



July 2017

ELDER CARE

A Resource for Interprofessional Providers

Oral Care for Older Adults

Karen Tam, RDH, MSDH, PhD, Dental Hygiene Department, Pima Community College, Tucson, AZ

The prevalence of edentulism (loss of some or all teeth) among adults aged 65 and older in the U.S. had declined from 23% in 2008 to 19% when last measured in 2012. Rates differ, however, among population groups. The highest rates are among Native Americans and African-Americans and the lowest rates among Asians and Hispanics. Rates are also higher in low-income populations.

As a result of adults retaining their natural teeth longer, there is a higher risk over time of developing dental caries (cavities), periodontal (gum) disease, and a variety of other oral health issues (Table 1). This edition of Elder Care will focus on prevention of dental caries and other selected oral health conditions in older adults.

Angular cheilitis*	Gingival overgrowth
Attrition (wear-and-tear tooth loss)	Missing teeth
Dental caries	Oral/pharyngeal cancer
Failing dental restorations	Oral candidiasis
Dry lips; dry mouth	Oral mucositis
Gingival abrasions	Periodontal disease
Gingival erosions	Poor oral hygiene
*swelling and redness at corner of mouth	

Preventing Dental Caries

With age, older adults are at risk for new or recurrent caries, particularly on the root of teeth as gum recession occurs. They are also at risk for periodontal disease from inadequate plaque removal in the past.

A number of activities can help prevent these caries. They include consistent fluoride exposure, mechanical removal and chemical control of dental plaque biofilm, and regular professional dental care. These goals can be achieved for

older adults who have no dental complications by receiving regular dental care and following the standard oral hygiene routine of brushing twice a day with a fluoridated toothpaste and a soft manual toothbrush or electric tooth brush, using a daily interdental cleaner (flossers, soft pics, interdental brushes). Some older adults may not have the dexterity to use simple dental floss.

Oral Care for Patients with Special Health Conditions

While the aforementioned approaches are appropriate for patients with no special dental or oral health problems, prevention and control of dental caries and other oral health conditions must be individualized based on a person's oral health and general health status.

For individuals susceptible to dental caries, the American Dental Association (ADA) recommends the use of fluoride varnish. Fluoride varnish is a resin base that contains a high concentration of fluoride (22,600 ppm or 2.26% fluoride). It is painted on the teeth and dental root surfaces. In addition to this being a procedure performed by dental professionals, licensing regulations in most states authorize physicians, nurse practitioners, nurses, pharmacists, and physician assistants to apply fluoride varnish.

Another approach to preventing dental caries is the use of re-mineralizing pastes that contain calcium and phosphate (MI paste). The paste is smeared onto demineralized teeth before bed with a finger or cotton-tipped applicator and left on the teeth overnight.

Preventive protocols for older adults with other selected health conditions, including the most recent (2014) recommendations from the Centers for Disease Control and Prevention about oral care for patients on mechanical ventilation, are shown in Table 2.

Included among these preventive protocols is the use of chlorhexidine rinses to prevent buildup of bacteria in dental plaque. Chlorhexidine is recommended for patients

TIPS FOR PREVENTING DENTAL CARIES IN OLDER ADULTS

- Use an electric toothbrush or a soft manual toothbrush twice a day
- Use fluoride daily or antimicrobial rinses when indicated
- Use an interdental cleaner (dental floss, soft pics, interdental brushes)
- Visit a dental care professional regularly
- When patients have caregivers, involve them in the plan for and administration of oral care

ELDER CARE

Continued from front page

Table 2. Preventive Protocols for Older Adults with Selected Health Conditions

Chronic Conditions Associated with Xerostomia (Dry Mouth)	Physical and Mental Disabilities	Patients in Long-Term Care Facilities or Hospitalized on Mechanical Ventilation
<ul style="list-style-type: none"> • At-home use of over-the-counter 0.05% sodium fluoride rinse, and 1.1% sodium fluoride gel or 0.4% stannous fluoride gel • In-office, fluoride varnish applied two times a year • 0.12% chlorhexidine gluconate rinse. Wait 60 minutes before applying fluoride and 60 minutes after brushing • Saliva substitutes, frequent water intake 	<ul style="list-style-type: none"> • Modification of the toothbrush with enlarged handle • At-home use of over-the-counter 0.05% sodium fluoride rinse, and 1.1% sodium fluoride gel or 0.4% stannous fluoride gel • In-office, fluoride varnish applied two or three times a year • 0.12% chlorhexidine gluconate rinse. Wait 60 minutes before applying fluoride and 60 minutes after brushing 	<p>Patients in Long-Term Care Facilities</p> <ul style="list-style-type: none"> • Fluoride varnishes applied twice/year • Saliva substitutes <p>Patients on Mechanical Ventilation and Low-Functioning Patients in Long-Term Care</p> <ul style="list-style-type: none"> • Saliva substitutes • Foam suction swab with 0.12% chlorhexidine gluconate rinse every 4 hours • Moisturizer for lips and mouth every 2 to 4 hours

on ventilators, patients with mental and physical disabilities, patients with chronic conditions that predispose to xerostomia (dry mouth), and patients in long-term care facilities (Table 2). Chlorhexidine is also recommended to reduce or prevent development of oral mucositis and candidiasis in immune suppressed patients.

Oral Care for Adults with Caregivers

For older adults with caregivers, effective routine oral care can be difficult. Taking care of someone else's oral care requires patience, skill, and willingness to be proactive, especially when the older adult is unable or unwilling to cooperate. This makes the caregiver an important part of the oral health team. Table 3 is a guide to help caregivers provide the basic essential oral care.

Table 3. Caregiver's Oral Health Guide

<ul style="list-style-type: none"> • Look for a comfortable place in which to perform daily oral care. It doesn't have to be in a bathroom. • Assure good lighting. • Allow the patient to sit at a table. • Explain to the patient what is going to happen and what is being done. • Either sit or stand to help the patient brush and floss. Caregiver can be next to or behind the patient. • Give positive feedback when the patient is being cooperative. • Develop a routine. Be creative. • Consult with the patient's dental team about oral lesions that don't resolve in two to three weeks.
--

References and Resources

- Fitzgerald J., et al (2015). Outpatient medication use and implications for dental care: Guidance for contemporary dental practice. *J Can Den Assoc*, 2015; 81:f10.
- National Institute of Dental and Craniofacial Research. Dental Care Every Day: A Caregiver's Guide. <https://www.nidcr.nih.gov/oralhealth/Topics/DevelopmentalDisabilities/DentalCareEveryDay.htm>
- Prendergast V, Kleiman C. Interprofessional practice: Translating evidence-based oral care to hospital care. *J Dental Hygiene* 2015; 89(1):33-35.
- Razak PA, et al. Geriatric oral health: A review article. *J Internat Oral Health*, 2014; 6(6):110-116.
- Slade G D, Akinkugbe AA, Sanders AE.. Projections of U.S. edentulism prevalence following 5 decades of decline. *J Dental Res*. 2014; 93(10):959-965.
- Wu B, et al. Edentulism trends among middle-aged and older adults in the United States: comparison of five racial/ethnic groups. *Community Dent Oral Epidemiol*. 2012; 40(2):145-153.

Interprofessional care improves the outcomes of older adults with complex health problems.

Editors: Mindy Fain, MD; Jane Mohler, NP-c, MPH, PhD; and Barry D. Weiss, MD
 Interprofessional Associate Editors: Tracy Carroll, PT, CHT, MPH; David Coon, PhD; Marilyn Gilbert, MS, CHES;
 Jeannie Lee, PharmD, BCPS; Marisa Menchola, PhD; Francisco Moreno, MD; Lisa O'Neill, DBH, MPH; Floribella Redondo; Laura Vitkus, BA
 The University of Arizona, PO Box 245069, Tucson, AZ 85724-5069 | (520) 626-5800 | <http://aging.arizona.edu>

Supported by: Donald W. Reynolds Foundation, Arizona Geriatrics Workforce Enhancement Program and the University of Arizona Center on Aging

This project was supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) under grant number U1QHP28721, Arizona Geriatrics Workforce Enhancement Program. This information or content and conclusions are those of the author and should not be construed as the official position or policy of, nor should any endorsements be inferred by HRSA, HHS or the U.S. Government.