

BDJ Team CPD



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Article: Prevention of oral diseases for the older person (Part 1)



Prevention of oral diseases for the older person (Part 1)

Adapted from a chapter of a *BDJ Clinician's Guide*, **Rosally Davies** and **Mili Doshi** look at the main reasons for oral health deterioration in older people and its impact, and the role of dental care professionals.

Abstract

Older adults often experience poorer levels of oral health than younger adults, especially if they have become dependent on a third party to support their daily oral care routine. The deterioration of oral health does not need to be a part of the ageing process. Most oral diseases can be largely preventable with the daily removal of dental plaque that forms on teeth and dentures, using a fluoride toothpaste, eating a healthy diet and reducing oral tobacco consumption. The dental team have a duty of care to ensure that older people receive evidence-based and health preventative advice tailored to the individual, taking into account individual risk factors that can increase with age. This can include the clinical application of topical fluoride and minimally invasive dentistry. Older people at an increased risk of poor

oral health include those with cognitive conditions, physical impairments and sensory modalities. Care home residents face particular barriers to attaining a satisfactory standard of oral care which are discussed here. Good oral health preventative practices must be established with the older person, with a focus on the prevention of progressive chronic conditions and will help to prevent the need for dental intervention later in life when treatment can be more difficult to tolerate. Inclusion of oral health prevention within health equity and legislation is necessary to improve the oral health of older people living in all health and care settings.

Introduction Prevention of oral disease should be lifelong, starting from childhood, and adapt with ageing, focusing on changes in medical health, dietary intake, cognition and normal dentition. The impact of poor oral health on the general health and wellbeing in the older population is significant, not focusing on prevention in the group is important. Caries and periodontal disease, the two most common oral health conditions, are largely preventable through interventions including

a low sugar diet, one of a fluoride toothpaste and effective daily oral hygiene. Prevention can slow down the progression of dental disease that can lead to pain and infection and the need for dental intervention later in life when people may be frailer and find treatment more difficult to tolerate. With older age, risk factors for oral disease increase, including a dry mouth, dietary changes and reduced manual dexterity.

There has been a considerable transformation in the epidemiology of dentition over the last century, with people retaining their teeth into later life due to positive oral health changes, including access to fluoride toothpaste and advances in dental dentistry.¹ The number of people wearing complete dentures has decreased and continues to do so.² Today's older population will have increasingly undergone more restorative dental care, including endosteal, crowns, bridges and implants throughout their lifetime. Recently reviewed work requires a multi-disciplinary and case register to maintain a healthy condition, together with regular reviews with dental professionals. Neurological, periodontal disease, dental cases (especially root caries) tooth surface

Table 1: Prevention statements	Secondary (disease detection)	Tertiary (restoring function and reducing impact of disease)
Primary (preventing onset of oral health of the population)	Fluoride toothpaste	Restoration of both
Oral hygiene advice	Oral health screening	Restoring missing teeth
Dietary advice	Periodontal screening	
Smoking and alcohol advice		

low, advanced tooth loss, denture-related issues, mucosal lesions and cancer are more prevalent with increasing age.³ The dental team needs to work closely with other health care professionals and care providers to raise awareness of the need for active support with mouth care and preventive dental care, and to be especially targeted in the early diagnosis stage of any chronic health condition.⁴

The first part of this chapter focuses on the main reasons for oral health deterioration in older people and its impact. The second part provides practical advice on supporting older people with their oral care.

Impact of poor oral health on general health and wellbeing in older adults

Understanding of the consequences of poor oral care amplifies the importance of good oral hygiene and dental care. Poor oral health can cause ongoing dental pain and infection and lead to problems with eating and drinking, resulting in nutritional deficiencies and increasing frailty.⁵ Poor dental appearance, for example, swollen gums, but or B-fitting dentures, or halitosis, can result in low self-esteem, particularly in social situations centred around food.⁶ Some older people may find it difficult to communicate when they have advanced dementia, and oral care can lead to behavioural changes, including increased food intake, changes in sleeping habits and increased agitation and restlessness.⁷

Oral health prevention and the role of dental professionals Prevention aims to stabilise either the onset or the progression of a disease or restore function lost due to disease. The framework of primary, secondary and tertiary prevention according to the stage of disease that is small and Clark, prevention in the '100s' has been widely used to help attain this goal and can be applied to oral health (Table 1). Primary prevention

includes the provision of information to help individuals make informed choices about their health-related behaviour and strategies to reduce the risk factors associated with developing disease. Secondary prevention strategies include those that detect disease early and intervene to prevent its progression. Tertiary prevention strategies include those that reduce morbidity by restoring function and reducing disease-related complications. All members of the dental team have an important role in delivering patient-centred oral health preventative messages. Most older adults will continue to be able to carry out effective oral hygiene as they get older independently, however, they should still be advised on age-related changes in the mouth. For example, periodontal disease may mean that gaps between teeth become larger and there is a greater need for interstitial flossing with interdental brushes rather than using dental floss.

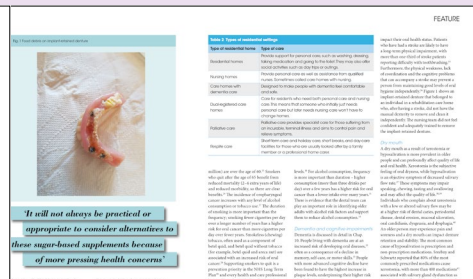
All members of the dental team have an important role in delivering patient-centred oral health preventative messages*

Oral health prevention can be provided verbally and in written form for older people considering various impairments and memory issues. There has been an increase in the use of digital technology, including more than 300 apps as part of health communication, and identifying (the use of health information technology and telecommunication) has an increasing role in delivering preventative oral care advice to the older population where regular access to dental clinics can be a problem.⁸

There is strong evidence that fluoride can

reduce the incidence of dental caries, and while most of the research to date has been conducted in children and younger adults, there is growing evidence of the benefits of fluoride for prevention in older people. The quarterly application of fluoride varnish in conjunction with daily oral cleaning has been shown to reduce the risk of developing caries in older people in care homes.⁹ High fluoride toothpaste (5,000 ppm) has been found to be more effective than standard toothpaste in reducing root surface caries and can be considered an alternative option when it is not possible to access a tooth, for example, poor compliance with dental interventions.¹⁰ There has been increasing interest in oral disease fluoride (MFD) as a preventative treatment to arrest caries, mainly root caries in older people.¹¹ Treatment with MFD requires minimal instrumentation and application of a low frequency rather than other caries prevention materials. It can be particularly beneficial in older people who face increased challenges accessing dental services, or for those with frailty to avoid more invasive dental treatment. In all cases, fluoride should only be prescribed or applied when there is a benefit in doing so, for example, in an older person with a dry mouth and caries lesions. Topical fluoride has been suggested to reduce caries as it is bactericidal and can inhibit Streptococcus mutans, however, the evidence for this is weak or not applicable to root caries.¹²

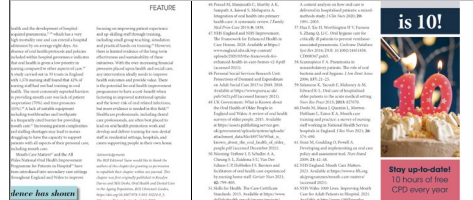
(Continued on page 22)



It will not always be practical or appropriate to consider alternatives to these sugar-based supplements because of more pressing health concerns*

Alternative sweeteners are widely available and used in a variety of products, including toothpaste and oral hygiene products. While they may be used as a substitute for sugar, they do not provide the same oral health benefits as natural sugars. Some alternative sweeteners, such as xylitol, have been shown to have beneficial effects on oral health, but others, such as sucralose, may have negative effects. The dental team should be aware of the potential risks and benefits of alternative sweeteners and advise patients accordingly.

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There has shown oral admission, oral plaque [and] gingival inflammation...*

Research has shown that oral admission, oral plaque, and gingival inflammation are common conditions in older adults. These conditions can lead to a range of oral health problems, including pain, infection, and difficulty eating and drinking. The dental team should be aware of the signs and symptoms of these conditions and advise patients accordingly.

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1. Which category of prevention strategies include those that reduce morbidity by restoring function and reducing disease-related complications?

- A. primary
- B. community
- C. enforced
- D. tertiary

2. Which level of fluoride in toothpaste has been found to be more effective in reducing root surface caries?

- A. 250 ppm
- B. 1,000 ppm
- C. 5,000 ppm
- D. 10,000 ppm

3. Oral nutritional supplements:

- A. are often advised for older people who are unable to meet their dietary requirements through oral diet alone
- B. come in various types, including juices, milkshakes, high energy powders, soups and cereal bars
- C. can have a high sugar content and can increase the risk of developing dental caries
- D. all of the above

4. A growing body of evidence has shown that following hospital admission:

- A. there is an increase in dental plaque, gingival inflammation and subsequent deterioration in oral mucosal health
- B. oral health improves
- C. there is very little alteration in a patient's oral health
- D. the communication between medical and dental personnel is enhanced

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