

ORAL HEALTH FOR THE AGEING MOUTH

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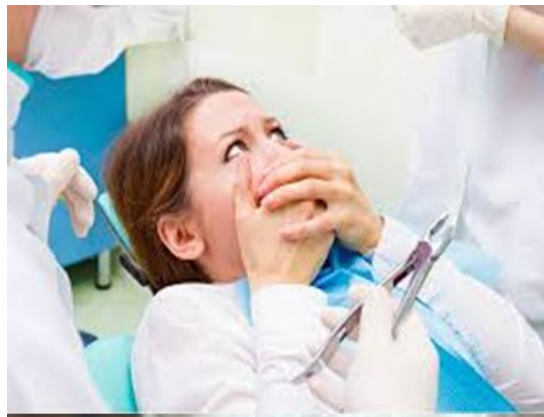
SPECIAL CARE DENTISTRY

‘ the improvement of the oral health of individuals and groups in society who have a physical, sensory, intellectual, mental, medical, emotional or social impairment or disability or, more often, a combination of these factors.’

‘ Formally recognised by the General Dental Council (GDC) in 2008.’

PATIENT REMIT:

- Anxious/phobic adults
- Learning disabilities
- Mental health
- Physical disabilities
- Medically compromised
- Sensory impairments
- Prisoners
- Homeless



Learning outcomes

- Raise awareness of the importance of oral health, and its links to general health
- Increase knowledge of common oral conditions in older adults, and how to manage them
- Understand how to perform an oral health assessment
- Raise awareness of dental services available to assist older adults

Oral health is important

Maintaining oral health brings benefits in terms of self-esteem, dignity, social integration and nutrition.

Poor oral health can lead to pain and tooth loss, and can negatively affect self-esteem and the ability to eat, laugh and smile.



Oral health for adults in care homes

NICE guideline [NG48] Published date: July 2016

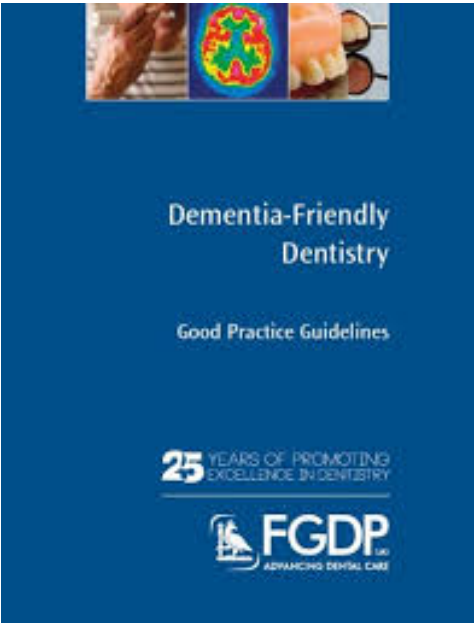
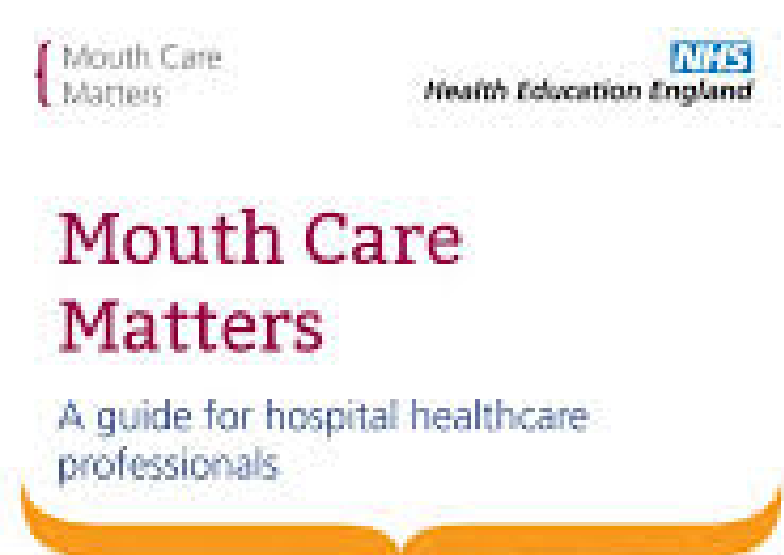
GuidanceTools and resourcesEvidenceHistory

OverviewRecommendationsTerms used in this guidelinePutting this guideline into practiceContextThe committee's discussionRecommendations for research

Guidance

- NICE interactive flowchart - Oral health for adults in care homes
- Quality standard - Oral health in care homes

This guideline covers oral health, including dental health and daily mouth care, for adults in care homes. The aim is to maintain and improve their oral health and ensure timely access to dental treatment.



Dr Mili Doshi
MBE

In a survey of **348** patients

- *76% of patients brush their teeth twice a day at home where as only 30% do so in hospital*
- *28% were experiencing problems with their mouth*

“I had to ask for help but I only got a pink sponge and water “

“I didn’t want to bother the staff by asking them for help with my dentures”

Do doctors need training?

- **3%** of junior doctors had had training
- **0%** said they felt very confident about diagnosing oral conditions

McCanna P, Sweeney M, Gibson J, Bagg J. (2005) Training in oral disease, diagnosis and treatment for medical students and doctors in the United Kingdom. *British Journal of Oral and Maxillofacial Surgery* 43(1):61-64.



Mouth Care Matters

A guide for hospital healthcare
professionals **Second Edition**



Mouth Care Matters

Toolkit for Improving Mouth
Care in Hospitals





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Working together
*for the oral health care
of older adults*



Register / Login



Demographic changes

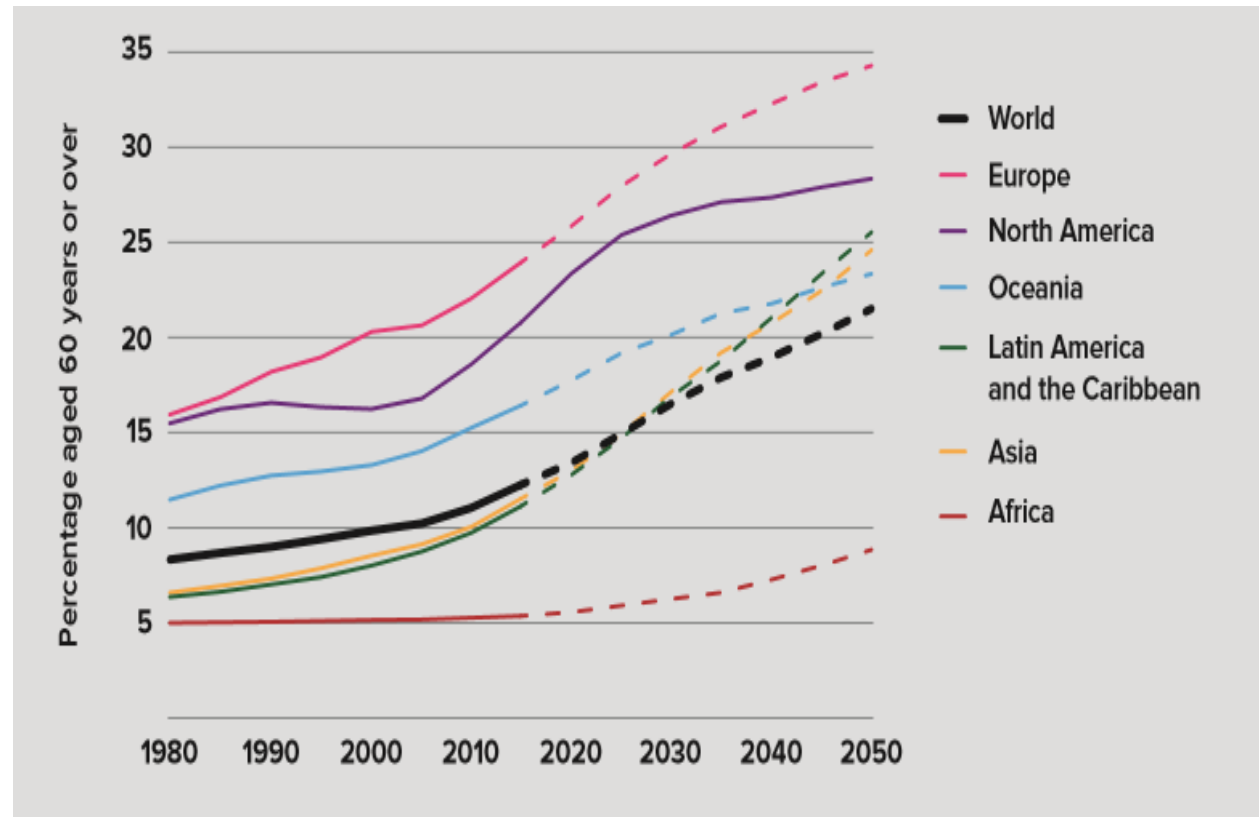
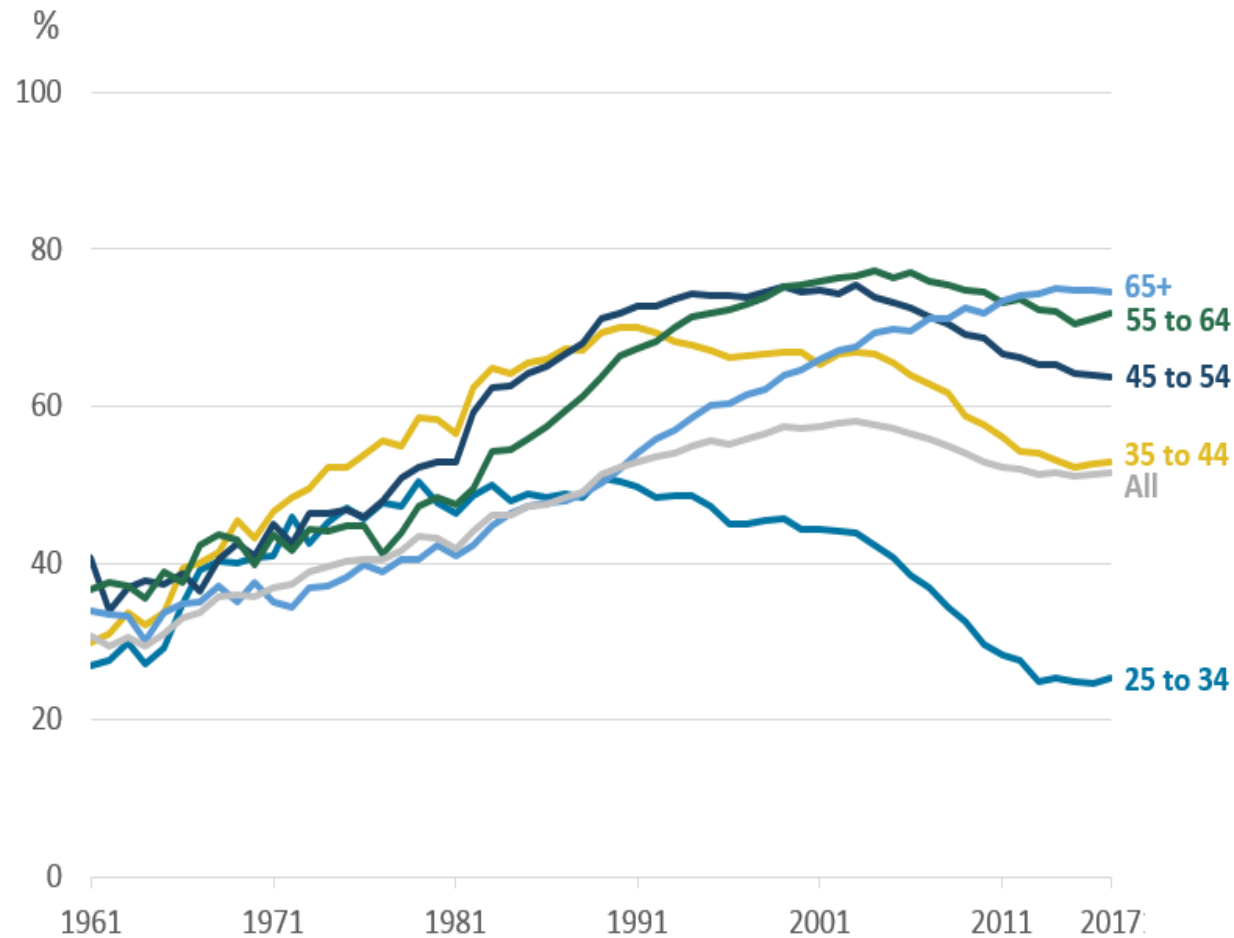
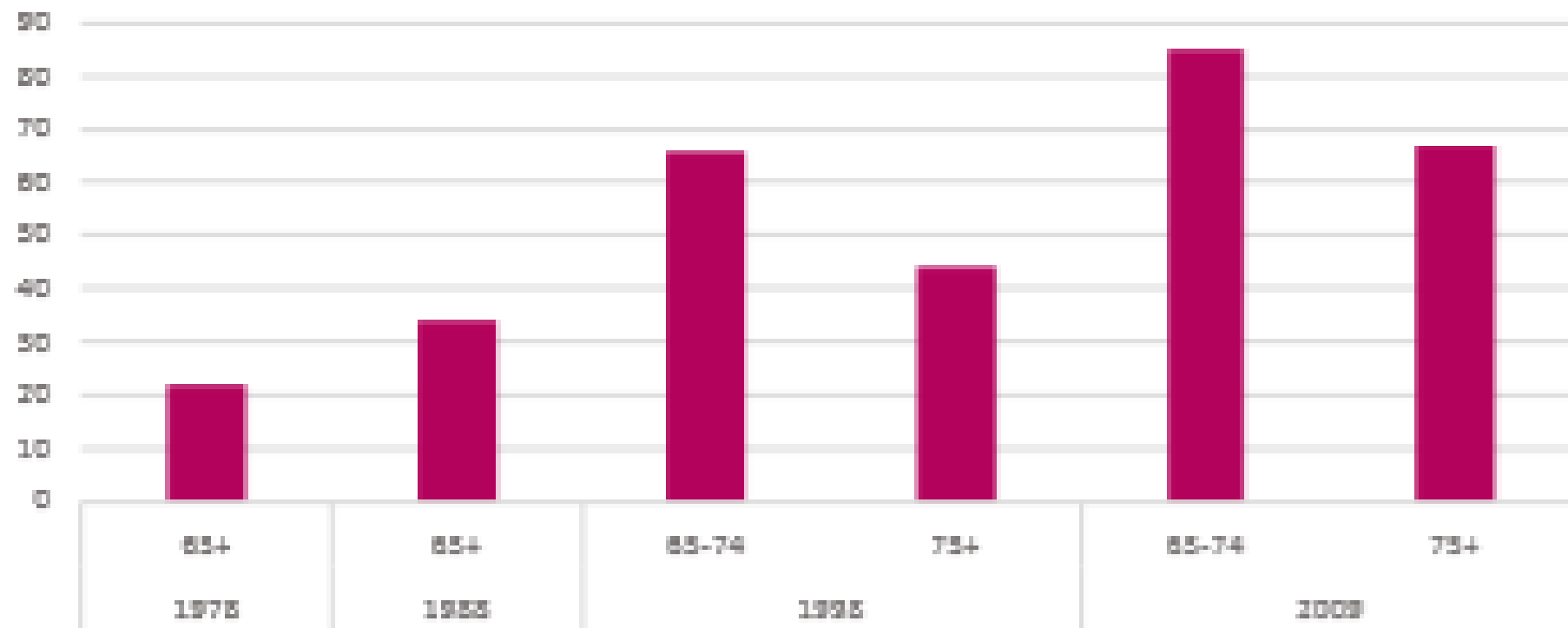


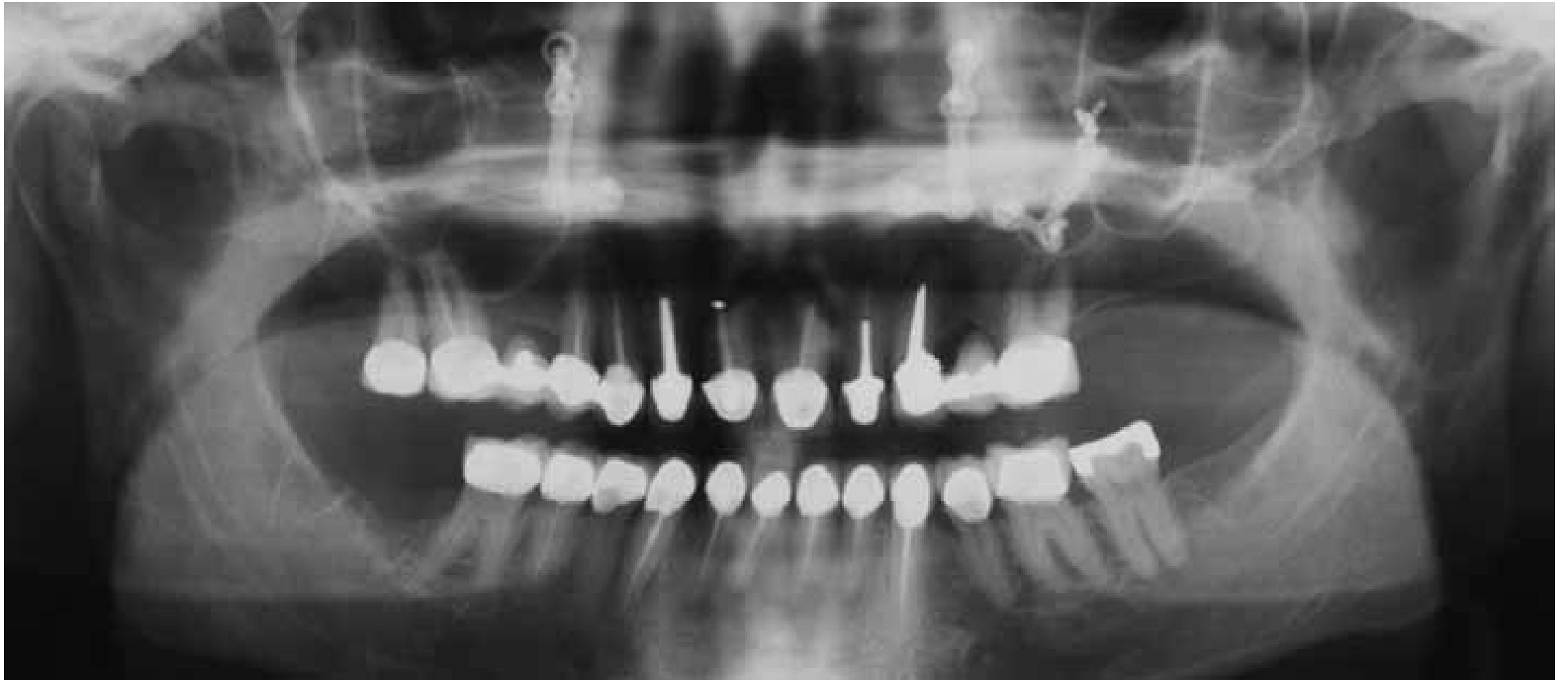
Figure 1: Percentage of over-65s retaining some natural teeth





Those who do retain a functional dentition..

The heavy metal generation



Risk factors for dental disease in older adults

✓ **Difficulties maintaining oral hygiene**

- Reduced manual dexterity
- Lower tactile thresholds
- Impaired vision,
- Cognitive impairment, especially dementia
- Depression
- Poor carer knowledge/attitude towards assisted brushing

✓ **Dry mouth**

- Side effect of polypharmacy
- Side effect of certain medical conditions

✓ **High sugar intake**

- Sugar containing liquid medications
- Sugar based supplements to maintain weight/calories

You seen an older patient who complains of bleeding gums and loose teeth. On quick glance in the mouth, you see the following. The likely diagnosis is:?



1. Oral Cancer
2. Dental Decay (dental caries)
3. Advanced gum disease (periodontal disease)
4. Oral ulceration

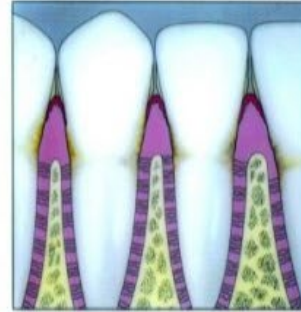
Periodontal disease (periodontitis)

- A chronic inflammatory disease of bacterial aetiology that affects the supporting tissues around teeth
- One of two significant global burdens of oral disease and the sixth most prevalent disease of mankind.

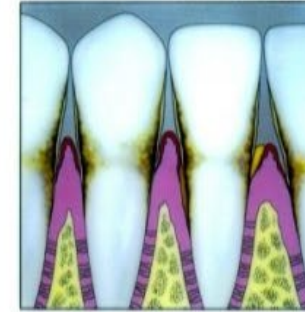
Healthy Gingiva



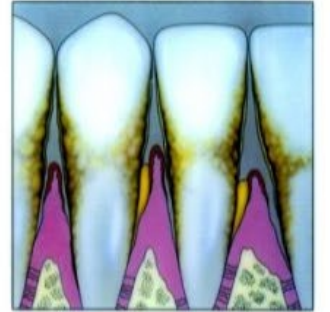
Gingivitis



Periodontitis



Advanced Periodontitis



Symptoms of periodontal disease

- Bleeding gums
- Red, inflamed, sore gums
- Halitosis
- Bad taste
- Loose teeth
- Teeth that move
- **Hardly ever any significant pain complaints**

Risk/modifying factors for periodontal disease

- Poor toothbrushing
- Diabetes (associated with a variety of defects in host defense)
- Tobacco use (effects of smoking on host defence mechanisms)
- Genetics
- Poor nutrition
- Stress
- Pregnancy
- *Anything else that reduces host defense*

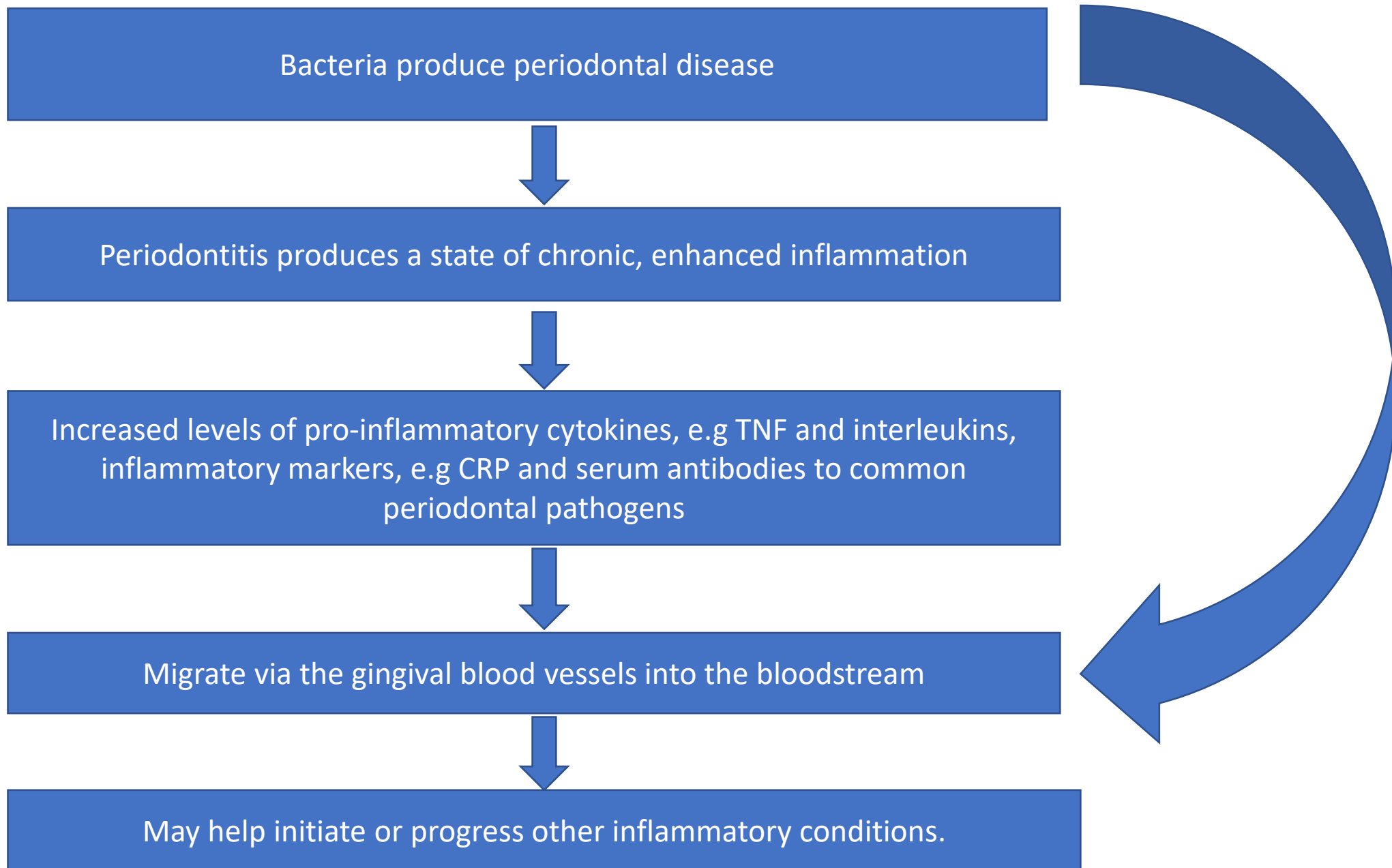
Periodontal disease in older people

Age	Percent with periodontal pocketing >4mm
All	45
65-74	60
75-84	61
85+	47

More recent research about periodontitis

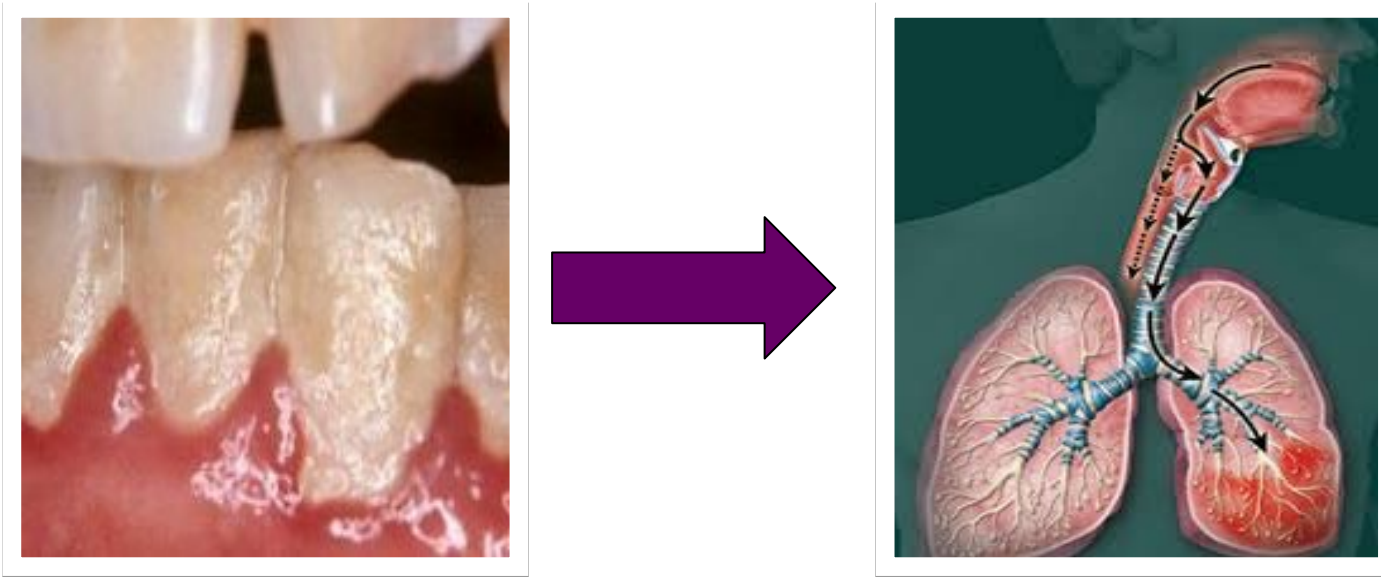
Modifying or initiating factor for certain systemic conditions

- Diabetes
- Cardiovascular disease
- Dementia
- Rheumatoid arthritis
- Chronic renal failure
- Pre-term birth



Aspiration pneumonia and oral pathogens

- Hospital acquired pneumonia
- Ventilator assisted pneumonia
- Community acquired pneumonia



What advice would you give this patient who complains of bleeding on brushing?

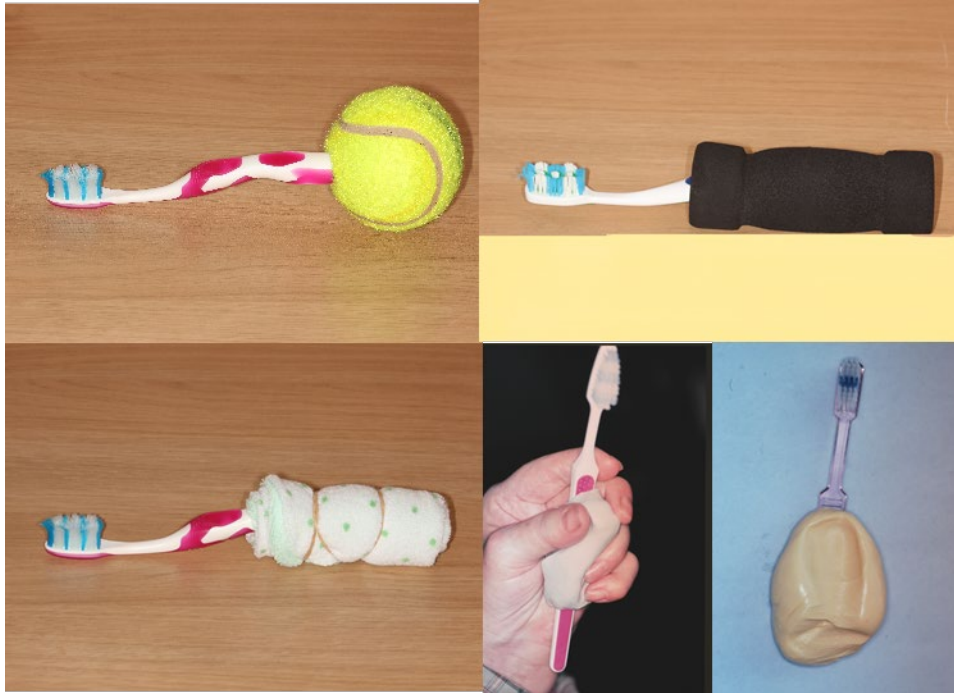


1. Keep brushing for two minutes twice daily and see your dentist
2. Only use mouthwash till you can see your dentist – brushing will make your gums bleed more
3. Keep brushing for two minutes but use a soft toothbrush and avoid the areas which are bleeding till you can see your dentist

Generic advice for prevention of gum disease

- Brush gum line and each tooth twice daily - this can initially exacerbate bleeding but will reduce with continued, efficient brushing
- Use a medium toothbrush with a small head – ideally battery powered.
- Clean daily between the teeth, using either floss or interdental brushes
- Consider chlorhexidine mouthwash for patients at high risk of aspiration pneumonia
- Do not smoke
- See the dentist as soon as possible
- If in pain (as an inpatient) refer to dental or local maxfac teams

But what about those who cant..



Dental caries (Dental decay)

A process caused by the action of microorganisms on fermentable carbohydrates in the diet, resulting in demineralisation of tooth tissue.

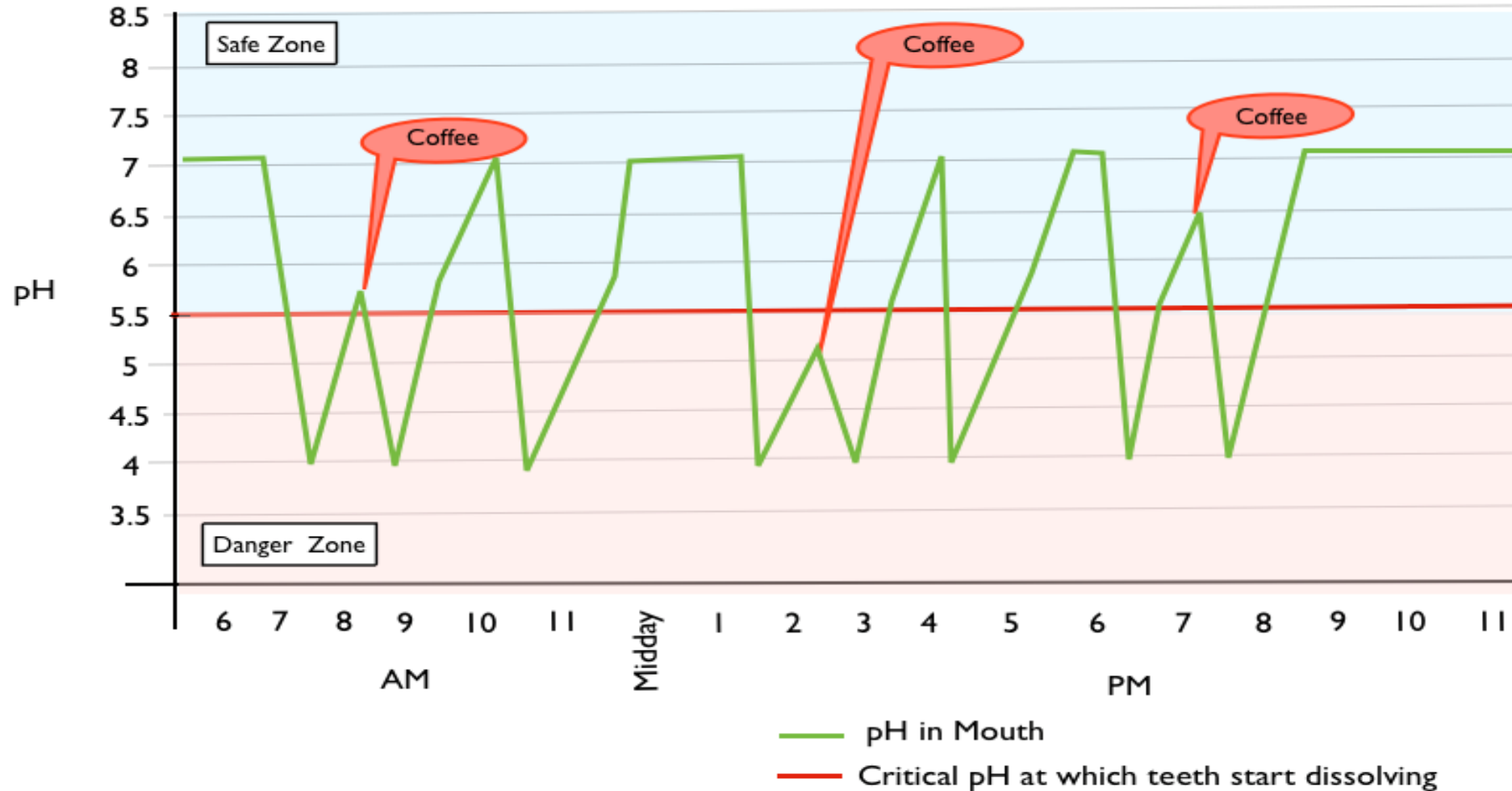
The other significant burden of oral disease worldwide.

Is a reduction in the amount or frequency of sugar intake more important when it comes to preventing dental caries?

- Amount
- **Frequency**
- Both are equally important

Aetiology

A Less Healthy Stephan Curve



For those who need the sugar



A common mouth problem
in older adults?



Dry mouth (Xerostomia)

Dry mouth Signs & symptoms

Dry/sticky mouth

Food/saliva debris

Smooth/cobblestoned tongue

Mouth is red and inflamed

Sore/painful





ADVICE

Suggest

- Regular sips of water
- Saliva stimulants
- Sugar free gum
- Artificial saliva substitutes
- If cause is due to medications – then a medical consultation is required
- Chronic dry mouth is a risk factor for tooth decay – brush twice daily with fluoride toothpaste (sodium lauryl sulphate free) and use fluoride mouthwash after meals
- Seek advice from a dentist for long term oral care management

Ulcers

Causes include:

Trauma

Infection

Unknown

Anaemia /haematinic
deficiency

Cancer



Management of ulcers

Saline mouth rinses

Topical anti-inflammatory spray or mouth rinse

Remove cause of trauma (may need dentist)

Maintain oral intake

Refer if ulcers present for more than two weeks

Carcinoma

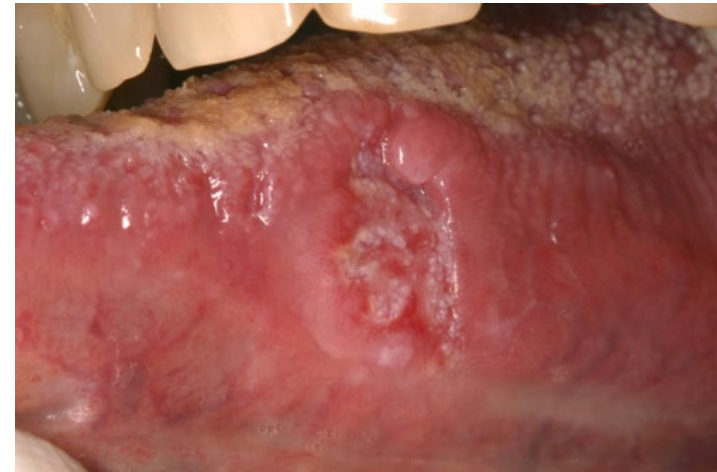
Most common intra-orally:
Squamous cell carcinoma
Basal Cell Carcinoma

Risk Factors:

- Smoking
- Alcohol

Most commonly male 50-60s

Urgent referral – 2WW



Candidiasis

Fungal infection caused by candida

Can cause discomfort, pain and leads to problems with swallowing

Most commonly affects tongue and buccal mucosa



Candidiasis

Risk factors:

- Immunocompromised
- Steroid use – systemic or topical
- Antibiotic usage
- Poor denture hygiene
- Poorly fitting dentures

Treatment:

Topical anti-fungals, such as nystatin

Systemic antifungals, such as miconazole

Denture hygiene

Constructing new dentures



Denture hygiene



Clean dentures in the morning and at night. Do this over a sink of water or towel to reduce the risk of breaking if dropped.



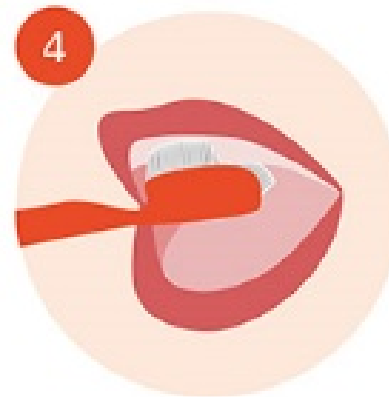
Use mild liquid soap on a soft toothbrush or denture brush.



Don't use toothpaste to clean dentures



Brush all surfaces of the denture well. Rinse with cold water.



Also clean the gums and tongue using a soft toothbrush in the morning and at night.



Take dentures out before you go to sleep at night. Keep cleaned dentures in a cup of fresh cold water, or in a clean dry container overnight.

Have dentures checked regularly by an oral health professional to make sure they still fit and work well.

If the patient has oral thrush, soak in chlorhexidine (0.2%) mouthwash for 15 minutes twice a day, rinse thoroughly and encourage the patient to leave the denture out whilst the mouth heals

Denture loss

- 11 Trusts reported losing **695** dentures the last 5 years
- 7 Trusts reported financial reimbursements of **£357,672** over the last 5 years
- Highest amount reimbursed for a single denture was **£2,200**

J. Mann & M. Doshi (2017) *An investigation into denture loss in hospitals in Kent, Surrey and Sussex* *BDJ* **223**, 435–438 (2017)
doi:10.1038/sj.bdj.2017.728



Denture loss

- What to do:
- **Staff training**
- **Label dentures**
- **Denture pots**
- **Raise awareness**



Tooth Wear

Pathological non-
cariious loss of
tooth tissue



Tooth Wear

Exacerbated by acid:

- Extrinsic: fizzy drinks, fruit juices, lots of citrus fruits
- Intrinsic: Gastro-oesophageal reflux disorder, eating disorder

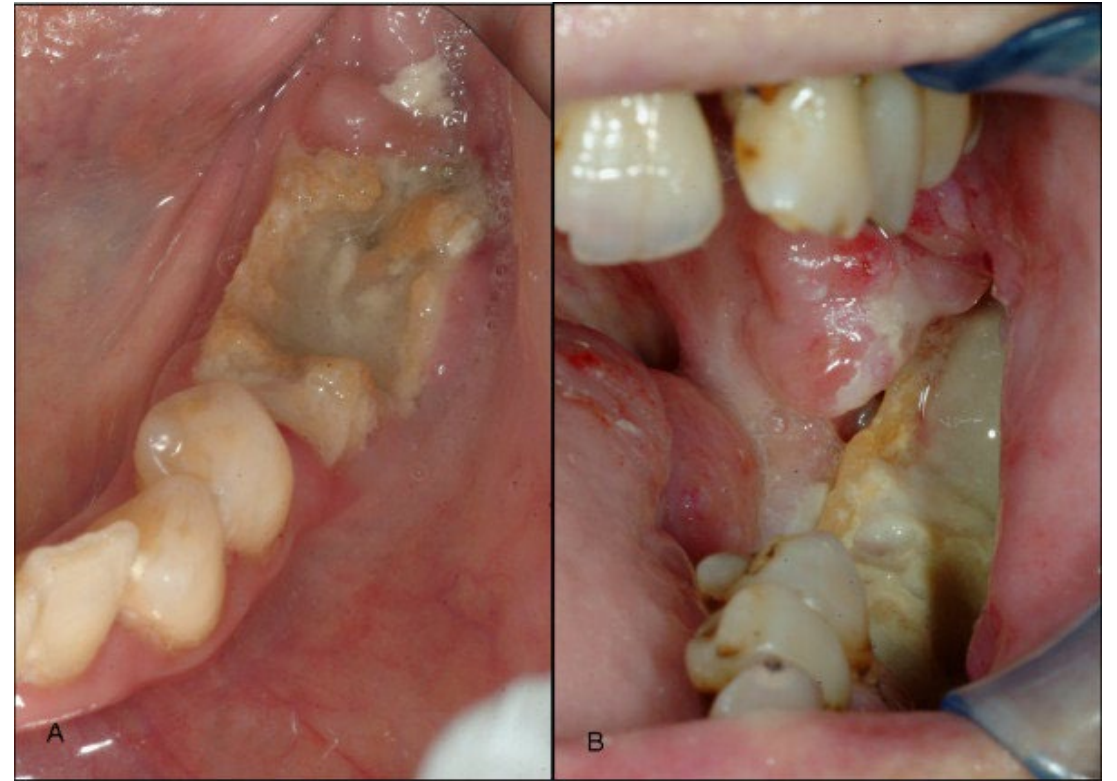
Attrition, Erosion, Abrasion

Can result in increased sensitivity and pain, loss of vitality leading to pain/infection

Management: ?aetiology and address this, high fluoride toothpaste

MRONJ

- Medication related osteonecrosis of the jaw
- Related to bisphosphonates, denosumab
- Risk factors:
 - Dental extractions
 - Poorly fitting dentures
 - Trauma – falls
 - Spontaneous



Difficulties with Treatment



- Access
- Communication
- Cooperation
- Complicated by co-morbidities
- Anxiety
- Levels of frailty

NICE/Mouth Care Matters Assessment Tools

Oral health assessment tool

Date:

Scores – You can circle individual words as well as giving a score in each category
(* if 1 or 2 scored for any category please organise for a dentist to examine the resident)
0 = healthy 1 = changes* 2 = unhealthy*

Lips:

Smooth, pink, moist	0
Dry, chapped, or red at corners	1
Swelling or lump, white, red or ulcerated patch; bleeding or ulcerated at corners	2

Oral cleanliness:

Clean and no food particles or tartar in mouth or dentures	0
Food particles, tartar or plaque in 1-2 areas of the mouth or on small area of dentures or halitosis (bad breath)	1
Food particles, tartar or plaque in most areas of the mouth or on most of dentures or severe halitosis (bad breath)	2

Saliva:

Moist tissues, watery and free flowing saliva	0
Dry, sticky tissues, little saliva present, resident thinks they have a dry mouth	1
Tissues parched and red, little or no saliva present, saliva is thick, resident thinks they have a dry mouth	2

Dental pain:

No behavioural, verbal, or physical signs of dental pain	0
There are verbal and/or behavioural signs of pain such as pulling at face, chewing lips, not eating, aggression	1
There are physical pain signs (swelling of cheek or gum, broken teeth, ulcers), as well as verbal and/or behavioural signs (pulling at face, not eating, aggression)	2

Tongue:

Normal, moist roughness, pink	0
Patchy, fissured, red, coated	1
Patch that is red and/or white, ulcerated, swollen	2

Natural teeth Yes/No:

No decayed or broken teeth or roots	0
1-3 decayed or broken teeth or roots or very worn down teeth	1
4+ decayed or broken teeth or roots, or very worn down teeth, or less than 4 teeth	2

Dentures Yes/No:

No broken areas or teeth, dentures regularly worn, and named	0
1 broken area or tooth or dentures only worn for 1-2 hours daily, or dentures not named, or loose	1
More than 1 broken area or tooth, denture missing or not worn, loose and needs denture adhesive, or not named	2

Gums and tissues:

Pink, moist, smooth, no bleeding	0
Dry, shiny, rough, red, swollen, 1 ulcer or sore spot under dentures	1
Swollen, bleeding, ulcers, white/red patches, generalised redness under dentures	2

Organise for resident to have a dental examination by a dentist
Resident and/or family or guardian refuses dental treatment
Complete oral hygiene care plan and start oral hygiene care interventions for resident
Review this resident's oral health again on date:

With kind permission of the Australian Institute of Health and Welfare (AIHW). Source: AIHW Caring for oral health in Australian residential care (2009).
Modified from Kayser-Jones et al. (1995) by Chalmers (2004).

TOTAL:

SCORE: 16

{ Mouth Care Matters

Health Education England

Mouth Care Assessment & Record

To be completed for every patient within 24 hours of admission

1. Has the patient got:

Toothbrush	Y <input type="checkbox"/>	N <input type="checkbox"/>	Provided <input type="checkbox"/>
Toothpaste	Y <input type="checkbox"/>	N <input type="checkbox"/>	Provided <input type="checkbox"/>
Upper denture	Y <input type="checkbox"/>	N <input type="checkbox"/>	At home <input type="checkbox"/>
Lower denture	Y <input type="checkbox"/>	N <input type="checkbox"/>	At home <input type="checkbox"/>
Denture pot (named)	Y <input type="checkbox"/>	N <input type="checkbox"/>	At home <input type="checkbox"/>

2. Level of Support

Patient is fully dependent on others for mouth care	<input type="checkbox"/>
Some assistance required e.g. unable to get to sink	<input type="checkbox"/>
Patient is fully independent and can walk to sink	<input type="checkbox"/>

Patients with NO TEETH, NIL BY MOUTH or DYSPHAGIA still require REGULAR MOUTH CARE

3. Does the patient have any pain or discomfort in the mouth? Y ☐ N ☐ why?

Look in patient's mouth with a **LIGHT SOURCE**. Carry out **WEEKLY** assessment.
Mark as **L**, **M** or **H** in the white box under today's date & sign.

	LOW RISK (L)	MEDIUM RISK (M)	HIGH RISK (H)*
Lips	<ul style="list-style-type: none"> • Pink & moist 	<ul style="list-style-type: none"> • Dry/cracked • Difficulty opening mouth 	<ul style="list-style-type: none"> • Swollen • Ulcerated
Action	None	Dry mouth care	Refer to DOCTOR
Tongue	<ul style="list-style-type: none"> • Pink & moist 	<ul style="list-style-type: none"> • Dry/fissured/shiny • Coated tongue • Secretions on tongue 	<ul style="list-style-type: none"> • Looks abnormal • White coating • Very sore/ulcerated
Action	None	Dry mouth care, brush tongue	Refer to DOCTOR
Teeth/gums Advise the patient to visit dentist on d/c if problems with teeth not requiring urgent hospital treatment	<ul style="list-style-type: none"> • Clean • No broken/loose teeth 	<ul style="list-style-type: none"> • Unclean • Broken teeth (no pain) • Bleeding/inflamed gums 	<ul style="list-style-type: none"> • Severe pain • Facial swelling
Action	2 x daily tooth-brushing	2 x daily tooth-brushing & clean the mouth	Refer to DOCTOR
Cheeks/palate/under tongue An ulcer present for more than 2 weeks must be referred to medics	<ul style="list-style-type: none"> • Clean • Saliva present • Looks healthy 	<ul style="list-style-type: none"> • Mouth dry • Sticky secretions • Food debris • Ulcer <10 days 	<ul style="list-style-type: none"> • Very dry/painful • Ulcer>10 days • Widespread ulceration • Looks abnormal
Action	None	Clean the mouth/dry mouth care/ulcer care	Refer to DOCTOR
Dentures Advise the patient to visit their dentist on discharge if the denture is loose	<ul style="list-style-type: none"> • Clean • Comfortable 	<ul style="list-style-type: none"> • Unclean • Loose • Patient will not remove 	<ul style="list-style-type: none"> • Lost • Broken and unable to wear
Action	Clean daily	Denture cleaning, fixative, encourage daily removal to allow mouth to breathe	DATIX if lost or refer to dental team if broken
<p>For patients who are unable to communicate or cooperate with a mouth care assessment, signs of mouth related problems may include not eating/drinking, facial swelling & behavioural changes.</p>			
			Signature:

Daily Record

AC: Assessment completed **PR:** Patient refused (>3 days explain actions) **BP:** Bowl provided **R:** Referral (explain actions)
DC: Denture care **TB:** Tooth brushing **DMC:** Dry mouth care
NB: 'Mouth care given' is not acceptable documentation

Date	Time	Action	Signature	Print name

Mouth care assessment guide

Lips



Pink & moist



Dry, cracked, difficulty opening the mouth



Swollen, ulcerated

Mouth care assessment guide

Tongue



Pink & moist



Dry, fissured, shiny



Looks abnormal, white coating, very sore/ulcerated

Mouth care assessment guide

Teeth & Gums



Clean, teeth not broken or loose



Unclean, broken teeth (no pain),
bleeding/inflamed gums



Severe pain, facial swelling

Mouth care assessment guide

**Cheeks,
Palate &
under the
Tongue**



Clean, saliva present, looks healthy



Mouth dry, sticky secretions, food debris, ulcers <10 days



Very dry/painful, ulcers >10 days, widespread ulceration, looks abnormal

Mouth care assessment guide

Denture



Clean & Comfortable



Unclean, loose,
patient will not remove



Lost

COVID-19. Where does that leave oral health?



Barriers to care

- A- Access
- C- Communication
- C- Clinical
- E- Education
- S-Side effects
- S- Systemic effect

ACCESS

➤ To dental services

➤ To oral hygiene aids

➤ Service provision and availability

General Dental Services	Community Dental Services	Dental Hospital
Everyday general dentists	More specialised- acceptance of complex needs	Very specialised
Some with additional skills in treatment of more complex patients	Services offered varied around the UK	Wider range of services, specialised equipment (hoists/bariatric chairs/tippers)
Less likely to have specialised equipment/sedation	Sedation/Domiciliary/mobile units	Research and Teaching
	Day case GA	Day case and inpatient GA access
	Still primary care	Secondary Care- more complex patients

COMMUNICATION

- Anxiety and lack of awareness
- Restrictions in face to face contact
- Recognising pain/discomfort



'The products that they use aren't fit for purpose'

'I have issues getting to the bathroom to brush my teeth'

'I had no-where to keep my denture so I put it under my pillow'

'The nurses are too busy so I didn't ask for help'

'I had to ask for help but I only got a pink sponge and water'

Clinical

- Complications of comorbidities
- Increased hospital stay and risk of hospital acquired infections
- Aspiration pneumonia
- Oral care in hospital- PHE Mouth care for patients with confirmed or suspected COVID 19



Mouth care for patients with confirmed or suspected COVID-19

Supporting seriously ill patients' mouth care is an important part of overall patient care. If oral hygiene is neglected, the mouth rapidly becomes dry and sore. The aim of good mouth care for patients in hospital is to maintain oral cleanliness, prevent additional infection and reduce the likelihood of developing bacterial pneumonia. On admission include the mouth in the patient's assessment and care plan (an example of a form to record this can be found at the URL below).

This guidance outlines mouth care for hospitalised adults and children with confirmed or suspected coronavirus (COVID-19) who are non-ventilated, ventilated and those having step down or end of life care.

When providing mouth care for patients with COVID-19 wear personal protective equipment (PPE) to prevent contact and droplet transmission. This means wearing disposable gloves, plastic apron, eye protection and a fluid resistant surgical mask. Delivering mouth care is not an aerosol generating procedure. However, the environment you are working in may require the use of enhanced PPE (for example if working where patients are ventilated).

Mouth care for non-ventilated patients

For non-ventilated patients:

- if patients are having oxygen via a face mask, check with the nurse in charge before removing this for the time needed to carry out mouth care
- assess the patient and consider if they can brush their own teeth, or if you need to help them to keep their mouth moist and clean
- these patients are more likely to cough when performing mouth care, be gentle, stand to the side or behind them, take breaks to allow the patient to rest and swallow
- if possible, sit the patient upright
- if the patient has a dry mouth, encourage sips of fluid (unless nil by mouth), hydrate with a toothbrush dipped in water or apply available dry mouth product to their tongue, inside of their cheeks and roof of their mouth
- make sure the patient's lips are kept moist (with products available) particularly before cleaning
- if the patient can brush their own teeth give them a soft, small headed toothbrush with a smear of toothpaste (use non-foaming toothpaste if available)
- do not use an electric toothbrush as this may cause droplets and splash
- if the patient can spit, give the patient a disposable bowl to spit into
- if the patient is unable to spit and bedside suction is available, and you are trained to use it, then use gentle oral suctioning to remove excess saliva and toothpaste

Non-ventilated patients:

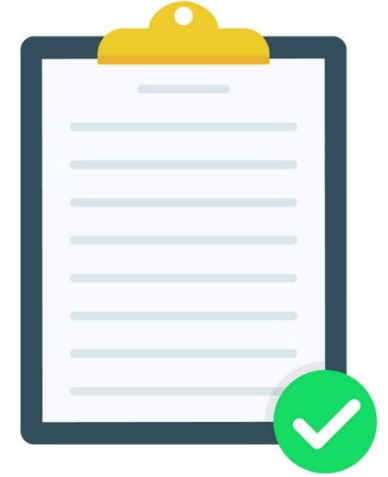
- Assess the patient and consider if they can brush their own teeth, or if you need to help them to keep their mouth moist and clean
- Patients are more likely to cough, stand to the side or behind them, take breaks to allow the patient to rest and swallow
- If possible, sit the patient upright
- If the patient has a dry mouth- HYDRATE
- Make sure the patient's lips are kept moist
- Do not use an electric toothbrush as this may cause droplets and splash
- If the patient is unable to spit and bedside suction is available, then use gentle oral suctioning

Mouth care for ventilated hospital patients - under the direction of the nurse in charge

- Check with the nurse in charge that this is appropriate
 - Work under the direction of the nurse in charge who will make sure that the endotracheal tube cuff is inflated to prevent aspiration
 - Moisten the patients mouth with chlorhexidine mouthwash
 - Keep the patients lips moist with regular applications of products available
 - Dentures are likely to have been removed and should be stored dry in a named pot
-
- FOCUS ON PREVENTION

EDUCATION

- Training
- Knowledge of carers/family
- Referral pathways



SIDE EFFECTS

- Multidrug therapy
- Antiviral medications
- Fatigue, breathlessness



SOCIAL

- Lack of interaction with others
- Isolation



CONCLUSION

- Key health professionals in acute and community care settings should receive training in oral health.
- Preventative advice on maintaining good oral health should be easily available for older persons
- Government, health services, local authorities, care providers and the oral health profession should work together to develop a strategy for improving access to dental services for older people
- Demand for dental services will increase as the population grows and ages
- Good oral health is an essential part of older people's health care.
- There are also known links between poor oral health care and pneumonia and heart disease.
- Maintaining oral health care helps to support these patient's wellbeing and dignity.

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- Mouth care for hospitalised patients with confirmed or suspected COVID-19- Public Health England 2020
- Acknowledgements
- Dr Mili Doshi
- Dr Shazia Kaka
- Dr Bryan Kerr