

Oral Health and Aging

By

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Many of us equate oral health with brushing our teeth and mouthwash. We underestimate both the importance of our mouths as the portal to our bodily systems, and the connection between oral health and overall wellness. Moreover, when we consider “good health,” we may think health care, and having access to others who will treat us and being able to afford the treatment. Taking steps to care for ourselves, to prevent the need for the treatment, tends to be a secondary consideration.

At the same time, there’s an almost weird separation between medical and dental when we think of health. In reality, health and wellness are essentially linked to oral health, in a relationship that goes both ways. Poor oral health can not only cause oral disease, but also oral disease can affect heart, lung, bone, liver, and other organ functioning; in turn, the treatment of problems in these organs may well involve medications that damage oral health, such as creating dry mouth, lessening salivary gland functioning, stimulating orofacial pain, and osteonecrosis (bone death) of the jaw.

“The effects of oral disease on overall health are alarming. Oral disease has an impact on physical, psychological, social, and economic health and well-being, often resulting in pain, diminished function, and reduced quality of life,” notes the recent *Oral Health Strategic Framework 2014-2017* from the U.S. Department of Health and Human Services.

Back in 2000 the Surgeon General’s report on oral health, *Oral Health in America*, referred to poor oral health as a “silent epidemic.” Many are just beginning to see the implications for geriatrics and older adults.

For these and other reasons, our Virginia Geriatric Education Center, a consortium of VCU, University of Virginia, and Eastern Virginia Medical School, has been especially pleased to add dentistry (Dr. Trish Bonwell of VCU) to the interprofessional team members who comprise the Plenary that oversees all of our programs. As a welcome bonus, Dr. Jaisri Thoppay, VCU Director of Oral Medicine in the School of Dentistry, is one of our 2016-2017 Faculty Development Program (FDP) Scholars, spending September through June with us. Both Dr. Bonwell and Dr. Thoppay have added considerable content on oral health to the FDP’s 200-hour curriculum. Notably, the Scholars in this year’s FDP include faculty from medicine, nursing, occupational therapy, pharmacy, physical therapy, and social work, so the exchanges have been truly interprofessional.

So, why is oral health so important? Reasons include oral-systemic relationships, as implied above. Poor oral health can lead to oral disease which can affect various parts of our bodies. There are oral-systemic relationships that are associated with cardiovascular disease, diabetes,

pneumonia, and bacterial endocarditis, to name a few (Paju & Scannapieco, 2007; Blaizot et al., 2009). Let's discuss these briefly.

Pneumonia is a significant respiratory disease and especially consequential with older adults. Our mouths can serve as an entry point for respiratory pathogens. Poorly cleaned teeth or dentures may store these pathogens for some time, increasing the prospect of their being aspirated into the airway and traveling to the lungs. Inflammation from periodontal (gum) disease can lead to both gingivitis and poorer overall health, such as by entering the circulatory system, triggering the liver to produce more C-reactive protein which can lead to thickening of the heart's arterial walls and a build-up of plaque. Controlling the inflammation from periodontal disease has also been shown to lessen arthritis flare-ups elsewhere in the body.

Bacterial endocarditis is an infection of the inner lining of the heart, most often of the heart valves, characterized by fever, enlarged spleen, and heart murmur. Poor oral health and oral disease are associated with this dangerous condition.

Medications to treat various seemingly benign as well as obviously more serious health conditions can produce xerostomia or "dry mouth." In fact, dry mouth is an acknowledged side effect of some 400 prescription and over-the-counter medications, including drugs to treat depression, anxiety, pain, allergies and colds (antihistamines and decongestants), asthma, obesity, epilepsy, hypertension (diuretics), diarrhea, nausea, psychotic disorders, urinary incontinence, and more.

Many of these medications have an antiadrenergic / anticholinergic effect, meaning that, among many other reactions, they block systems that help promote watery secretions from glands, like saliva. Studies indicate that dry mouth can create problems with swallowing, chewing, and dental decay. These, in turn, may affect diet and nutrition.

Again, medical and dental health are too often kept in separate compartments. If you ask people, "Who are members of the healthcare team?" you'll likely get responses that list physicians, nurse practitioners, nurses, physical and occupational therapists, etc., and, at some point, perhaps, dentists and dental hygienists. If these are all team members committed to people's well-being, do they all communicate with each other? The short answer is "no."

As the above-referenced *Oral Health Strategic Framework 2014-2017* from the U.S. Department of Health and Human Services, notes:

"This results in a lack of integration between medical and dental records, a lack of use and acceptance of dental diagnostic codes, and separate insurance coverage and payment systems, treatment delivery, and health care systems. Interprofessional education and collaborative practice present tremendous possibilities for integrating oral and primary health care and improving patient-centered care. While community and clinical approaches have been shown to reduce oral diseases, lessen dental care costs, and improve the quality of individuals' lives, these approaches are not being used to the greatest extent possible.

The cost of dental care and lack of dental coverage are often cited as reasons individuals do not seek needed dental care. Publicly-financed reimbursement programs covering the provision of

oral health services are often limited in scope or are non-existent for adults. For example, Medicare coverage provides 22 preventive screenings for eligible individuals, but does not include oral health services. Medicare is limited in scope of coverage for dental care and, typically, must be related to a covered medical procedure provided in a hospital setting. While most state Medicaid programs cover emergency dental procedures for low-income adults, only 28 states provide dental benefits to Medicaid-enrolled adults beyond medically necessary care in emergency circumstances.”

The *Oral Health Strategic Framework* identifies five needed goals to address the importance of oral health.

GOAL 1. Integrate Oral Health and Primary Health Care

“The American health system has historically separated oral health care from overall health care in the health professions’ education, practice, and payment systems. The lack of interoperability between medical and dental records further adds to segmentation of health care delivery..... Frontline primary care professionals, specifically nurses, physicians, and physician assistants are members of the medical delivery system who are most likely to see vulnerable and underserved populations with limited or no access to dental services. This group of primary care professionals has the capacity to incorporate oral health information and the provision of preventive oral health services into their existing day-to-day practice.”

GOAL 2: Prevent Disease and Promote Oral Health

“Older adults are keeping more teeth than previous generations, yet develop new decay at rates equal to or higher than those in children. Prevention of oral disease can be enhanced through the increased delivery of clinical and community preventive services that remain underutilized.”

GOAL 3. Increase Access to Oral Health Care and Eliminate Disparities

“There are more than 47 million individuals living in designated dental shortage areas... To advance the oral health of the nation, the dental public health community should emphasize prevention and greater access to providers who are knowledgeable, sensitive, and responsive to diverse populations....Improve the knowledge, skills, and abilities of providers to serve diverse patient populations....Promote health professionals’ training in cultural competency.”

GOAL 4. Increase the Dissemination of Oral Health Information and Improve Health Literacy

“According to the Institute of Medicine (IOM) Report, *Advancing Oral Health Care in America*, many patients and health care professionals are unaware of the risk factors and preventive methodologies for oral diseases. Moreover, many do not clearly understand the relationship between oral health and overall health and well-being. ...Oral health information should be integrated into the health record and be readily available to health providers.”

GOAL 5. Advance Oral Health in Public Policy and Research

“Most dental, oral, and craniofacial conditions arise from complex interactions of biological, behavioral, environmental, and higher system-level factors. Thus, oral health-related research must involve a number of approaches, including basic research, interventional studies, behavioral

science and public health research, population-health studies, clinical trials, and community-based studies.”

So, of course we should continue with our oral health routines of brushing, flossing, and mouthwash. This is an important base. In addition, the sooner we recognize the importance of oral health to our well-being as older adults, the better we age. We need to consider our dentist as part of our health care team, and to share our oral health data, including our dentist’s name and contact information, with our primary care physician or provider. For those of us in health professions, we should work together more to incorporate oral health into primary care.