Why you should read this article:

- To refresh your knowledge of how to undertake effective mouth care in a range of patients
- To learn about the consequences of suboptimal oral hygiene
- To understand the requirements for providing mouth care in people who are intubated, neurodivergent people and/or those with cognitive impairment or learning disabilities

How to undertake effective mouth care in adults who require support

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Rationale and key points

Optimal oral health is essential at all stages of life, to enable individuals to eat and speak without discomfort, and to socialise, thereby contributing to their general health, well-being and quality of life. Effective daily mouth care for people who require support is essential to prevent deterioration in oral health and general health and should be part of their overall care.

This How to article details the preparation, equipment and procedure involved in undertaking mouth care in adults. The article also provides an overview of mouth care in patients who are intubated, neurodivergent people and/or those with cognitive impairment or learning disabilities, and those receiving end of life care. Nurses undertaking mouth care must have the knowledge and skills needed to do so safely and effectively, and work within their competence level.

- Inadequate mouth care can lead to dehydration and malnutrition, while a dry mouth creates an ideal environment for fungus or bacteria to become dominant pathogens within the oral cavity, adversely affecting the person's appetite, creating soreness within the oral cavity and leading to a general decline in health.
- Maintaining a healthy, functioning mouth and routinely removing food debris can reduce the risk of choking and/or aspiration pneumonia, particularly in people with dementia and/or dysphagia.
- All healthcare professionals should seek to promote oral health and have an understanding of the link between optimal oral health and general health, and be able to explain this to patients; it is also vital that nurses are aware of current evidence and best practice in oral hygiene.

Reflective activity

'How to' articles can help to update your practice and ensure it remains evidence-based. Apply this article to your practice. Reflect on and write a short account of:

- How this article might improve your practice when providing mouth care.
- How you could use this information to educate nursing students or colleagues about appropriate methods for providing effective, person-centred mouth care.

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IN CONTEMPORARY society, people tend to retain their teeth as they age and engage in established, life-learned, daily mouth care regimens. However, sometimes people rely on nursing or residential care staff to support or provide them with effective oral

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hygiene due, for example, to congenital or acquired disability or illness. Inadequate mouth care can lead to dehydration and malnutrition because of the person's inability to comfortably eat or drink adequate nutrition and fluids. Moreover, a dry mouth or lack of saliva creates an ideal environment for fungus, such as Candida, or bacteria, such as Streptococcus or Porphyromonas gingivalis, to become dominant pathogens within the oral cavity, which can adversely affect the person's appetite, create soreness within the oral cavity and lead to a general decline in health. Inadequate oral clearance of food and saliva debris often occurs in individuals with dysphagia, leading to increased pathogens if not regularly cleared from the mouth (Wade 2021, Weimers and Pillay 2021).

Maintaining a healthy, functioning mouth, and routinely removing food debris, can reduce the risk of choking, particularly in people with dementia and/or dysphagia. In addition, if the biofilm on the surface of the teeth or food debris within the mouth cavity are not removed, this can result in multiplication of oral bacteria, which may be aspirated into the lungs, causing aspiration pneumonia (Scannapieco et al 2022, Yoshimatsu et al 2022). Importantly, optimal oral health is linked to dignity and well-being regardless of the stage of the person's life or their healthcare condition (Glick et al 2016).

Before providing mouth care, it is essential to undertake a structured oral health assessment using a validated mouth assessment tool (National Institute for Health and Care Excellence (NICE) 2016, Hatchett 2021), such as the Brief Oral Health Status Examination (Kayser-Jones et al 1995) or the Oral Health Assessment Tool (Chalmers et al 2005). The aim of such tools is to standardise mouth care between healthcare professionals, act as an aide memoire during the oral assessment, inform mouth care planning and review (Thayaparan and Doshi 2025), identify issues that may need to be addressed by a specialist, such as a dentist, and reduce the risk of further complications, such as mouth infections, oral pain or inadequate nutritional intake (NICE 2016).

An oral assessment should also identify the following, which are important factors when providing mouth care (Hatchett 2021, Thayaparan and Doshi 2025):

- The person's level of cognitive ability and manual dexterity to undertake effective mouth care and the level of support they may need.
- The person's preferred mouth care products.
- Whether the person uses dentures.
- The person's swallowing ability.

Findings from the oral assessment must be recorded in the patient's notes and used to inform the oral care plan. Any concerns about oral risk factors indicated by the assessment should be communicated to the appropriate professional, in accordance with the recommended actions within the assessment tool. For a detailed explanation on how to undertake an oral health assessment see Hatchett (2021) and Thayaparan and Doshi (2025).

The remainder of this article assumes that the nurse has undertaken a comprehensive oral health assessment, including a structured mouth inspection, and has identified that the person requires support with mouth care.

Preparation and equipment

- Ensure you are clear about the aim of undertaking mouth care, which is to remove plaque, food debris and/or secretions from all oral surfaces and dentures. Mouth care should be carried out at least twice a day and particularly before the person goes to sleep, as saliva production, which has a lubrication and antimicrobial function, is reduced at night, while retained food debris can pose a choking hazard, particularly in people with dysphagia or dementia.
- One of the barriers to effective mouth care is the use of inappropriate equipment, particularly when undertaking toothbrushing. Therefore, it is important to gather the appropriate mouth care equipment – see Box 1 for more information on mouth care products. Follow local policy on equipment, but as a general guide you will require (Doshi et al 2021a, Hatchett 2021, Myatt 2021):
  - Personal protective equipment (PPE), including clean, disposable non-sterile gloves and an apron.
  - A clean mouth care tray or a pre-packed single-use mouth care pack (which generally contains a toothbrush, toothpaste and antimicrobial solution).
  - A small-headed or circular toothbrush (manual or electric – if electric, ensure it is fully charged) or a specialised toothbrush, such as a three-headed brush (designed to brush all tooth surfaces at one time and to reach the gum margin; beneficial in individuals who may not be able to cooperate with tooth brushing such as those with dementia or learning disabilities) or a brush with a 360° head (a small,

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soft brush that is good for mouth care in people with sore mouths such as during chemotherapy and at the end of life), and/or a denture brush. Use the person's own toothbrush if suitable or appropriate.
- Non-foaming fluoride toothpaste, or the patient's preferred product if suitable and appropriate.
- A silicone oral hygiene mouth swab.
- A labelled denture container.
- Fragrance-free liquid soap for cleaning dentures.
- Denture adhesive.
- Access to clean running water.
- Paper towels or an absorbent pad and tissues.
- A jug of water, a cup and small bowl.
- Moisturiser for the lips, such as petroleum jelly.
- Water-based moisturising gel to rehydrate the oral tissues.
- A clinical waste disposal bag.

Procedure

1. Perform hand hygiene, in line with local policy, when you enter the patient's area.
2. Explain to the patient that you are offering to support them to undertake oral hygiene, describe what this will entail (for example toothbrushing and/or cleaning dentures) and gain their informed consent to do so. If they do not have capacity to consent, follow the best interests procedure in line with the Mental Capacity Act 2005 (Office of the Public Guardian 2020).
3. To ensure privacy, close the door or draw the curtain around the patient's bed, or support them to move to the bathroom.
4. Don the gloves and apron, adhering to local policy on infection prevention and control.
5. Ensuring the patient is comfortable, ask or assist them to sit upright in a chair or bed (where possible) with their neck supported and the head positioned to enable safe access to the mouth and to reduce the risk of aspiration.
6. Ensure that all necessary equipment is within your reach and that of the patient. Use the absorbent pad or paper towels to protect the patient's neck area and clothing.
7. Apply a thin film of petroleum jelly to the patient's lips, using a gloved finger, to prevent cracking. Ask the patient's permission to do this first.
8. Ask the patient to remove any dentures, or assist them to do so if needed, and place them in a labelled denture container. To remove the dentures, slide a gloved finger by the side of the denture to help break the retention seal or lift the clasp away from a natural tooth.
9. Offer the patient some clean water to rinse their mouth, particularly if dentures have been removed.
10. Stand to the side of the patient and explain which area of the mouth you are going to clean.
11. If using a silicone oral hygiene mouth swab to remove food, other debris or excess secretions, tug the head of the swab before inserting it in the patient's mouth to ensure that it is not loose. Hold the handle between your thumb and forefinger, rolling the stick to engage secretions.
12. For toothbrushing, apply a pea-sized amount of non-foaming fluoride toothpaste (if possible) to the back of your gloved hand and push the toothbrush bristles into the paste; this helps to prevent the toothpaste from falling to the back of the patient's throat.
13. If an electric toothbrush is used, use a 'hand-over-hand' technique so that the patient retains some control over the motions.
14. Mentally divide the mouth into quarter areas. Using small, circular motions, brush each area at a 45° angle, concentrating particularly on the tooth and gum margin. Apply more toothpaste as necessary.
15. Pause between each quarter to offer the patient breathing, swallowing and rest breaks. Take your time and work at the patient's pace.

Box 1. Mouth care products

Nurses undertaking mouth care should consider the following when selecting mouth care equipment and products:

- A small-headed, soft bristle toothbrush can help to reach more difficult areas of the oral cavity, is easy to manipulate on oral tissues and can be comfortable for the patient, particularly if they are unwell. This type of brush can also be used to apply water or moisturising mouth gels, or to help retract the tongue if necessary
- An ultra-soft filament brush should be used when the oral soft tissues are delicate or sensitive, for example in patients receiving chemotherapy who may have developed mucositis (see evidence base section), those on high-dose anticoagulant medicines or those receiving end of life care
- A silicone oral hygiene mouth swab can be used to remove food or other debris or excess secretions and to apply a moisturising mouth gel
- A pea-sized amount of fluoride toothpaste (1,350 to 1,500 parts per million) should be used to clean the teeth twice daily. Using a mild-flavoured, non-foaming toothpaste is considered best practice as it will not volumise or contribute to dryness and can be better tolerated by patients experiencing nausea or during periods of tissue inflammation
- Non-fragrance liquid soap is indicated for cleaning dentures, because toothpaste can damage the surface, creating microscopic scratches. Denture cleaning tablets alone do not remove debris, so deposits should be physically removed using a denture brush. There is a risk of accidental ingestion of denture tablets in people with cognitive impairment, so if such products are used in hospitals or residential homes they must be safely stored

(Adapted from Office for Health Improvement and Disparities et al 2021, Royal College of Nursing 2023)

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16. Encourage the patient to spit out excess paste and debris but discourage rinsing or swilling with water afterwards to maximise fluoride absorption by the tooth enamel. However, it is important to consider the person's comfort, so enable them to rinse if this will help them feel more comfortable.
17. When you have finished, rinse the toothbrush thoroughly, ideally under running water. Toothbrushes (or heads if using an electric toothbrush) should be stored upright to air dry, however in hospitals the toothbrush head should be placed in a covered container to reduce the risk of cross-infection.
18. If mouthwash is indicated in the patient's oral care plan, for example for added fluoride protection, this should be provided at an alternative time to brushing to maximise its effect.
19. Water-based moisturising gels can be applied following mouth care for relief of a severely dry mouth. If indicated, massage the gel into the soft tissues of the oral cavity using a gloved finger, toothbrush or silicone oral hygiene mouth swab.

Denture care

20. Food debris and plaque can accumulate on dentures, which can harbour microorganisms such as Candida, potentially resulting in denture stomatitis (inflammation and redness beneath the dentures). If a Candida infection has been diagnosed, by a doctor or dentist for example, the dentures should be soaked in a 0.2% chlorhexidine mouthwash for ten minutes then rinsed thoroughly and left out of the patient's mouth until it shows signs of recovery. An antifungal oral gel may be prescribed as part of the treatment and can be placed under the denture (Mylonas et al 2022).
21. If no Candida is present, clean the dentures using the following method:
    - Fill a disposable bowl of clean water rather than using a sink, to minimise the risk of denture breakage.
    - Using a denture brush or toothbrush apply the fragrance-free liquid soap, gently brush all surface areas including any clasps and clean away any deposits or adhesive seen on the dentures.
    - Thoroughly rinse the dentures with cold water to remove all traces of the soap.
22. Return the dentures to the patient or store them, while still damp, in a labelled container. Dentures should be removed at night to enable the tissues to recover and to reduce the risk of choking. However, some people prefer to always retain their dentures, so respect the individual's wishes if safe to do so. If the dentures are loose, especially in patients with suboptimal neuromuscular control, for example after a stroke, they should not be placed in the mouth to prevent the risk of aspiration or accidental ingestion.
23. If the patient uses a denture adhesive for increased retention, this should be removed daily and reapplied sparingly with 'dabs' in a triangle formation on the contact surface of the denture.

Completion of mouth care and documentation

24. When you have completed mouth care, ensure the patient is comfortable.
25. Remove and dispose of the PPE and any other waste products in accordance with local policy. Perform hand hygiene.
26. Record the date, time and the mouth care provided on the patient's oral care plan or chart. If dentures are lost or damaged, record this in the patient's notes, complete an incident report and instigate repair or replacement in line with local policy. Additionally, document how the patient engaged with the procedure in the nursing notes.

Evidence base

All healthcare professionals should promote oral health and understand, and be able to explain to patients, the link between optimal oral health and general health; they should also recognise that, as well as undertaking mouth care, oral health promotion involves ensuring that patients have access to regular appointments with dental care professionals (Office for Health Improvement and Disparities et al 2021).

There is a growing body of evidence that suggests patients' oral health deteriorates during hospital admissions through, for example, an increase in dental plaque, development of gingival inflammation (inflammation of the gums) and subsequent deterioration in oral mucosal health (Doshi et al 2021b). Suboptimal oral hygiene has also been linked to prolonged hospital stays due to inadequate nutritional intake or hospital-acquired infection, such as aspiration pneumonia, resulting in increased care costs and negatively affecting patients' quality of life (Terezakis et al 2011).

A survey undertaken in 33 NHS hospitals in England identified a gap in mouth care training

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for nurses, particularly in oral assessment and in managing the refusal to accept mouth care by patients with dementia or delirium, for example (Doshi et al 2021b). It is vital that nurses are aware of current evidence and best practice in oral hygiene, such as that detailed in the Mouth Care Matters (Doshi and Tomlinson 2019) and Delivering Better Oral Health (Office for Health Improvement and Disparities et al 2021) toolkits. Nurses can also undertake e-learning in mouth care, for example at: portal.e-lfh.org.uk/Component/Details/763147

As an example of current best practice in mouth care, foam swabs are no longer recommended due to the risk of the foam head becoming detached from the stick during use, presenting a choking hazard (Medicines and Healthcare products Regulatory Agency 2014). The Royal College of Nursing (RCN) (2023) also regards foam swabs as ineffective when cleaning the teeth compared with a toothbrush, although a study by Marino et al (2016), involving 21 patients in intensive care, reported that a toothbrush and foam swab were equally effective at removing plaque and reducing gingival inflammation. Nonetheless, the use of a silicone oral hygiene mouth swab or a circular toothbrush with soft bristles all around the head and small enough to reach all areas of the mouth, rather than a foam swab, is recommended in nursing practice to remove secretions, coatings and food residue (RCN 2023).

Provision of mouth care in specific patient groups

Intubated patients receiving mechanical ventilation

Patients who are intubated and receiving mechanical ventilation are at risk of developing ventilator-associated pneumonia. This is due to the rapid colonisation of the oropharynx by aerobic gram-negative bacteria and through pooling of contaminated secretions above the endotracheal cuff, which slowly gain access to the lower airway (Gunasekera and Gratrix 2016). The use of an oral rinse containing chlorhexidine (an antiseptic and disinfectant that can be used to reduce bacteria within the mouth) in addition to mechanical toothbrushing may be beneficial in patients who are intubated. For example, Estaji et al's (2016) comparative study of oral care delivered using a toothbrush and toothpaste and oral care delivered using chlorhexidine and swabbing in 30 patients in an intensive care unit noted that both methods helped to reduce oral lesions. However, the speed of overall oral improvement was higher in the group using a toothbrush and toothpaste than in the group using chlorhexidine and swabbing. In a meta-analysis of 17 randomised controlled trials comparing oral care with antiseptics in patients receiving mechanical ventilation, Li et al (2015) suggested that applying chlorhexidine dental gel over patients' teeth and gums after toothbrushing with toothpaste may reduce the incidence of ventilator-associated pneumonia.

To help reduce the risk of ventilator-associated pneumonia, nurses should follow local policy and ensure implementation of an individualised and comprehensive critical care oral hygiene programme, which should incorporate 2-4 hourly mouth care interventions. Oral care interventions for this patient group will usually include (Welch 2017, Hatchett 2021):

- The use of a Yankauer suction catheter to remove accumulated oral secretions.
- Toothbrushing with non-foaming toothpaste using a small-headed toothbrush or suction toothbrush.
- Application of saliva substitute and frequent moistening of the mucosa with a toothbrush or silicone oral hygiene mouth swab.

Neurodivergent people, people with learning disabilities or people with cognitive impairment

The mouth is a sensitive, personal area and some people with cognitive impairment, such as those with dementia, people with learning disabilities or neurodivergent people, may 'resist' mouth care because of discomfort, anxiety or fear (Doshi et al 2021b). Box 2 lists some of the ways in which the nurse may provide mouth care for these populations.

End of life

For people receiving end of life care, the nurse should undertake regular, simple mouth care to provide comfort and dignity, ensure the oral cavity is kept free of dried secretions and remains hydrated, remove and safely store dentures, and gently brush the teeth to minimise bacteria build-up (RCN 2023). For advice on providing mouth care at this stage of a person's life, see the RCN (2023) resource Mouth Care During End of Life Care.

Mucositis

Mucositis is a painful and distressing condition characterised by erythema (redness or a rash often caused by inflammation), pain and ulceration of the mucous membranes.

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It is beyond the scope of this article to address specific care issues related to mucositis, however it is important that nurses recognise that it can be a side-effect of some cancer treatments, and can also occur in patients who are not receiving cancer treatments (Elad et al 2020, Myatt 2021). Mucositis carries a high risk of infection and can have a significant adverse effect on a person's quality of life, social interactions and psychological well-being (Myatt 2021).

Management of mucositis tends to be symptom-driven, and can include optimal oral hygiene and pain management, prescription of analgesia and use of topical mouth rinses with analgesic and anti-inflammatory qualities. There is also a risk of systemic infection following damage to the oral mucosa, especially where cancer treatments have compromised the patient's immune system (Bell et al 2023).

Box 2. Provision of mouth care for neurodivergent people, people with learning disabilities or people with cognitive impairment

To try to reduce discomfort, anxiety or fear, the nurse can:

- Reassure the person and maintain their comfort, for example by offering them the opportunity to touch and taste the mouth care products
- Develop a regular mouth care routine, involving short episodes of care undertaken in a quiet, comfortable and familiar location
- Explain and demonstrate any mouth care process calmly and kindly, for example by using language the person can understand, or communication cards, mirroring the procedure, or placing a hand over the person's hand while they undertake mouth care to reassure and assist them
- Ask family members or formal carers to assist, if they are available and it is appropriate to do so, since they may be more familiar with the person and encourage participation
- Use distraction techniques, such as singing, turning on the radio, holding another toothbrush, or suggesting the person holds a comfort object
- Use a minimal amount of toothpaste and water and the smallest possible toothbrush, which may be more comfortable and less threatening
- Stop the procedure if the person is agitated or cannot engage in the mouth care procedure and try again at a different time

(Doshi et al 2021b)

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