

## **Diabetes Pathway**

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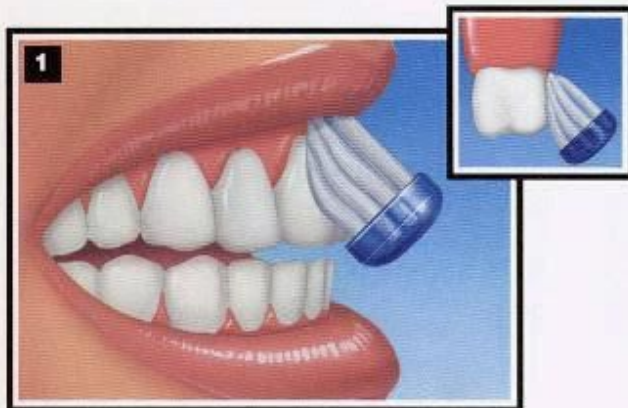
# Adults Caries Risk Assessment

	Low Risk	Moderate Risk	High Risk
<b>Contributing Conditions</b>			
Fluoride exposure	Yes	No	
Sugary Foods or Drinks	Primarily at mealtimes		Frequent or prolonged between meal exposures/day
Caries experience of mother, caregiver and/or other siblings.	No carious lesions in last 24 months	Carious lesions in last 7-23 months	Carious lesions in last 6 months
<b>General Health Conditions</b>			
Special Health Care Needs	No	Yes	
Chemo/Radiotherapy	No		Yes
Eating Disorders	No	Yes	
Medications reducing salivary flow	No	Yes	
Drug/Alcohol Abuse	No	Yes	
<b>Clinical Conditions</b>			
Carious Lesions or Restorations	No new within previous 36 months	1 or 2 new lesions in last 36 months	3 or more new lesions in last 36 months
Visible plaque	No	Yes	
Exposed root surface	No	Yes	
Dental/Orthodontic Appliances	No	Yes	
Severe Dry Mouth (Xerostomia)	No		Yes

## How To Brush

Modified Bass brushing technique:

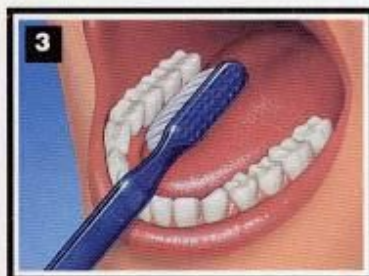
- Hold the head of the toothbrush horizontally against your teeth with the bristles part-way on the gums
- Tilt the brush head to about a 45-degree angle, so the bristles are pointing under the gum line.
- Move the toothbrush in very short horizontal strokes so the tips of the bristles stay in one place, but the head of the brush waggles back and forth. Or use tiny circular motions. This allows the bristles to slide gently under the gum. Do this for about 20 strokes. This assures that adequate time will be spent cleaning away as much plaque as possible. Note: this is a very gentle motion. In healthy gums, this should cause no pain. Brushing too vigorously or with large strokes can damage gum tissue.
- Roll or flick the brush so that the bristles move out from under the gum toward the biting edge of the tooth. This helps move the plaque out from under the gum line.
- Repeat for every tooth, so that all tooth surfaces and gum lines are cleaned.
- For the insides of your front teeth, where the horizontal brush position is cumbersome, hold the brush vertically instead. Again, use gentle back and forth brushing action and finish with a roll or flick of the brush toward the biting edge.
- To clean the biting or chewing surfaces of the teeth, hold the brush so the bristles are straight down on the flat surface of the molars.
- Gently move the brush back and forth or in tiny circles to clean the entire surface. Move to a new tooth or area until all teeth are cleaned.
- You can clear even more bacteria out of your mouth by brushing your tongue. With your toothbrush, brush firmly but gently from back to front. Do not go so far back in your mouth that you gag. Rinse again.



Place bristles along the gumline at a 45° angle. Bristles should contact both the tooth surface and the gumline.



Gently brush the outer tooth surfaces of 2-3 teeth using a vibrating back, forth & rolling motion. Move brush to the next group of 2-3 teeth and repeat.



Maintain a 45° angle with bristles contacting the tooth surface and gumline. Gently brush using back, forth & rolling motion along all of the inner tooth surfaces.



Tilt brush vertically behind the front teeth. Make several up & down strokes using the front half of the brush.



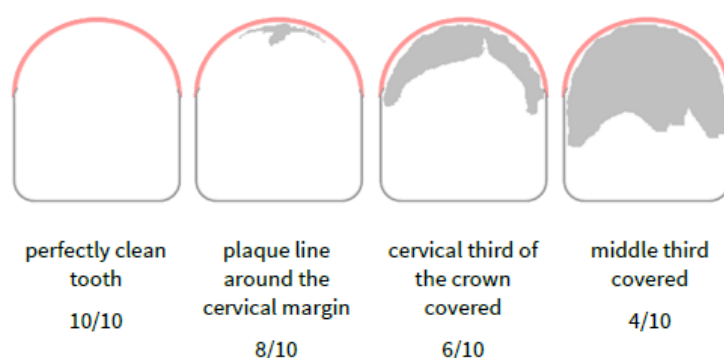
Place the brush against the biting surface of the teeth & use a gentle back & forth scrubbing motion. Brush the tongue from back to front to remove odor-producing bacteria.





### 3.4.8 Assessing toothbrushing

Gingival health is a useful indicator of tooth cleaning over time. Assessing and recording levels of visible plaque at each examination, and sharing this information with the child and their parent/carer, will help reinforce the importance of effective toothbrushing. An example of a quick method of recording plaque levels, and presenting the information in terms the child will understand, is to give marks out of 10 as follows.



The worst score in each sextant is recorded, for example:

8/10	6/10	8/10
8/10	6/10	8/10

It is also important to assess the surface of open carious lesions for plaque that is visible or evident when an instrument is gently drawn across the surface of the lesion, particularly if considering managing the lesion with a prevention-alone approach (Section 10.1).

- Assess whether the gingiva appear healthy or whether there is inflammation indicative of poor plaque removal.
- Consider recording plaque scores at each examination, particularly if the child is assessed as at increased caries risk.
- Record the presence of plaque on the surface of open carious lesions at recall visits for lesions where the prevention-alone management strategy has previously been selected (see Section 10.1).

.....

[illegible][illegible]

[illegible]

[illegible]

**Notes/Additional Items**

# Eatwell Guide

## Check the label on packaged foods

Each serving (150g) contains

Energy	Fat	Saturates	Sugars	Salt
1046kJ 250kcal	3.0g LOW	1.3g LOW	34g HIGH	0.9g MED
13%	4%	7%	38%	15%

of an adult's reference intake

Typical values (as sold) per 100g: 697kJ/ 167kcal

Choose foods lower in fat, salt and sugars

Use the Eatwell Guide to help you get a balance of healthier and more sustainable food. It shows how much of what you eat overall should come from each food group.



Water, lower fat milk, sugar-free drinks including tea and coffee all count.

Limit fruit juice and/or smoothies to a total of 150ml a day.

Eat at least 5 portions of a variety of fruit and vegetables every day



Choose wholegrain or higher fibre versions with less added fat, salt and sugar



Beans, pulses, fish, eggs, meat and other proteins  
Eat more beans and pulses, 2 portions of sustainably sourced fish per week, one of which is oily. Eat less red and processed meat



Dairy and alternatives  
Choose lower fat and lower sugar options



Choose unsaturated oils and use in small amounts



Eat less often and in small amounts

Per day 2000kcal 2500kcal = ALL FOOD + ALL DRINKS



# Very Brief Advice on Smoking for Dental Patients



***NCSCT***

**Authors:** Sophia Papadakis and Andy McEwen

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## What is Very Brief Advice on Smoking?

Very Brief Advice on Smoking (VBA) is a simple piece of advice that is designed to be used opportunistically in less than 30 seconds in almost any situation with a smoker. What may be surprising is that you do not advise smokers to stop, and you do not ask how much they smoke or even if they want to stop.

The figure overleaf shows the three elements to VBA: establishing and recording smoking status (**ASK**); advising on how to stop (**ADVISE**) and offering help (**ACT**).

Offering VBA is the single most cost effective and clinically proven preventative action a healthcare professional can take<sup>1</sup> and it is important to keep giving advice at every opportunity, as smokers may take several attempts to stop smoking successfully.<sup>2</sup>

In addition, by referring a patient to a local stop smoking service, they are four times more likely to stop smoking.<sup>3</sup> Research shows that 95% of patients expect to be asked about smoking and a short intervention can make all the difference.<sup>4,5</sup>

## Very Brief Advice on Smoking

30 seconds to save a life

### ASK

#### AND RECORD SMOKING STATUS

*"Do you smoke?"*

### ADVISE

#### ON THE MOST EFFECTIVE WAY OF QUITTING

*"Did you know that the best way of stopping smoking is with a combination of medication and specialist support. If you are interested I can refer you to our local friendly stop smoking service that many of my patients have found useful?"*

### ACT

#### ON PATIENT'S RESPONSE

#### INTERESTED

Give information.  
Prescribe medication and refer to local stop smoking service.  
Patients are four times more likely to quit with support

**REFER to local stop smoking service**

#### NOT INTERESTED

*"It's your choice of course. Help will always be available. Do let me know if you change your mind."*

**REASSESS at future visits**

## The important role of dental team in smoking cessation

**Dental professionals have a unique opportunity to address smoking with patients in a manner that will make a difference and won't damage your relationship with patients.**

Brief advice from a dentist or member of the dental team has been shown to increase your patient's motivation to quit and can double a patient's success with quitting.<sup>6</sup>

Addressing tobacco use with patients should be a priority for all members of the dental team and will result in improved oral health and outcomes for patients. It is important for dental professionals to be aware of simple techniques for motivating your patients who smoke to quit and informing them of the availability of evidence-based treatments such as quit smoking medications and counselling support.

### How does smoking affect the mouth?<sup>7</sup>

- Tar deposited in the mouth causes discolouration to teeth enamel, a coated tongue and halitosis
- Alterations in taste and smell
- Impairment of salivary function, immune responses and blood flow
- Reduced periodontal blood flow results in a change in oral microflora composition, favouring the presence of anaerobic bacteria
- Changes in bone metabolism such as an increased secretion of the bone resorbing factors
- PGE2 and IL-1β or a decrease in intestinal uptake of calcium
- Carcinogens present in tobacco smoke can cause changes that give rise to oral cancers

# What is the relationship between smoking and oral health?

**Research has shown that, compared to those who have never smoked, smokers have an increased risk of developing:**

- **Oral cancer** – smoking causes 80–90% of oral cancers (mouth, tongue, lips, and throat use).<sup>7,8</sup> Cancer risk is significantly associated with the amount of cigarettes smoked.<sup>7</sup> Tobacco smoke works synergistically with alcohol to increase the risk of oral cancer.<sup>7</sup>
- **Oral leukoplakia and epithelial dysplasia**<sup>9,10</sup>
- **Periodontal disease, dental caries and tooth loss** – cigarette smoking is a major risk factor for periodontal disease onset and progression.<sup>7,11–16</sup> The risk of tooth loss is about two to four times greater in current smokers compared to never smokers and there is a dose dependent association between the amount smoked and risk of tooth loss.<sup>7,11–16</sup> Rate of bone loss almost four times greater than in non-smokers.<sup>13</sup>
- **Oral candidosis**<sup>7</sup>
- **Impaired treatment response and healing**<sup>7</sup> – smoking causes a lack of oxygen in the bloodstream, leading to the infected gums not being able to heal.

## Effects of smoking on oral health

- Increased risk of oral cancer
- Higher risk of periodontal disease
- Teeth discoloration
- Reduced blood supply to mouth
- Increased build up of dental plaque
- Delayed healing following tooth extraction, periodontal treatment or oral surgery
- Bad breath (halitosis)
- Alterations to taste and smell

## Benefits of stopping smoking to oral health

Successfully stopping smoking will not only benefit a patient's long term health by reducing the risk of developing other disease,<sup>17</sup> abstinence from smoking may help a patient heal faster by eliminating the acute effects of smoking on the body and stopping smoking has also been associated with improved dental outcomes.

## The clinical case for providing stop smoking support to dental patients

### Stopping smoking will:

- Improve composition of oral microflora and periodontal health.<sup>7,18–21</sup>
- Reduce risk of tooth loss.<sup>22–24</sup> Risk reduces after stopping smoking, but it takes at least 15 years to return to that of a non-smoker.<sup>25</sup>
- Reduce risk of implant failure.<sup>26</sup> Patients who stop smoking one week before treatment and eight weeks following have success rates identical to non-smoking patients.<sup>27</sup>
- Significantly reduce risk of heart disease, stroke, lung, mouth and throat cancers, other cancers, respiratory disease including and COPD, emphysema, and bronchitis.<sup>8</sup>

### Delivering better oral health: an evidence-based toolkit for prevention<sup>28</sup>

Delivering better oral health is the evidence-based toolkit for prevention, developed by Public Health England, and contains a chapter on smoking and tobacco use.

It can be accessed online:

<https://www.gov.uk/government/publications/delivering-better-oral-health-an-evidence-based-toolkit-for-prevention>



## Carbon monoxide (CO) testing in dental practice

**Carbon monoxide (CO) testing can be used in dental and other clinical settings to assess patients smoking status.**

Importantly, CO monitoring can serve as a valuable motivational tool for smokers and takes just a few minutes to conduct. These simple devices are easy to use and allow patients to understand the harm smoking is causing to their health. CO testing can assist with introducing discussions about quitting smoking with patients and can also be used to track progress after patient's stop smoking.

CO has a short half-life and is usually undetectable around 24 hours after the last cigarette.



Image supplied by MD Diagnostics Ltd. [www.mdd.org.uk](http://www.mdd.org.uk)

## How to conduct CO testing in dental settings

Explain that carbon monoxide (CO) is a poisonous gas contained in cigarette smoke and that there is a simple test that can be carried out to determine CO levels.

*"Carbon monoxide is a poisonous gas inhaled by smokers when they smoke a cigarette. Carbon monoxide reduces oxygen levels in the body and causes heart disease, stroke, reduced lung function and can also affect your dental health. The good news for you is that shortly after stopping smoking the level of carbon monoxide in your body returns to that of a non-smoker. This machine measures the amount of carbon monoxide in your lungs in parts per million and if you have not been smoking then we would expect it to be below 10 parts per million. Would you like to measure your carbon monoxide levels?"*

**It is worth emphasising that patients should hold their breath for a minimum of 15 seconds before blowing into the CO monitor.**

This allows the pressure in the lungs to equalise and for the carbon monoxide in the blood to pass into the air in the lungs; it is this that is then measured by the monitor in parts per millions.

*"What I am going to ask you to do in a minute is to take a big deep breath, hold your breath and then exhale into this machine. You will need to hold your breath for about 15 seconds. After you have taken your breath I will hand the machine to you, the machine will count down and I will then tell you when to exhale into it."*

## After the test:

**If reading was 10 parts per million or above:**

*"The monitor is showing a reading of over 10 parts per million. The normal range for a non-smoker is between 1 and 5 ppm and so you can see that your reading is ... times higher than what we would expect from a non-smoker. These levels of carbon monoxide are considered poisonous – they are ... times the levels that are considered safe. High levels of carbon monoxide affects the amount of oxygen in your body and causes serious disease. The good news is quitting smoking you can get this down to the levels of a non-smoker."*

**If reading was below 10 parts per million  
(and the patient is known to be a smoker):**

*"This reading is classed as that of a non-smoker; although the normal range for a non-smoker is between 1 and 5 ppm. However, carbon monoxide accumulates in the body and I'm sure that if we were to repeat the test later today or sooner after you've smoked it would be much higher. The good news is if you stop smoking then you can get this permanently down to the levels of somebody who doesn't smoke."*

## How to use the CO monitor

- 1 Both the client and the stop smoking practitioner should use non-alcoholic sanitiser gel on their hands before the test
- 2 Attach a clean, disposable filtered mouthpiece (a fresh one for each client) to the monitor
- 3 Turn the machine on
- 4 Ask the client to take a deep breath
- 5 The monitor will count down 15 seconds
- 6 The client needs to blow slowly into the mouthpiece aiming to empty their lungs completely
- 7 The parts per million (ppm) of carbon monoxide in the lungs will be displayed on the screen
- 8 The mouthpiece should be removed by the client (for infection control reasons) and disposed of in a refuse sack, which is tied before being placed in another bag for collection (double bagging) to prevent domestic staff touching the mouth pieces
- 9 The CO monitor should be cleaned between tests using a non-alcoholic wipe



**Our bodies produce small amounts of carbon monoxide and there is also carbon monoxide in the atmosphere around us, e.g. in car exhaust fumes, so the reading will almost never be zero; it will also fluctuate slightly depending upon what air you have been exposed to. A reading of below 10 parts per million is considered to be that of a non-smoker.**

Readings above 10 parts per million are not normally caused by being in the company of smokers; this can increase exposure to carbon monoxide, but does not normally push the reading above 10.

## What else can raise CO?

- Exposure to CO fumes from a faulty gas boiler, car exhaust or paint stripper.
- Lactose intolerance where the high reading is a consequence of consuming dairy products that can produce gases in the breath.
- Exposure to passive smoking. Although readings above 10 ppm are not normally caused by being in the company of smokers.
- Unusually high ambient CO concentrations due to weather conditions or air pollution.

## Other resources

The NCSCT offers a variety of online training and face-to-face courses, and resources in smoking cessation.

For further training in Very Brief Advice on Smoking you may access the NCSCT Online Training Module

<http://elearning.ncsct.co.uk/vba-launch>

If you are interested in learning more about providing behavioural support to assist with quit attempts you should access the NCSCT Online Practitioner Training: Core competencies in helping people stop smoking

[http://elearning.ncsct.co.uk/practitioner\\_training-registration](http://elearning.ncsct.co.uk/practitioner_training-registration)

## Electronic cigarettes (e-cigarettes)?<sup>29</sup>

### What are e-cigarettes?

E-cigarettes are devices that deliver nicotine within an inhalable aerosol by heating a solution that typically contains nicotine, propylene glycol and/or glycerol, plus flavours. There is a wide range of e-cigarettes and people may need to try various types, flavours and nicotine dosages before they find a product that they like.

### What is the evidence on the safety of e-cigarettes?

Short-term exposure to e-cigarettes appears to pose few if any risks. Mouth and throat irritation are most commonly reported symptoms and these subside over time. Low levels of toxicants and carcinogens have been detected in e-cigarette liquid and vapour, but these are much lower than those found in cigarette smoke. There are no high quality safety data from long-term e-cigarette use, but there is no good reason to expect that their use would be anywhere near as risky as smoking. Although some health risks from e-cigarette use may yet emerge, there is no good reason to expect that their use would be anywhere near as risky as smoking. This is because e-cigarette vapour does not contain the products of combustion (burning) that cause lung and heart disease, and cancer.

### What do I recommend to my patients who ask about using e-cigarettes?

Some people find e-cigarettes helpful for quitting, cutting down their nicotine intake and/or managing temporary abstinence. While combining quit smoking medications and behavioural counselling has the strongest evidence for increasing quit rates, Public Health England supports the use of e-cigarettes as a quit smoking aid, ideally in combination with a first line quit smoking medication and counseling support.<sup>30</sup> For any patients who are using or are planning to use e-cigarettes to quit smoking or cutback on their smoking it is recommended that they also be referred to their local stop smoking service to give them the best chances of quitting.

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# **SMOKING CESSATION**

## **BRIEF ADVICE A A A**

**Did you know giving up smoking significantly increase your chances of living a longer healthier lifestyle, even if you have smoked for 40 years!**

It is never to late to think about stopping, it will make a drastic improvement to your lifestyle and health in ways you might not expect.

### **Benefits of quitting**

- After 20 minutes your blood pressure and pulse return to normal
- After 24 hours your lungs start to clear
- After two days your body is nicotine-free and your sense of taste and smell improve
- After three days you can breathe more easily, and your energy increases.

## Very Brief Intervention



Ask



Assist



Act

### Act

#### NATIONAL SUPPORT

- Call the free Smokefree National Helpline to speak to a trained, expert adviser on 0300 123 1044. All lines are open Monday to Friday 9am to 8pm and Saturday and Sunday 11am to 4pm\*.
- Smokefree has lots of free support this includes a smartphone app, email programme or text messages that will keep you focused wherever you are.
- You can also speak to your doctor, pharmacy team or local Stop Smoking Service for expert advice on stop smoking medicines.

#### SELF CARE

- Download the NHS Smokefree app from itunes or google play
- Get further information from the National Health Service [www.nhs.uk/quit](http://www.nhs.uk/quit)
- Consider using e-cigarettes to stop smoking
- Millions have used Smokefree support to help them stop smoking. Choose from an app, email, SMS and face-to-face guidance.

**Emphasise that quitting will be the best thing they will ever do and the NHS Smokefree service can provide the friendly and helpful support they need to quit for good**

## Very Brief Intervention



**Ask**



**Assist**



**Act**

### Assist

**State that the best way of stopping smoking is with a combination of medication and specialist support**

- Studies show that you are four times more likely to quit smoking if you do it through a specialist support service.
- Services are free and they provide one to one support.
- Local stop smoking services staffed by expert advisers provide a range of proven methods to help you quit.
- Its totally free

**Do you think you would benefit from the services your local stop smoking service can offer?**

# Very Brief Intervention



**Ask**



**Assist**



**Act**

## Ask

Have you ever thought of stopping or tried to stop before?

The average smoker could save £140 each month (£1680 per year) by quitting, what would you do with that extra money?

Remember to personalise the benefits. Is the person saving for a holiday, or a new home? Do they have children or grandchildren they would like to run around with?

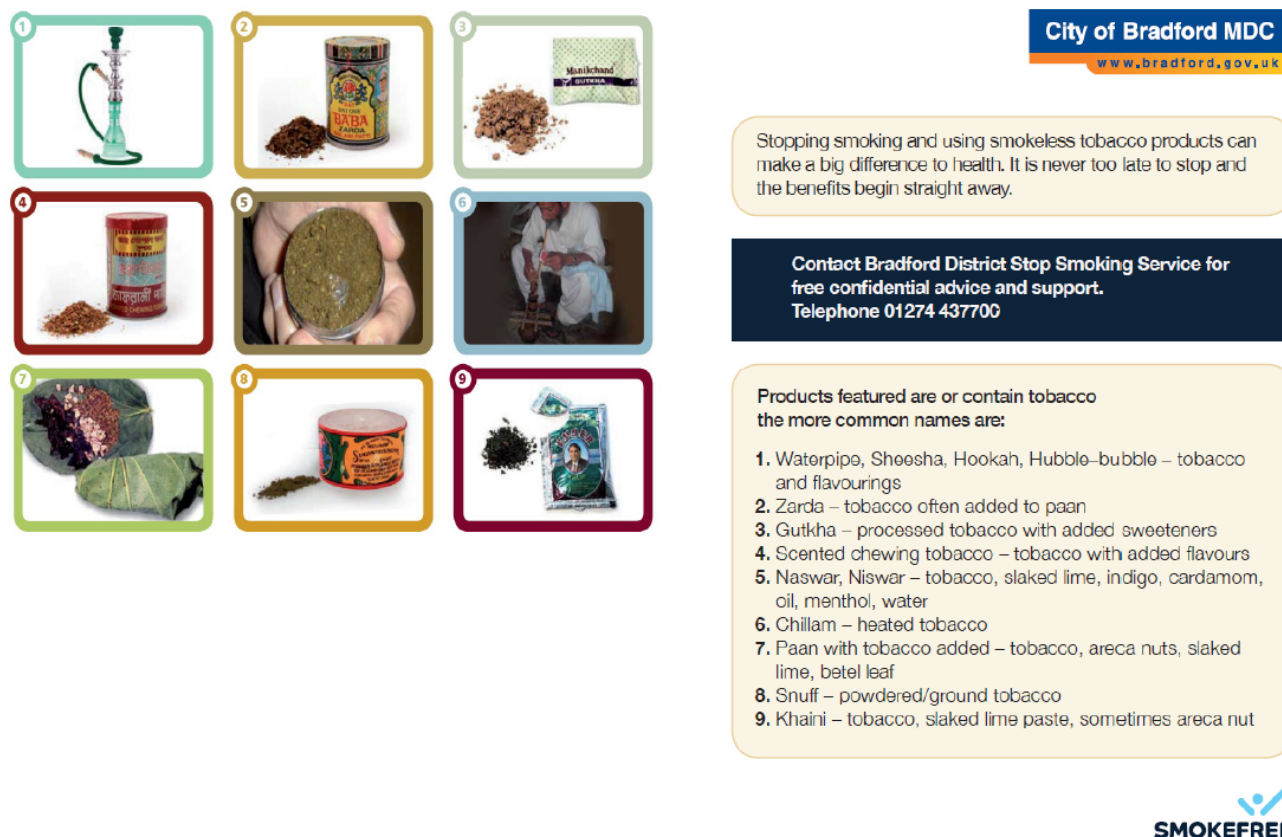


Figure 7.2 Niche tobacco resource developed by Bradford & Airedale stop smoking service

Among certain ethnic minority groups, chewing tobacco and/or areca nut (paan) is a common cultural practice. Evidence indicates that chewing tobacco and other products is associated with the development of oral cancers and other oral pathologies (Carr and Ebbert, 2012, Tsai et al., 2009). A recent Cochrane systematic review showed that advice delivered in dental surgeries is effective in helping patients who chew tobacco to stop. Current NICE guidance (National Institute for Health and Clinical Excellence, 2012), regarding smokeless tobacco users in South Asian communities, recommends dental teams:

Ask people if they use smokeless tobacco, using the names that the various products

are known by locally. If necessary, show them a picture of what the products look like, using visual aids. (This may be necessary if the person does not speak English well or does not understand the terms being used). Figure

7.2 gives an example of a resource that could be used, with details of each product on the reverse. This resource also provides information on shisha (water pipe top left image on resource below) use. Shisha is not a smokeless tobacco product and can be as damaging as smoking cigarettes or chewing any of the smokeless tobacco products listed. Users of shisha, who wish to stop smoking, should be referred to the stop smoking service in the same way as other users of tobacco. Advise the patient of the health risks (eg, the risk of lung cancer, respiratory illness and periodontal



disease) (Akl et al., 2010) associated with tobacco use and advise them to stop. Where services exist locally, refer people who want to quit to local specialist tobacco cessation service. Record the outcome in the patient's notes. VBA (ask, advise, act) is the same method you would apply to smokers or smokeless tobacco users.



PINT CIDER: ABV 5.3%  
**3 UNITS**



RED WINE (125ML): ABV 12.5%  
**1.6 UNITS**



SAMBUCA SHOT: ABV 42%  
**1 UNIT**



BOTTLE LAGER: ABV 5.2%  
**1.7 UNITS**



ALCOPOP: ABV 5%  
**1.4 UNITS**



HALF PINT CIDER: ABV 5.3%  
**1.5 UNITS**



SINGLE GIN & TONIC: ABV 40%  
**1 UNIT**



DOUBLE COGNAC: ABV 40%  
**2 UNITS**



CHAMPAGNE (175ml): ABV 11.5%  
**2 UNITS**



DOUBLE WHISKY & COKE: ABV 40%  
**2 UNITS**



HALF PINT LAGER: ABV 5.2%  
**1.5 UNITS**



COSMOPOLITAN COCKTAIL  
**2 UNITS**



PINT BITTER: ABV 5%  
**2.8 UNITS**



ALCOPOP: ABV 5%  
**1.4 UNITS**



PIMMS: ABV 25%  
**1.3 UNITS**



DOUBLE WHISKY: ABV 40%  
**2 UNITS**



WHITE WINE (175ml): ABV 13%  
**2.3 UNITS**



PINT LAGER: ABV 5.2%  
**3 UNITS**



BOTTLE OF WINE: ABV 13.5%  
**10 UNITS**

# Fast alcohol screening test (FAST)

FAST is an alcohol harm assessment tool. It consists of a subset of questions from the full alcohol use disorders identification test (AUDIT). FAST was developed for use in emergency departments, but can be used in a variety of health and social care settings.

Questions	Scoring system					Your score
	0	1	2	3	4	
How often have you had 6 or more units if female, or 8 or more if male, on a single occasion in the last year?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
<b>Only answer the following questions if the answer above is Never (0), Less than monthly (1) or Monthly (2). Stop here if the answer is Weekly (3) or Daily (4).</b>						
How often during the last year have you failed to do what was normally expected from you because of your drinking?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
How often during the last year have you been unable to remember what happened the night before because you had been drinking?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
Has a relative or friend, doctor or other health worker been concerned about your drinking or suggested that you cut down?	No		Yes, but not in the last year		Yes, during the last year	

<b>FAST score</b>	
-------------------	--

**An overall total score of 3 or more on the first or all 4 questions is FAST positive.**

## What to do next?

If your score is FAST positive, complete remaining AUDIT alcohol screening questions; this may include the three remaining questions above as well as the six questions on the second page to obtain a full AUDIT score.

# Remaining alcohol harm assessment questions from AUDIT

Questions	Scoring system					Your score
	0	1	2	3	4	
How often do you have a drink containing alcohol?	Never	Monthly or less	2 to 4 times per month	2 to 3 times per week	4 times or more per week	
How many units of alcohol do you drink on a typical day when you are drinking?	0 to 2	3 to 4	5 to 6	7 to 8	10 or more	
How often during the last year have you found that you were not able to stop drinking once you had started?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
How often during the last year have you needed an alcoholic drink in the morning to get yourself going after a heavy drinking session?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
How often during the last year have you had a feeling of guilt or remorse after drinking?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
Have you or somebody else been injured as a result of your drinking?	No		Yes, but not in the last year		Yes, during the last year	

<b>Total AUDIT score</b>	
--------------------------	--

## Scoring:

- 0 to 7 indicates low risk
- 8 to 15 indicates increasing risk
- 16 to 19 indicates higher risk,
- 20 or more indicates possible dependence

# Alcohol unit reference

One unit of alcohol



Half pint of "regular" beer, lager or cider



Half a small glass of wine



1 single measure of spirits



1 small glass of sherry



1 single measure of aperitifs

Drinks more than a single unit



Pint of "regular" beer, lager or cider



Pint of "strong" or "premium" beer, lager or cider



Alcopop or a 275ml bottle of regular lager



440ml can of "regular" lager or cider



440ml can of "super strength" lager



250ml glass of wine (12%)



75cl Bottle of wine (12%)

# GUM HEALTH AWARENESS

HEALTH CARE PROFESSIONALS

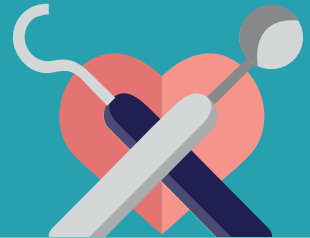
## Diabetes increases the risk of gum disease



People with diabetes have a greater risk of developing gum disease (gingivitis and periodontitis).



Gum disease can negatively affect diabetes control.



Successful gum treatment may improve control of diabetes.



Inform people with diabetes of the increased risk of gum disease and advise them to see their dental professional for regular check ups, treatment and regular maintenance.



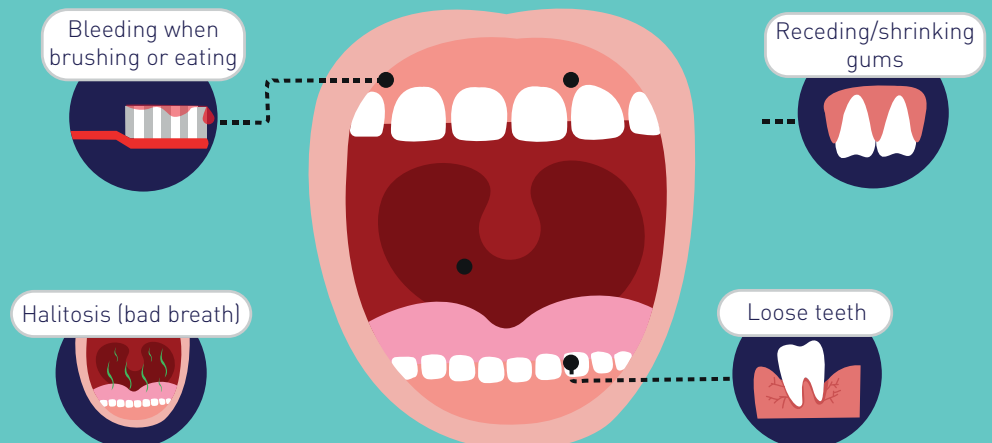
Patients recently diagnosed with diabetes should share this information with their dentist and hygienist and request more careful annual monitoring of their gums.



Information on improving gum health should be part of overall diabetes management.

## Symptoms

Be aware of signs/symptoms of gum disease such as gums bleeding while brushing or eating, loose teeth, receding/shrinking gums and halitosis (bad breath).





# Commissioning Standard: Dental Care for People with Diabetes

NHS England and NHS Improvement



## Equality and Health Inequalities Statement

Promoting equality and addressing health inequalities are at the heart of NHS England's values. Throughout the development of the policies and processes cited in this document, we have:

- Given due regard to the need to eliminate discrimination, harassment and victimisation, to advance equality of opportunity, and to foster good relations between people who share a relevant protected characteristic (as cited under the Equality Act 2010) and those who do not share it; and
- Given regard to the need to reduce inequalities between patients in access to, and outcomes from, healthcare services and to ensure services are provided in an integrated way where this might reduce health inequalities.



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## **Commissioning Standard:**

### **Dental Care for People with Diabetes**

Publishing approval number: 000078

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Prepared by: OCDO

This information can be made available in alternative formats, such as easy read or large print, upon request. Please contact PMO on [england.ocdo-pmo@nhs.net](mailto:england.ocdo-pmo@nhs.net).

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## 1 Foreword

NHS England produced the NHS Long Term Plan<sup>1</sup> to set out a shared view of the challenges ahead and the choices about health and care services in the future; it applies to all services including dentistry.

The International Diabetes Federation and European Federation of Periodontology have set out a clear roadmap for the co-morbid relationship between periodontitis and type 2 diabetes and their joined-up management.

This Commissioning Standard will support the local implementation of pathways for patients to enable the benefits of timely and effective periodontal management on oral health and importantly general health to be realised.

## 2 Executive summary

It is now clear that there is a bidirectional link between diabetes and periodontitis (gum disease)<sup>2</sup>. People with type 2 and type 1 diabetes are at greater risk of developing periodontitis and people with periodontitis are at greater risk of developing type 2 diabetes. In addition, effective treatment of periodontitis in people with type 2 diabetes can improve glycaemic control to an extent that can reduce the need for an additional prescribed medication as well as to reduce systemic complications associated with increased glycaemia<sup>3</sup>.

People with type 2 and type 1 diabetes (from here on, 'diabetes' which does not specify the type, will refer to both type 1 and type 2 diabetes) need to access effective dental care and local pathways should be developed to support this. This will require local engagement between providers and commissioners of dental services and diabetes services, and the commissioning of dental services with the appropriate skills and competences to deliver the care required.

This document helps guide commissioners to introduce new procurements for existing contracts in a planned way that considers local capacity and capability. In emphasising local resourcing, these standards do not place mandatory requirements on existing providers. The recommended changes outlined in this document relate to new procurements only and will involve redirection of an existing resource.

Planning of services should be underpinned by a needs assessment. In the context of this commissioning standard, an oral health needs assessment should be used to

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<sup>1</sup> <https://www.longtermplan.nhs.uk/online-version/>

<sup>2</sup> <https://www.ncbi.nlm.nih.gov/pubmed/28642531>

<sup>3</sup> <https://onlinelibrary.wiley.com/doi/abs/10.1111/jcpe.12837>  
<https://onlinelibrary.wiley.com/doi/10.1111/j.1600-051X.2011.01764.x>  
<https://www.ncbi.nlm.nih.gov/pubmed/26717883>

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determine if current dental services for people with diabetes are adequate, given the context above.

Commissioners will then need to work with their Local Dental Network and associated Managed Clinical Networks to redesign services where required, which may involve awareness raising, skill mix review and additional training and competence development.

The views of people with diabetes who will be using the services must be sought at the outset and as information and services are developed.

### 3 Introduction

This document sets out the Commissioning Standard for dental care for people with diabetes. The purpose of this standard is to ensure that people with diabetes can access effective oral healthcare services with the aim of improving their general and oral health<sup>4</sup>.

As national guidance, commissioners are required to implement the requirements contained within this document when procuring new periodontal services. The requirements to conform are also relevant for all current primary care providers.

Commissioners need to work with existing providers and agree a timetable for adoption of these requirements. Commissioners should look to work towards addressing any unmet need and develop a plan to address this. There will also be a need for a local plan to raise awareness in the medical and dental professions and the public on the link between oral health and diabetes.

### 4 Context

#### 4.1 Diabetes

Diabetes is a life-long condition that is caused by problems with a hormone in the body called insulin which results in the level of sugar (glucose) in the blood to become too high<sup>5</sup>. Most cases are classified as type 1 or type 2. Type 1 diabetes is an autoimmune condition characterized by immune destruction of the insulin producing cells in the pancreas, that results in absolute insulin deficiency. Type 2 diabetes accounts for almost 90% of cases<sup>6</sup>, is associated with lifestyle factors such as being overweight or obese, and is characterised by resistance to the action of insulin as well as relative insulin deficiency. Type 2 diabetes tends to occur in later life and around two thirds of cases can be prevented or delayed by maintaining a healthy weight, eating well and being active<sup>7</sup>. Type 2 diabetes is more common in people of African, African-Caribbean and South Asian family origin. It can occur in all

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<sup>4</sup> <https://www.ncbi.nlm.nih.gov/pubmed/11106011>

<sup>5</sup> <https://www.nhs.uk/conditions/type-2-diabetes/>

<sup>6</sup> <https://www.diabetes.org.uk/Professionals/Position-statements-reports/Statistics>

<sup>7</sup> <https://www.diabetes.org.uk/Professionals/Position-statements-reports/Statistics>

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age groups and is increasingly being diagnosed in children<sup>8</sup>. Diabetes care is estimated to account for at least 5% of UK healthcare expenditure, and up to 10% of NHS expenditure<sup>9</sup>.

### 4.2 Periodontitis

Periodontitis (gum disease) is a preventable chronic inflammatory disease linked to accumulation of plaque on teeth and gums. Therefore, it can be prevented by good oral hygiene and managing risk factors, for example, smoking or poorly controlled, or undiagnosed diabetes. It is treated by improving self-care and professional cleaning and debridement. Effective oral hygiene, short and long-term maintenance and review are important.

### 4.3 The link between type 2 diabetes and periodontitis

There is high quality evidence<sup>10</sup> that type 2 diabetes is a risk factor for periodontitis, so people with diabetes are more likely to have gum disease. There is evidence that in people with type 2 diabetes, intensive periodontal therapy involving scaling and root surface debridement can reduce HbA1c (a marker of glycaemic control) at 3-4 months by between 0.27% and 1.03%<sup>11</sup> which might mean the patient does not need a second diabetes medication. People with periodontitis have relatively higher levels of HbA1c, and so may be more likely to develop non-diabetic hyperglycaemia (NDH) and type 2 diabetes.

### 4.4 Implications of the link between diabetes and periodontitis

People with diabetes need to have support from the dental team to help prevent periodontitis, with early diagnosis and treatment of periodontitis, if it is already established. They need regular surveillance and review to maintain good gum health and spot any potential deterioration as early as possible. All people with periodontitis need to have this treated and then good gum health should be maintained, as above, to help to prevent development of type 2 diabetes. In both cases there is a need to raise awareness of this interrelationship, within the dental, medical and health professions, and in the public.

A link to a summary of existing clinical evidence document will be inserted here once it is published<sup>12</sup>.

## 5 Current service provision

### 5.1 Diabetes services

NHS England's commissioning has moved towards more place based, clinically-led commissioning, and shares or delegates commissioning of primary medical care services to CCGs. The diabetes pathway<sup>13</sup> defines the core components of an

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<sup>8</sup> <http://pathways.nice.org.uk/pathways/type-2-diabetes-in-adults/type-2-diabetes-in-adults-overview.pdf>

<sup>9</sup> <http://pathways.nice.org.uk/pathways/type-2-diabetes-in-adults/type-2-diabetes-in-adults-overview.pdf>

<sup>10</sup> <https://www.onlinelibrary.wiley.com/doi/abs/10.1111/jcpe.12808>

<sup>11</sup> <https://www.onlinelibrary.wiley.com/doi/abs/10.1111/jcpe.12808>

<sup>12</sup> Please contact [england.ocdo-pmo@nhs.net](mailto:england.ocdo-pmo@nhs.net) to view the clinical evidence document

<sup>13</sup> <https://www.england.nhs.uk/rightcare/products/pathways/diabetes-pathway/>

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optimal diabetes service for people with type 1 or type 2 diabetes, or at risk of developing type 2 diabetes and includes:

- Risk detection
- Diagnosis and initial assessment
- Structured educational programmes
- Annual personalized care planning
- Service referral
- Identification and management of admissions by inpatient diabetes teams

## 5.2 Dental services

NHS England has responsibility for commissioning all dental services including specialist, community and out of hour's dental services. Under the Standard General Dental Services Contract – July 2018, periodontal treatment is listed as a mandatory service. Currently all dentate adults (those with teeth), who visit a general dental practitioner for routine dental assessment, should expect an oral health needs assessment combining history taking and clinical examination, including screening for periodontitis. Should a patient subsequently be diagnosed with periodontitis they would receive care according to their individual needs. The key components of periodontal treatment in primary dental care are set out in *Delivering better oral health: an evidence-based toolkit for prevention*, third edition, 2014.

- Monitoring of plaque and gingival inflammation to guide oral hygiene advice
- Monitoring of probing (pocket) depths and bleeding on probing to guide:
  - evaluation of health/stability
  - targeting of treatment
- Oral hygiene advice/behaviour
- Debridement:
  - removal of supra and subgingival plaque and calculus,
  - root surface debridement of pockets 5mm and deeper with bleeding on probing

## 5.3 Advanced periodontal care pathways

It is expected that most general dental practitioners will be able to deliver Level 1 services to diagnose and manage patients with uncomplicated periodontitis (as detailed in Appendix 1). However, current provision and potential gaps in Level 2 periodontal services may need to be addressed.

## 6 Potential for integrated care pathways

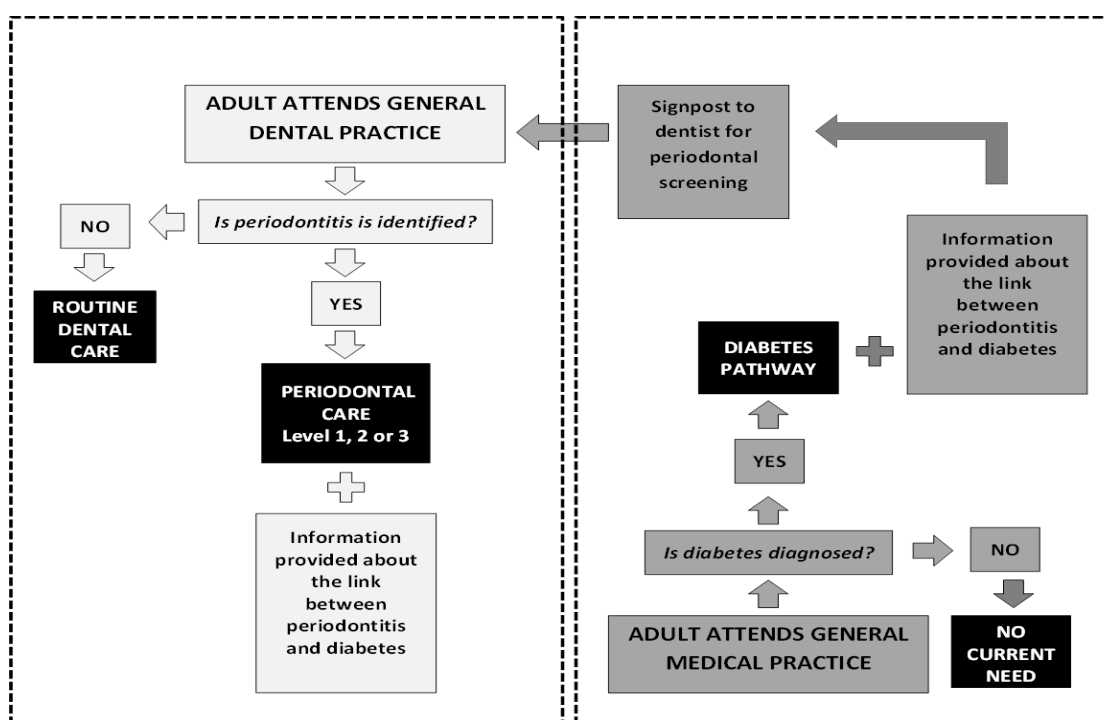
The greatest impact can be achieved by ensuring that all patients with diabetes are sign-posted to a general dental practitioner for periodontal screening. Patients who are diagnosed with periodontitis will then be assessed for care complexity levels and managed accordingly.

### 6.1 Adults attending General Dental Practice

Currently all dentate adults, who present to a general dental practitioner for routine dental assessment, should expect an oral health needs assessment combining history taking and clinical examination, including screening for periodontitis. Should a patient subsequently be diagnosed with periodontitis they receive care according to their individual needs. The new clinical care pathway intends to complement current care by raising awareness with patients about the link between periodontitis and diabetes.

### 6.2 Adults attending General Medical Practice

Adults attending their general medical practice are not routinely screened for type 2 diabetes, unless they are deemed “at risk”, or as part of the NHS Health Check. The new clinical care pathway intends to complement current care by raising awareness with patients about the link between periodontitis and diabetes, and signposting to general dental practice.



**Figure 1:** A flowchart detailing clinical care pathway for patients diagnosed with diabetes (from general medical practitioner to general dental practitioner, and appropriate triage – Level 1, 2, or 3).

### 6.3 Benefits of integrated care pathway

It is proposed that implementation of the standard would lead to the following impacts:

- Greater awareness and access to effective periodontal services for patients.
- Greater detection and effective treatment of periodontitis amongst people with diabetes.
- An economic analysis indicated that if existing treatment of periodontitis within dental practices improves to the level anticipated in the proposed commissioning standard, this would lead to savings in NHS medical care of £124m.

A link to economic modelling report will be inserted here once it is published<sup>14</sup>.

## 7 Commissioning dental care for people with diabetes and periodontitis

Commissioners and Local Dental Networks will need to agree a timeframe for this piece of work, taking account of other local priorities, but being mindful of the potential savings to the NHS and improvement in quality of life for people with diabetes. Once the timeframe is agreed, the local staffing resources can be identified to support the project as this will need building into workplans for commissioners, Local Dental Network and Managed Clinical Network chairs, and members and Consultants in Dental Public Health.

The project will include several workstreams, some of which can run concurrently. Early establishment of a project board is recommended to oversee the process.

Identified workstreams are:

- Needs assessment
- Communication and awareness raising
- Training and development of dental teams
- Development of local care pathway for people with diabetes that includes an oral health assessment
- Potential procurement of periodontal level 2 complexity services

It is recommended that, in addition to those noted above, the project board includes the chair of the local Restorative Managed Clinical Network, or identified member with an interest in periodontal management. Where such an MCN is not yet established, this should be an early priority.

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<sup>14</sup> Please contact [england.ocdo-pmo@nhs.net](mailto:england.ocdo-pmo@nhs.net) to view the economic modelling report.



## 7.1 Needs assessment

Planning oral healthcare services should be underpinned by a needs assessment. In the context of this commissioning standard, an oral health needs assessment (OHNA) should be used to determine if current dental care for people with diabetes is meeting local oral health needs. The method used should aim to answer the following:

- What is the health problem?
- What is the size and nature of the problem in the population?
- What are the current services?
- What do professionals, patients and the public and other stakeholders want?
- What are the most appropriate and cost-effective interventions?
- What are the resource implications?

The process for undertaking an oral health needs assessment and the broad stages are set out below:

OHNA stages	What might this look like for dental care for people with diabetes
1. Establish a working group	Including, but not limited, to local consultant in dental public health, NHS dental commissioners, dental and medical professionals working with people with diabetes, patient/ public involvement
2. Agree aims, scope and timescales	To describe the oral health needs of people with diabetes within a given geographic region to identify potential unmet need
3. Collate existing needs assessments and other relevant information	National and regional figures for periodontitis prevalence can be found in the Adult Dental Health Survey Periodontal service activity can be requested from BSA to quantify volume of scale and polishes in primary care at both band 1 and 2 levels  The National Diabetes Audit (NDA) provides annual prevalence figures for diabetes by CCG, age group (under 40, 40-64, 65-79, 80+ years), gender, IMD and ethnicity
4. Identify and close information gaps on health needs, relevant service activity, workforce, and other resources	Seek out local data on periodontitis prevalence

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	<p>Map intermediate and secondary care periodontal services locally – consider the need to audit these services to explore which aspects of “restorative care” relate to management of periodontitis</p> <p>Establish if there are any existing combined dental and diabetes care pathways</p>
5. Build a comprehensive picture of needs and resources	<p>Set out the periodontal health needs of a given population including:</p> <ul style="list-style-type: none"> <li>• Prevalence</li> <li>• Distribution</li> <li>• Inequalities</li> <li>• Current services and activities</li> </ul>
6. Interpretation of the information to identify unmet needs and agree priorities for potential action to meet these needs	<p>Set out met and unmet need in relation to levels 1,2 and 3 complexity management of periodontitis</p> <p>Model the potential impact on unmet need of the potential increased patient flows into dental services from general medical practice</p>
7. Identify shared priorities for action that are locally appropriate and consult on these	A local implementation group should be convened to set an action plan
8. Action plan to address priorities	
9. Implement action plan to meet local needs	Implementation and evaluation will need to factor both, periodontal and diabetes pathways
10. Evaluate actions	

## 7.2 Communication and awareness raising

The bidirectional link between diabetes and periodontitis is not currently well known and so it is vital that this is communicated to all stakeholders including patients. The EFP/BSP have developed a suite of resources that could be used for such purpose (please see Appendix 2 for the links to their websites containing these resources).

Local Dental Networks will have developed communication links with local dental practices and so these should be used to raise awareness amongst dental teams first. This could be linked to training and development activity, for example, ensuring all clinical team members have up to date knowledge skills and competences in line with Delivering Better Oral Health.

Once dental practices are engaged they should undertake in-practice audits of the number of patients with diabetes they currently see and ensure these patients are offered regular periodontal surveillance and support.

Communication with GPs and diabetes teams should follow and be undertaken in conjunction with local Diabetes Clinical Networks. These Networks can also assist with communication to people with diabetes and their healthcare professionals. It is essential that the importance of good periodontal, or gum health, is incorporated into the suite of self-care measures that people with diabetes already employ.

### **7.3 Training and development of dental teams**

This should be undertaken in conjunction with the awareness raising discussed above, and the local Restorative MCN, or periodontal champion should be involved in designing training, and development. The value of the whole dental team should be stressed, as training should include patient education and motivation, as well as clinical periodontal assessment and treatment.

Emphasis should be placed on effective treatment of the practice's current patient base with diabetes, or the potential to develop diabetes. Once this is established, the practice will be able to move on to look after patients directed from the care pathway. The MCN should involve practices in design of short-term and longer-term clinical audits of the effectiveness of patient motivation on self-care and effectiveness of periodontal treatment of periodontal (gum) health.

### **7.4 Development of local care pathway for people with diabetes that includes an oral health assessment**

Once the OHNA has been completed and the local dental practices have been engaged in training and development, the pathway described above can be tailored for local needs and local practices. The key point is that patients with diabetes who do not currently regularly visit a dentist, should be able to quickly and easily find a practice to look after them. This might require a local prioritisation plan for people signposted from the diabetes care pathway. Consideration should be given to use of flexible commissioning to incentivise practices to develop services for people with diabetes.

### **7.5 Potential procurement of periodontal level 2 complexity services**

It is expected that the majority of general dental providers will be able to deliver level 1 services to diagnose and manage patients with uncomplicated periodontitis (levels of complexity can be found in Appendix 1). The OHNA may have identified potential gaps in provision of level 2 periodontal services which may need to be addressed. The MCN should design a clear referral pathway for people with diabetes who require treatment of level 2 complexity. The in-practice audits described above could provide a method to quantify the volume of level 2 services, so that commissioners can plan the procurement required. A hub and spoke model is recommended so that the providers of level 2 complexity care can support a number of general dental practitioners and help them to develop more advanced competences where appropriate.

## **8 Local implementation example**

London region are a case study for early adoption and piloting of the commissioning standard, and as such have formed an Implementation Group for Diabetes and Oral Health Commissioning Standard in London:

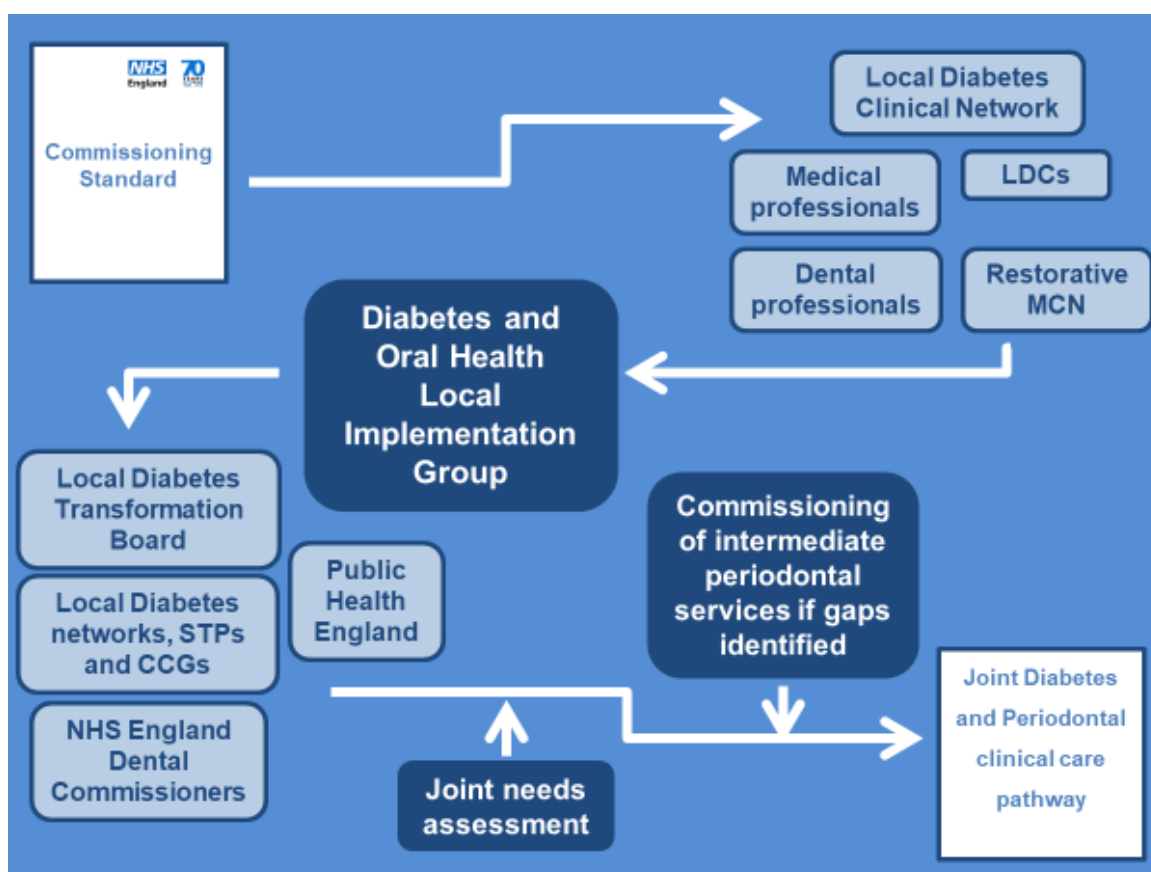
- To establish a better knowledge of the bidirectional link between diabetes and periodontitis with GMPs and GDPs.

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- To improve the flow of patients with diabetes and/or periodontitis between medical and dental clinical care pathways, leading to improved oral and general health outcomes.

Through the following roles:

- To lobby appropriate support, use local knowledge and networks to enable the aims stated above
- To consider contractual levels and/or initiatives to enable a culture shift for collaboration between the medical and dental professions.



**Figure 2:** An overview of the proposed engagement process for use when implementing the care pathway locally.

## Appendix 1: Complexity criteria for Periodontal Services

### **Level 1 complexity:**

Diagnosis and management of patients with uncomplicated periodontal diseases, including but not limited to:

- Evaluation of periodontal risk, diagnosis of periodontal condition and design of initial care plan within the context of overall oral health needs.
- Measurement and accurate recording of periodontal indices.
- Communication of nature of condition, clinical findings, risks and outcomes.
- Designing care plan and providing treatment.
- Assessment of patient understanding, willingness and capacity to adhere to advice and care plan.
- Evaluation of outcome of periodontal care and provision of supportive periodontal care programme.
- On-going motivation and risk factor management including plaque biofilm control.
- Avoidance of antibiotic use except in specific conditions (necrotising periodontal diseases or acute abscess with systemic complications) unless recommended by specialist as part of comprehensive care plan.
- Preventive and supportive care for patients with implants.
- Palliative periodontal care and periodontal maintenance.
- Any other treatment not covered by level 2 or 3 complexity.

### **Level 2 complexity:**

Management of patients:

- Who, following primary care periodontal therapy, have residual chronic moderate (30-50% horizontal bone loss) periodontitis and residual true pocketing of 6mm and above.
- With certain non-plaque-induced periodontal diseases e.g. virally induced diseases, auto-immune diseases, abnormal pigmentation, vesiculo-bullous disease, periodontal manifestations of gastrointestinal and other systemic diseases and syndromes, under specialist guidance.
- With aggressive periodontitis as determined by a specialist at referral.
- With furcation defects and other complex root morphologies when affected teeth are strategically important.
- With gingival enlargement non-surgically, in collaboration with medical colleagues.
- Who require pocket reduction surgery when delegated by a specialist.
- With peri-implant mucositis where implants have been placed under NHS contract.

**Level 3 complexity**

Triage and management of patients:

- With severe (> 50% horizontal bone loss) periodontitis, aggressive periodontitis and true pocketing of 6mm or more.
- Requiring periodontal surgery.
- Furcation defects and other complex root morphologies not suitable for delegation.
- With non-plaque induced periodontal diseases not suitable for delegation to a practitioner with enhanced skills.
- Peri-implantitis where it is the responsibility of the NHS to manage the disease when implants have been placed under an NHS contract.
- Patients who require multi-disciplinary specialist care (Level 3).
- Where patients of Level 2 complexity do not respond to treatment.
- Non-plaque induced periodontal diseases including periodontal manifestations of systemic disease.

## Appendix 2: Resources

This suite of resources was developed by European Federation of Periodontology (EFP) and British Society of Periodontology (BSP).

Please access this link to find EFP's infographic material: <https://www.efp.org/>

Please access this link to find BSP's infographic material: <http://www.bsperio.org.uk/>

## Glossary

BPE	<b>Basic Periodontal Examination</b>
BSP	<b>British Society of Periodontology</b>
CsDPH	<b>Consultant in Dental Public Health</b>
CCG	<b>Clinical Commissioning Groups</b>
DH	<b>Department of Health</b>
FYFV	<b>Five Year Forward View</b>
GDP	<b>General Dental Practitioner</b>
GDS	<b>General Dental Service</b>
HbA1c	<b>Glyceated Haemoglobin Index</b>

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HEE	<b>Health Education England</b>
NDH	<b>Non-diabetic Hyperglycaemia</b>
PDS	<b>Personal Dental Service</b>
GP/GMP	<b>General Medical Practitioner</b>
LDN	<b>Local Dental Network</b>
MCN	<b>Managed Clinical Network</b>
PHE	<b>Public Health England</b>