

# Putting Teeth Into Your Physical Exam. Part 2: Adults

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Primary care clinicians can, in the course of routine clinical care, play an important role in screening for oral conditions, prescribing chemotherapeutics to prevent oral disease, and counseling patients to adopt behaviors conducive to optimal oral health.

The oral health interventions related to personal health practices reviewed in this paper are adapted from the US Preventive Services Task Force *Guide to Clinical Preventive Services*.<sup>1</sup> The recommended interventions outlined here include community-based health promotion and oral disease preventive education strategies for primary health care providers.

## Dental Caries

Although dental caries is more commonly thought of as a childhood disease, adults continue to be at risk for dental decay throughout their lifetimes.<sup>2</sup> Recurrent decay in previously restored teeth is often problematic in middle-aged and older adults. Root surface decay associated with gingival recession is a particular concern in older adults, who now are keeping their teeth longer than ever before.<sup>3</sup> Additionally, dental decay associated with xerostomia (dry mouth) is a common problem in (1) adult patients who take any of a variety of medications (see Table 1); (2) patients who have undergone cancer chemotherapy or radiation therapy to the head and neck area; (3) persons who suffer from Sjögren's syndrome; and (4) patients with bulimia.<sup>4</sup>

Prevention or modification of dental caries in adults involves (1) increasing the resistance of teeth to the decay process by means of routine or therapeutic use of fluo-

rides; (2) dietary interventions aimed toward reducing exposure of the teeth to fermentable carbohydrates; (3) reducing the number of caries-producing microorganisms in the mouth through effective oral hygiene; and (4) monitoring the effects of medications known to reduce salivary flow to determine if a saliva substitute should be prescribed (Table 1).<sup>5-7</sup>

## Periodontal Disease

Periodontal disease is a general term used to describe diseases that affect the gingivae and supporting connective tissue and alveolar bone, which anchor the teeth in the jaws. The most common of these are inflammatory changes of the gums (gingivitis) and inflammatory and destructive changes in the soft tissues and in the bone supporting the teeth (periodontitis). Gingivitis develops when supragingival plaque is allowed to accumulate along the gingival margin of the tooth and in the gingival crevices (sulcus) surrounding the tooth. Bacterial byproducts of plaque irritate the gingival tissues, causing inflammation. Mineralization of undisturbed plaque into hard deposits known as calculus or tartar further exacerbates the poor oral environment, making it difficult to keep the mouth clean.<sup>6</sup> In a recent national survey of adult oral health conducted in the United States, nearly 50% of adults had some form of gingivitis and nearly 80% had some degree of periodontitis. As might be expected, the prevalence of moderate-to-advanced periodontitis was much greater in older adults than in younger and middle-aged adults.<sup>2</sup>

Periodontal diseases can be prevented or their progression interrupted by removing soft and hard deposits and keeping teeth free of bacterial plaque. In this regard, patients should be encouraged to brush and floss daily and to seek regular professional dental care at least annually. Patients presenting with condition-related periodontal diseases such as pregnancy gingivitis, dilantin hyperplasia, and gingivitis associated with diabetes or

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Table 1. Oral Health Effects of Selected Drugs

| Effects                              | Drugs   |
|--------------------------------------|---|
| Xerostomia                           | Anticholinergics, antidepressants, antihypertensives, antipsychotics, diuretics, gastrointestinals, systemic antihistamines/decongestants, systemic bronchodilators |
| Soft tissue reactions                | Methyldopa, barbiturates, sulfonamides, penicillamine, gold salts, chloroquine, isoniazid   |
| Altered host resistance              | Antibiotics, insulin, oral hypoglycemics, systemic corticosteroids  |
| Gingival overgrowth                  | Phenytoin, nifedipine, cyclosporine, diltiazem  |
| Interactions with dental drugs       | Barbiturates, benzodiazepines, muscle relaxants, sedative-hypnotics, nonsteroidal anti-inflammatory agents, opiate analgesics                                       |
| Need to minimize vasoconstrictor use | Antiarrhythmics, cardiac glycosides, tricyclic antidepressants, calcium channel blockers  |

human immunodeficiency virus infection should be encouraged to consult their dentist for a periodontal evaluation. Additionally, tobacco users, alcoholics, and persons with certain blood dyscrasias, Down's syndrome, Sjögren's syndrome, or postirradiation effects should be encouraged by physicians to receive regular dental care. Periodic contact between the patient's physician and dentist in these instances is also advised.<sup>4,6,8,9</sup>

## Oral Cancer

Premalignant lesions and malignancies of the oropharynx are more common among persons who either smoke or use smokeless tobacco. Persons who are also heavy drinkers are especially at risk. The floor of the mouth, the ventrolateral tongue, and the soft palate are high-risk sites within the oral cavity and oropharynx.<sup>10,11</sup>

Oral-pharyngeal cancer represents 3% to 4% of all cancers and is the seventh most common form of cancer, excluding skin cancer.<sup>12</sup> According to the American Cancer Society in 1990, oral cancer had the fifth lowest survival rate of the 13 major cancer sites, with an overall 5-year survival rate of 52%.<sup>10</sup> An estimated 17,700 new cases of intraoral (excluding lip) squamous cell carcinoma occurred in 1989, with pharyngeal cancers accounting for an estimated 8700 additional cases. In 1987, more than 9700 deaths in the United States were caused by cancers of the oral cavity and the pharynx (3.6 per 100,000).<sup>9,11</sup>

The avoidance of tobacco products in any form is an important preventive measure against oral cancer.<sup>6</sup> Physicians and nurses are in a unique role—that of a trusted advisor—and can set the stage for the initiation and implementation of an effective tobacco cessation program within their office. By routinely looking for soft tissue changes in the mouths of their tobacco-using patients, and pointing out any obvious tobacco-induced soft tissue changes and irritations, health practitioners can illustrate the undesirable effects of tobacco use for their patients, adding emphasis to their message of “give up the tobacco habit.”<sup>13</sup>

White and red lesions of the oral mucosa are the most common precancerous clinical lesions. Although white changes (leukoplakia) are the most common premalignant lesion, red changes (erythroplasia) or white changes with a red component (speckled leukoplakia, erythroplakia) carry a greater risk. Areas of mucosal abnormality, especially redness or inflammation in high-risk sites that persist for more than 14 days without obvious etiology or resolution, should be biopsied. Consultation with the patient's dentist is advised.<sup>10,14</sup>

## Elderly Adults

The oral conditions described above are particularly significant and difficult to manage when they occur in the elderly.<sup>3,15</sup> Chronic health-related problems associated with the aging process make the diagnosis and treatment of oral health problems in the elderly challenging for medical and dental practitioners alike. Frequently, elderly individuals view oral health as a low-priority health need and postpone dental treatment until they are in pain or the oral condition significantly compromises their general physical condition. Often, their general physical condition prevents them (or their caregivers) from seeking dental care until the course of the dental disease has taken a rampant toll.<sup>15</sup>

Patients who wear dentures should be encouraged to remove their dentures during the oral examination so that the soft tissues can be thoroughly examined for signs of irritation. Inquiries should be made regarding the comfort of the dentures and the patient's ability to chew and eat a variety of foods. If the physician notes any problems with the dentures or the soft tissues, the patient should be encouraged to visit his or her dentist for a complete oral examination. This type of cooperation between physicians and dentists can significantly benefit the health and well-being of the elderly patients whom they treat.<sup>15</sup>

## References

1. US Preventive Services Task Force. Guide to clinical preventive services. Baltimore, Md: Williams & Wilkins, 1989.
2. US Department of Health and Human Services. Oral health of United States adults: national findings. Washington, DC: US Department of Health and Human Services, August 1987. NIH publication No. 87-2868.
3. Gift HC. Issues of aging and oral health promotion. Gerodontology 1988; 4:194-206.
4. Little JW, Fallace DA. Dental management of the medically compromised patient. St Louis, Mo: CV Mosby, 1988.
5. American Dental Association. Accepted dental therapeutics. 40th ed. Chicago: American Dental Association, 1984.
6. Greene JC, Louie R, Wycoff SJ. Part II. Periodontal diseases, malocclusion, trauma and oral cancer. JAMA 1990; 263:421-4.
7. Baker KA, Levy SM, Chrischilles EA. Medications with dental significance: usage in a nursing home population. Special Care Dent 1991; 11(1):19-25.
8. Williams RC. Medical progress: periodontal disease. N Engl J Med 1990; 322:372-82.
9. Robertson PB, Greenspan JS. Perspectives on oral manifestations of AIDS: diagnosis and management of HIV-associated infections. Proceedings of a symposium held January 18-20, 1988, in San Diego, Calif. Littleton, Mass: PSG Publishing Co, Inc, 1988.
10. Silverman S Jr. Oral cancer. 3rd ed. Atlanta, Ga: American Cancer Society, 1990.
11. National Institutes of Health. Consensus development conference statement: oral complications of cancer therapies. J Am Dent Assoc 1989; 119:179-83.
12. Centers for Disease Control. Deaths from oral cavity and pharyngeal cancer—United States, 1987. MMWR 1991; 39:457-72.
13. US Department of Health and Human Services. How to help your patients stop smoking: a National Cancer Institute manual for physicians. Washington, DC: US Department of Health and Human Services, November 1991. NIH publication No. 92-3064.
14. Mashberg A, Samit AM. Early detection, diagnosis, and management of oral and oropharyngeal cancer. CA 1989; 39:67-88.
15. Steinberg FU, ed. Care of the geriatric patient. 6th ed. St Louis, Mo: CV Mosby, 1983; 392-3.

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