Oral Health: Protecting your Smile Protects your Health

Elizabeth Eckstrom, MD, MPH
Contributors: Bob Johnson DMD, Kelly Schoenbeck, M3
Oral Health and Older Adults

Oral Health Challenges Faced by Older Adults

**The good news:** Many older adults are keeping their teeth

**The bad news:** Teeth require meticulous hygiene

Plaque Diseases: Two Types
1. Caries (tooth decay)
2. Periodontal Disease (gum inflammation)
   leads to exposed root surfaces
Plaque Diseases

• Plaque development inhibited by daily brushing and flossing.
  – Both actions require manual dexterity that is often lost as people age
  – Strategies include using floss holders, rinsing twice daily with fluoride rinse, high fluoride toothpaste, regular dentist visits, and sometimes help from others

• Periodontal disease
  • 95% of people over the age of 65 have some loss of periodontal attachment, causing gingival recession and root exposure
  • Those teeth are vulnerable to root surface caries

Xerostomia (chronic dry mouth)

• Caused by lack of salivary flow
• Highly variable between people
  – Less than 1 ml of saliva/minute for 5 minute test is diagnostic
• Affects more than 70% of 65+ population
• Signs: ropy saliva, chapped lips, fissuring of tongue, oral fungal infections, lesions at corner of mouth
Xerostomia- Causes
Medications, tobacco use, eating disorders, radiation or chemotherapy, old age

Specific Medications include:
• Anti-cholinergics, anti-histamines
• Anti-depressants
• Anti-hypertensives
• Diuretics
• Anxiolytics

Xerostomia- Symptoms

• Burning sensation
• Sore tongue
• Generalized oral soreness
• Difficulty swallowing
• Impaired speech
• Recurrent oral abrasions/ulcerations
Xerostomia- Treatment

- Increase water intake: small, frequent sips
- Salivary stimulants (sugar free candy or gum)
- Saliva substitutes (Oasis Mouth Moisturizer)
- Rinse with sodium bicarbonate (1 tsp baking soda with 8 oz water)

Oral Cancer

Squamous cell carcinoma:
- Prevalence increases over age 40
- Males 3x as likely as females
- Responds well to early diagnosis
- Common sites:
  - lower lip
  - palate
  - floor of mouth
  - tongue
  - tonsillar pillar
Obstacles to Optimal Oral Health

• Medicare was not designed to provide for routine dental care
• Use of dentures does not eliminate the need for good oral hygiene
• Nursing home staff have poor training in oral health examinations
• Dentists are less likely to treat patients in an institutionalized setting

Physical Impediments to Oral Hygiene

• Arthritis
• Parkinson’s Disease
• Dementia
• Loss of tactile sensation
• Loss of proprioception
• Loss of fine motor control
• Reduced visual capacity
Oral-Systemic Health Interactions

- Nutritional deficiencies due to oral health problems exacerbates existing chronic diseases
- Periodontal disease strongly correlated with:
  - Cardiovascular disease
  - Diabetes
  - Aspiration pneumonia

Oral Health Contributes to Systemic Health
Special Concerns for Diabetics

- Diabetics with oral lesions have more difficulties with glycemic control
- High prevalence of Candidiasis, especially among those with dentures and partials

Dementia

- Oral hygiene can be difficult to maintain
- Communication difficult in cognitively impaired people
- Most dental needs are never addressed
- Other problem behaviors may be a result of oral pain
- Dementia patients experience:
  - Reduced salivary flow
  - High plaque levels
  - Increased soft tissue lesions
  - Decreased use of dentures
  - Loss of muscle tonicity and control, which leads to loss of denture control, impaired chewing, sleep apnea, and gastric reflux
Dentures Create Special Concerns

- Reduced chewing to about 20% of normal
- Alveolar bone loss over time leading to denture instability
- Drop in neuromuscular and sensory function
- Reduced salivary efficiency
- Decreased tactile sensation
- Decreased taste capacity
- Increased incidence of oral lesions

Dentures may Compound Problems

- Oral discomfort
  - Nutritional deficits (more soft, processed foods consumed)
  - Poor food choices exacerbate systemic conditions (gastrointestinal reflux, osteoporosis)
A Word about Radiation Therapy

• Comprehensive oral care prior to radiation therapy involving the head/neck is essential.
• The risk of osteo-radio-necrosis is high after radiation therapy and increases over time.

How Health Care Providers can Help

• Counseling = 5 As
  1. Assess
  2. Advise
  3. Agree
  4. Assist
  5. Arrange
• Refer patients to dental providers when necessary
• Write prescriptions for oral health cleaning and care for nursing home residents
Resources

- Sjögren et al., JAGS 56:2124-2130, 2008
- Quandt et al., The Gerontologist Advance Access published July 2, 2009
- The Kayser-Jones Brief Oral Health Status Examination (BOHSE) – Try This #18
- Nestlé Mini Nutritional Assessment (MNA) http://www.mna-elderly.com/mna_forms.html