

### What is the Government's programme?

The Alcohol Harm Reduction Strategy for England, which was published on 15 March 2004, includes a series of measures aimed at achieving a long-term change in attitudes to irresponsible drinking and behaviour. These include:

- Making the sensible drinking message easier to understand and apply.
- Providing better information for consumers, both on products and at the point of sale.
- Providing alcohol education in schools that can change attitudes and behaviour.
- The Communities and Local Government Supporting People Outcome Framework requires local authorities to collect appropriate outcomes information on client needs-based support plans, which includes people with alcohol problems who are homeless or who are having difficulty in relation to sustaining their accommodation or managing to live independently as a result of their alcohol problems.

- In November 2005, *Alcohol Misuse Interventions: guidance on developing a local programme of improvement* was published. Aimed at local health organisations, local authorities and others seeking to work with the NHS to tackle alcohol harm, it gives practical guidance on how to improve early identification of harmful drinking, provide brief advice and referral to specialist treatment for those who need it.

### How may alcohol support services be accessed?

- **Alcoholics Anonymous** is an informal society of more than 2 million recovered alcoholics in the United States, Canada and other countries. These men and women meet in local groups, which range in size from a handful in some localities to many hundreds in larger communities.  
[www.alcoholics-anonymous.org.uk/](http://www.alcoholics-anonymous.org.uk/)
- **Alcohol Concern** is the national agency on alcohol misuse which works to reduce the incidence and costs of alcohol-related harm and to increase the range and quality of services available to people with alcohol-related problems. It provides information on specialist and non-specialist service providers helping to tackle alcohol problems at a local level in a directory which may be accessed at <http://servicesdirectory.alcoholconcern.org.uk/viewservice.jsp?id=5612>
- **National helpline:**  
Drinkline – 0800 917 8282

#### Websites

- [www.drinkaware.com](http://www.drinkaware.com)
- [www.howsyourdrink.org.uk](http://www.howsyourdrink.org.uk)
- [www.knowyourlimits.gov.uk/stay\\_safe/index.html](http://www.knowyourlimits.gov.uk/stay_safe/index.html)
- [www.downyourdrink.org.uk](http://www.downyourdrink.org.uk)
- [www.al-anonuk.org.uk](http://www.al-anonuk.org.uk)
- [www.adfam.prg.uk](http://www.adfam.prg.uk)

## Section 9

### Prevention of erosion

- Advice that may be given to prevent erosion progressing
- Professional action that may be taken
- Food and drink associated with erosion
- Extrinsic sources of acid

# 9

## Prevention of erosion

A number of epidemiological studies show that soft drinks are associated with erosion and the World Health Organization recommends that the amount and frequency of intake of soft drinks and juices should be limited. Worldwide, there is a need for more systematic population-based studies on the prevalence of dental erosion, using a standard index of measurement.

### Advice that may be given to prevent erosion progressing

- Use toothpaste containing 1,450 ppm fluoride twice daily.
- Avoid frequent intake of acidic foods or drinks – keep them to mealtimes.
- Do not brush immediately after eating or drinking acidic food or drinks.
- Do not brush immediately after vomiting.

### Professional action that may be taken

- Sensitive investigation of diet to identify source of acid, which may be from:
  - vomiting or gastric reflux;
  - frequent intake of acidic food or drinks.
- Investigation of habits which exacerbate effects of erosion:
  - brushing after acid intake;
  - brushing after vomiting;
  - acid intakes last thing at night;
  - retaining acid drinks in mouth before swallowing.
- Give tailored, specific advice for each individual patient.

### Food and drink associated with erosion

There is likely to be individual variation in response to erosive effects of acids. The variation may be due to quantity and quality of saliva, features of the pellicle, individual habits with regard to frequency of eating and drinking, timing, oral swishing, frothing and retention and toothbrushing after acid intake.

### Extrinsic sources of acid

Laboratory studies have shown that the following types of drinks, foods and medication have erosive potential:

- drinks containing citric acid – eg orange, grapefruit, lemon, blackcurrant;
- carbonated drinks;
- alcopops and designer drinks;
- cider;
- white wine;
- fruit teas (but not camomile);
- some sports drinks which contain acid;
- acidic fresh fruit – lemons, oranges, grapefruit – that are consumed with high frequency;
- pickles;
- chewable vitamin C tablets, aspirin, some iron preparations.

# Section 10

## Supporting references

Table of key references to support statements

Caries in children 0–6 years	
Breastfeeding is best for babies	Allen J, Hector D. 2005. Benefits of breast feeding. <i>N S W Public Health Bull.</i> 16(3–4): 42–46. <a href="http://www.health.nsw.gov.au/public-health/phb/HTML2005/marchapril05html/article3p42.htm">www.health.nsw.gov.au/public-health/phb/HTML2005/marchapril05html/article3p42.htm</a>
	Kramer MS, Kakuma R. 2007. Optimal duration of exclusive breastfeeding. <i>Cochrane Database of Systematic Reviews.</i> Issue 2. Art. no: CD003517. DOI: 10.1002/14651858.CD003517.
	Valaitis R, Hesch R, Passarelli C et al. 2000. A systematic review of the relationship between breastfeeding and early childhood caries. <i>Can J Public Health.</i> 91(6):411–417.
From 6 months of age infants should be introduced to drinking from a cup and from 1 year feeding from a bottle should be discouraged	Department of Health. 1994. <i>Weaning and the weaning diet.</i> Report on health and social subjects, 45. HMSO, London.
Babies should be weaned onto sugar-free food	Department of Health. 1994. <i>Weaning and the weaning diet.</i> Report on health and social subjects, 45. HMSO, London.
Parents should help with toothbrushing	Hinds K, Gregory JR. 1995. <i>National Diet and Nutrition Survey; children aged 1.5 to 4.5 years.</i> The Stationery Office, London.
As soon as teeth erupt in the mouth brush them twice daily	Hinds K, Gregory JR. 1995. <i>National Diet and Nutrition Survey; children aged 1.5 to 4.5 years.</i> The Stationery Office, London.

Use only a smear of toothpaste	DenBesten P, Ko HS. 1996. Fluoride levels in whole saliva of preschool children after brushing with 0.25 g (pea-sized) as compared to 1.0g (full-brush) of a fluoride dentifrice. <i>Pediatr Dent.</i> 18(4): 277–280.
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	Duckworth RM, Moore SS. 2001. Salivary fluoride concentrations after overnight use of toothpastes. <i>Caries Res.</i> 35: 285.
Brushing should be supervised by an adult	Hinds K, Gregory R. 1995. <i>National Diet and Nutrition Survey; children aged 1.5 to 4.5 years.</i> The Stationery Office, London.
Use a pea-sized amount or smear of fluoridated toothpaste – no less than 1,000 ppm fluoride (unless the child cannot be prevented from eating toothpaste)	Marinho VC, Higgins JP, Sheiham A, Logan S. 2003. Fluoride toothpastes for preventing dental caries in children and adolescents. <i>Cochrane Database of Systematic Reviews.</i> Issue 2. Art. no: CD002278 DOI: 10.1002/14651858.
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Apply fluoride varnish to teeth twice yearly	Marinho VCC, Higgins JPT, Logan S, Sheiham A. 2007. Fluoride varnishes for preventing dental caries in children and adolescents. <i>Cochrane Database of Systematic Reviews.</i> Issue 2. Art. no: CD002279. DOI: 10.1002/14651858.
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Apply fluoride varnish to teeth 3–4 times yearly (2.2% NaF = 22,600 ppm fluoride)	Marinho VCC, Higgins JPT, Logan S, Sheiham A. 2007. Fluoride varnishes for preventing dental caries in children and adolescents. <i>Cochrane Database of Systematic Reviews.</i> Issue 2. Art. no: CD002279. DOI: 10.1002/14651858.
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Reduce recall interval	National Collaborating Centre for Acute Care. 2004. <i>Dental Recall: Recall interval between routine dental examinations.</i> National Institute for Clinical Excellence, London.
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Prevention of caries in children aged from 7 years and adults	
Brush twice daily	Marinho VC, Higgins JP, Sheiham A, Logan S. 2003. Fluoride toothpastes for preventing dental caries in children and adolescents. <i>Cochrane Database of Systematic Reviews</i> . Issue 2. Art. no: CD002278 DOI: 10.1002/14651858.
Brush last thing at night and on one other occasion	Duckworth RM, Moore SS. 2001. Salivary fluoride concentrations after overnight use of toothpastes. <i>Caries Res</i> . 35: 285.
Use fluoridated toothpaste (1,450 ppm fluoride)	Marinho VC, Higgins JP, Sheiham A, Logan S. 2003. Fluoride toothpastes for preventing dental caries in children and adolescents. <i>Cochrane Database of Systematic Reviews</i> . Issue 2. Art. no: CD002278 DOI: 10.1002/14651858.
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Spit out after brushing and do not rinse	Chestnutt IG, Schafer F, Jacobson AP, Stephen KW. 1998. The influence of toothbrushing frequency and post-brushing rinsing on caries experience in a caries clinical trial. <i>Community Dent Oral Epidemiol</i> . 26(6): 406–411.
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Eat a well-balanced diet with controlled amount and frequency of sugar intake	World Health Organization. 2003. <i>Diet, Nutrition and Prevention of Chronic Diseases</i> . Report of a Joint WHO/FAO Expert Consultation. World Health Organization, Geneva.
Apply fluoride varnish to teeth twice yearly (2.2% NaF = 22,600 ppm fluoride)	Marinho VCC, Higgins JPT, Logan S, Sheiham A. 2007. Fluoride varnishes for preventing dental caries in children and adolescents. <i>Cochrane Database of Systematic Reviews</i> . Issue 2. Art. no: CD002279. DOI: 10.1002/14651858.
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For those 8+ years with active caries prescribe daily fluoride rinse	Marinho VCC, Higgins JPT, Logan S, Sheiham A. 2007. Fluoride mouthrinses for preventing dental caries in children and adolescents. <i>Cochrane Database of Systematic Reviews</i> . Issue 2. Art. no: CD002284. DOI: 10.1002/14651858.
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# BASCD Working Group

## Membership of the Group

Chair:	Sue Gregory	BASCD President (2006/07)
Secretary:	Semina Makhani	SpR in Dental Public Health
Collator:	Gill Davies	Senior Dental Officer, Manchester PCT
	Nigel Carter	Chief Executive, British Dental Health Foundation
	Baldeesh Chana	Faculty of General Dental Practice (UK)
	Tom Dyer	General Dental Practitioner
	Tony Jenner	Deputy CDO, Department of Health
	Rosemary Khan	Dental Care Professional Representative
	Keith Milsom	Oral Health Unit, University of Manchester
	Rowena Pennycate	British Dental Association
	Jerry Read	Department of Health
	Derek Richards	Director, Centre for Evidence Based Dentistry
	Richard Watt	Professor of Dental Public Health, UCL

*Competing interests of group members:* Richard Watt was paid a fee by GlaxoSmithKline for a lecture on smoking cessation, the content was not related to toothpaste. Gill Davies received a fee for presenting the Colgate lecture at the National Dental Hygienists' Conference. No other competing interests have been declared.

*We would also like to acknowledge advice and input from:*

Dr Stephen Fayle, President, British Society of Paediatric Dentistry  
Prof Paula Moynihan, Professor of Nutrition and Oral Health, University of Newcastle  
Dr Sheela Reddy, Principal Nutritionist, Department of Health  
Mr Nigel Fray, Policy Advisor, National Alcohol Strategy, Department of Health

# Prevention in Practice

Using 'Delivering Better Oral Health'



I am delighted to introduce this interactive learning package which aims to help dental teams put the Department of Health's *Delivering Better Oral Health* evidence-based toolkit into practice by showing how it can be done for real in a practice setting and within the current NHS contract. Preventing disease and improving health is the most important thing we can do with and for our patients and it's something that all the dental team can actively engage with. It's a great privilege to have been involved with developing this educational material which has been designed to provide two hours of verifiable CPD. You will see how one practice has adopted new ways of working, learn about the difficulties that individuals in a practice might face when changing to an evidence-based approach to prevention and learn more about how to carry out effective short interventions with patients. I do hope you enjoy using this material which will be updated regularly as new versions of the toolkit are published.

**Helen Falcon**

**Postgraduate Dental Dean, NHS Education South Central; Vice Chair, COPDEND, Oxford, March 2009.**

## This programme covers

### 01 | Introduction

This topic provides a guide to the programme and the toolkit, with users able to see actual interviews from a dentist and a dental care professional who have successfully implemented the toolkit into their practice.

### 02 | Professional interventions

This topic explores new ways of working from the toolkit and takes the user through a simulated dental team practice meeting where common barriers to implementing new procedures are addressed.

### 03 | Self care

This topic enables members of the dental team to deliver evidence-based oral health messages taken from the toolkit by guiding the user through several scenarios.

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After watching you will be able to:

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- promote behaviour change in patients to improve self care.

This programme supports the delivery of a more preventive approach to oral health.

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<b>Requirements</b>	This programme requires a PC with a minimum of Windows 2000/ME/XP/Vista, Pentium III 500MHz 128MB RAM and a soundcard  Mac users need to have OSX or above
<b>Duration</b>	The programme will take about two hours to complete

For more information contact Smile-on | 020 7400 8989 | [info@smile-on.com](mailto:info@smile-on.com)



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283540 2p 28K Apr 09 (MRP) 293890  
Produced by COI for the Department of Health

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