

Denture care promotes good health

Advocate careful cleaning and storage.

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PNEUMONIA is a leading cause of hospitalization and death, especially among older adults. This high prevalence frequently is associated with aspiration resulting from dysphagia and declines in immune system and respiratory function, which occur with advanced age. Dental plaque (which accumulates on hard and soft tissue in the mouth), similar to oral secretions, also can be aspirated into the lungs and lead to pneumonia.

Oral secretions and dental plaque consist of many pathogenic and non-pathogenic bacteria and fungi. Microbial plaque that accumulates on dentures may be harmful to both the oral mucosa and an individual's general health, making oral hygiene maintenance an important lifelong practice that should continue even when hospitalized or residing in long-term care.

Oral hygiene guidelines

Oral care dates back to 3500 BCE when chewing sticks were used to clean teeth and freshen breath. Since then, oral care has been found to be effective in reducing the risk of aspiration pneumonia. The American Prosthodontic Association guidelines for the care and maintenance of dentures haven't been updated since

2011, but nursing care of dentures has yet to catch up with those recommendations.

Cleaning and disinfecting dentures are essential for maintaining oral soft-tissue health and successfully using removable dentures. Physical and psychological conditions can create challenges to maintaining good denture hygiene. Patients who rely on others for care are particularly vulnerable, but denture hygiene also can be neglected in healthy denture wearers. This can be attributed to a lack of basic knowledge or carelessness.

Although guidelines recommend brushing dentures and gums daily, soaking dentures in disinfecting solutions, and not wearing dentures overnight, practice variations that can result in poor dental hygiene still occur. Nurses can help educate patients and family members about the importance of developing a daily denture cleaning routine, including appropriate denture care products and storage. (See *Denture care and maintenance*.)

Denture care and products

Periodontal health maintenance requires effective oral hygiene to prevent plaque accumulation and its inevitable consequences, including gingivitis and periodontal disease. This also is true for those who wear dentures.

When individuals are hospitalized or are residents of long-term care facilities, oral hygiene becomes an important part of patient care. Denture cleanliness is essential to prevent malodor, poor esthetics, and plaque and calculus accumulation. The microporous surfaces of an acrylic denture provide a range of environments to support organisms that can threaten the health of physically vulnerable patients.

Mechanical tooth cleaning with a toothbrush is the most common way to disturb dental plaque. Many solutions, pastes, and powders

are available for cleaning dentures with a variety of claims about their relative efficacy. The careful use of specific brushes and cleansers also is critical for good outcomes. Ideally, denture care products should be easy to handle, effective at removing debris and stains, bactericidal and fungicidal, nontoxic, safe for denture material, and affordable. Many manufacturers of denture cleaning products recommend soaking dentures for a short period of time (for example, 10 minutes for products that contain sodium hypochlorite or sodium hypochlorite bleach) and rinsing them before insertion. However, these solutions (including chlorhexidine gluconate) shouldn't be used to clean dentures with metal components because they may corrode or tarnish the metal.

The American Dental Association (ADA) recommends brushing and soaking to effectively clean dentures. The American Prosthodontic Association recommends that care be taken when brushing to prevent scratching the denture's acrylic or resin base. According to the ADA and Felton and colleagues, rough denture surfaces have been shown to accumulate more bacteria than smooth surfaces.

Storage

Denture care also includes safe storage and denture labeling to help prevent damage or loss. According to Harrison, little improvement has occurred over the past 20 years regarding the frequency of denture loss in hospitals and long-term care facilities. With the cost of a full set of dentures being as high as \$8,000, loss can result in significant expense to the facility and patients.

To avoid the cost of lost dentures, some facilities ask family members to take patients' dentures home. However, that leaves patients without their dentures, which they may find distressing and can affect their nutritional and oral health. Ideally, dentures are marked during their construction so they can be identified if lost. If that hasn't been done, the facility can mark them using a denture marking kit or permanent markers.

Reduce the risk

Proper cleaning of dentures is just as important to overall oral health as is the care of natural teeth. When dentures aren't regularly cleaned, plaque and debris can accumulate, placing vulnerable patients at risk of serious health

Denture care and maintenance

Proper care and maintenance of dentures includes routine dental exams to assess oral health and denture wear. When patients are hospitalized or reside in long-term care facilities, the potential for denture loss exists. When they're not being worn, they should be placed in a labeled container in a safe location. Staff should document in the patient's health record if a family member takes the dentures home.

Follow these steps when cleaning a patient's dentures:

- Don gloves, place dentures in a clean container, and carry them to the sink.
- Place a cloth in the bottom of the sink and partially fill it with water to prevent damage if you accidentally drop the dentures.
- Using a toothbrush designed for dentures and a small amount of nonabrasive cleaner, brush the dentures carefully to prevent scratching. Pay particular attention to areas of the denture that touch the gums or roof of the mouth.
- Thoroughly rinse the dentures with warm water to remove debris and cleaner.
- Soak dentures any time they are not in the mouth.
- Remove dentures overnight and for sedation procedures and store them in water or cleaning solution in a labeled container.

consequences. When nurses are knowledgeable about oral healthcare maintenance, they can help teach proper denture cleaning techniques, motivate patients, and provide appropriate care when necessary. **AN**

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