

Aging With Mental Retardation



Aging With Mental Retardation: Oral Health for Older Individuals with Disabilities

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Introduction

Approximately 50 million Americans have some type of disabling condition. For the purposes of this report, the term “disabled” refers to any person who has a mental, physical or developmental impairment that substantially limits one or more major daily activities. Some of these impairments may include but are not limited to cerebral palsy, mental retardation, depression, Alzheimer’s disease, spinal cord injury, visual impairments, arthritis, or muscular dystrophy.

This informational oral health fact sheet is designed to provide family members and caregivers of individuals with disabilities basic information regarding the oral health care needs and requirements of the individuals for whom they care.

What type of dentistry is required for older adults with disabilities?

“Special care dentistry” is a term commonly used for addressing the oral health needs of an older person who is medically compromised or an individual with some type of mental,

physical or developmental disability. This type of dental treatment may be provided in hospitals, long-term care facilities, skilled nursing facilities, group homes, private practice or community health centers. It typically involves modifying the dental examination and the required dental treatment due to the patient’s disability.

Special care dentistry may include consulting with the physician, coordinating dental treatment with other care providers, accommodating a person with the aid of the caregivers, adaptations to the treatment procedure, communicating through an interpreter, and treatment planning with the patient to accommodate for potential future oral health problems.

Oral diseases for individuals with disabilities do not differ from those of individuals without disabilities. However, various factors related to an individual’s disability such as grasping on to a toothbrush or articulating the source of oral pain make it more difficult to prevent and treat dental disease. The actual treatment may also differ because the disease is typically addressed at a later stage and must often be adapted to the individual’s physical and cognitive impairments. Therefore, dental providers must make adjustments to the treatment and care for individuals with disabilities.

What are some common changes in the oral cavity encountered in older adults with disabilities?

Certain oral conditions appear more often in persons with specific disabilities due in part because of the disability but also because of the behavior patterns that go hand-in-hand with the actual disability. For example, in persons with multiple forms of mental retardation, there is an altered eruption pattern of teeth. The altered eruption pattern is often times due to over-retained baby teeth (primary teeth), or even the malformation of an individual's teeth. The delayed eruption patterns will lead to poor alignment and positioning (**malocclusion**) of teeth if left untreated.

Broken teeth are commonly seen on the front teeth of individuals with disabilities. This is commonly due to poor ambulatory skills, possible seizure disorders or possibly the characteristic behavioral tendencies of repetitive bodily movements and fixation on certain tasks as seen in people with autism. These tasks typically include chewing on hard non-edible objects that tend to break teeth.

Dry mouth (xerostomia) is a common and often overlooked oral health problem. Once considered an inevitable consequence of aging, it is now known that saliva production remains essentially unchanged in healthy elders, yet the secretion of the saliva may be indirectly dependent on the systemic health of a person as well as the number and type of medications that they are taking. Medications used to treat high blood pressure, heart disease, diabetes, allergies, depression and many other conditions have been found to cause this condition. Saliva maintains the oral environment by limiting bacteria, strengthening teeth, lubricating tissues and

enhancing taste sensation. Change in salivary flow may impair complete denture retention and increase oral trauma from dentures. Diminished salivary flow is associated with increased burning/soreness of the oral tissues, difficulty chewing, speaking, swallowing, oral infections and overall mouth feel, all of which can adversely affect food selection and dietary compliance.

Dry mouth can further contribute to the accumulation of food debris around teeth, which can lead to advanced stages of tooth decay, gum disease or even tooth loss.

Cavity or caries (tooth decay) is the result of bacteria breaking down the hard tooth structure. This process typically occurs when the food debris and bacteria are not adequately removed from the teeth. A diet high in sugar and carbohydrates also increases the incidence of tooth decay.

Decayed roots (root caries) occurs when gum recession and/or bone loss cause the exposure of the roots of teeth, the same process as tooth decay occurs, the difference being the decay is specifically on the root surface of the tooth. The exposed root is more susceptible to root caries if oral hygiene is not adequate.

Gum disease (gingivitis) has the appearance of red, inflamed and/or bleeding gum tissue. The inadequate removal of food and bacteria on the gum tissue causes gingivitis. The appropriate removal of debris from the gum tissue makes this oral condition reversible.

If left attached to teeth for longer periods, bacteria can cause irreversible bone loss and other tissue abnormalities (periodontitis). In its more advanced stages this oral condition leads to tooth mobility and even tooth loss.

Missing teeth (tooth loss) can be a very upsetting trial in one's life particularly if the missing teeth are not replaced. The three most common causes of tooth loss are: advanced tooth decay, advanced periodontal disease, and trauma from falls or accidents. Many options are available today for patients seeking treatment to replace their missing teeth.

Tooth replacement (dental prosthesis) is done to fill the spaces left by missing teeth. The need to restore chewing ability and esthetic value can play an important role to help improve a patient's quality of life. Appropriate treatment options should be discussed with the dentist following a clinical examination.

Bad breath (halitosis) is caused by a number of factors. It is often due to upper respiratory conditions caused by excessive mucous buildup, infections or even poor digestion. However, halitosis can very easily originate in the oral cavity due to inadequate oral hygiene, large cavities or even advanced periodontitis.

Food pocketing (pouching) is a condition where individuals who are unable to chew or swallow for any of the above mentioned reasons accumulate their food between their cheeks/lips and their gums. Many medications are coated with sugar to help patients swallow and pouching of food debris and medications not only results in significant dental and medical consequences but it also leads to malnutrition.

Regurgitation (rumination) is a characteristic seen in many individuals with mental disabilities. With this condition, individuals swallow their food and then regurgitate it with the stomach fluids/acids leading to severe indigestion and malnutrition. Often times in patients, who have excessive drooling of saliva, dental professionals will need

to consider the problems with pouching and regurgitation as well.

What to look for in dental treatment for older adults with disabilities?

Following a comprehensive clinical examination, the dentist will present treatment options to the patient and/or caregiver or family member.

Older people are keeping their natural teeth more now than ever before. Even though dental statistics for aging individuals with disabilities are not well documented, it would not be surprising to see a higher frequency of advanced and neglected dental problems in this population.

The dental treatment plan should be formulated according to accepted dental practice and take into consideration some basic factors such as:

- Addressing the patient's immediate pain or infection
- Patient's mental status- the level of disability, understanding and communication, psychological and social needs
- The effects of the current oral condition on the quality of life
- Physical impairments
- Patient capacity for care management
- Financial considerations

Recommendations for appropriate oral hygiene include:

Brushing teeth after each meal and before bedtime. Toothbrushes can be modified to enable people with physical and mental disabilities to brush their own teeth and decrease the incidence of pouching (see section on "adaptive aids"). Certain electric toothbrushes may improve patient compliance as well.



Proper method of brushing teeth at a 45 degree angle to the teeth with a soft bristled toothbrush

Use of **fluoride toothpaste** or **gel** has been shown to maximize the effects of a good oral health promotion and disease prevention regimen.

Flossing should be accomplished daily, however, it may be difficult for individuals with certain disabilities to perform such tasks. A second person may be required to perform flossing if this person is adequately trained and feels comfortable to do so. Flossing helps prevent the accumulation of food debris between the teeth that lead to various types of dental disease.



Demonstrating flossing technique by moving the floss by the gum-line of each tooth

Mouthwashes or **rinses** are beneficial in managing gingivitis and periodontal disease under the direction and care of a dentist or a hygienist. Mouthwashes should be swished and spit out (never swallowed); patients who might swallow a rinse could benefit from its application with a toothbrush or cotton swab rather than rinsing. For these patients (also indicated in other patients), it

is recommended to use a prescription mouthwash with the active ingredient “chlorhexidine”.

Dietary counseling is necessary for long-term prevention of dental disease, weight management and overall health. This is especially significant in individuals with a compromised health status and individuals having difficulty chewing or swallowing.

Dental recall is the term utilized for follow-up visits to the dentist and/or hygienists and should be planned in accordance with the patient’s needs and abilities. People with severe dental disease may need to be seen every two or three months, or more often if necessary and then the visits can be adjusted to more routine intervals of every four to six months thereafter.

Some important issues to consider when selecting a dentist for the care of an individual with disabilities should include:

Transportation: Is dental office/health center easily accessible by motor vehicle? Is public transportation available to and from the office? Is it in a convenient location?

Building (physical structure and environment): Can the parking lot accommodate a chair-van? Is there a ramp available to facilitate transport of a person in a wheelchair or a walker? Are the treatment rooms or restrooms wheelchair accessible? Are the walkways wide enough to accommodate wheelchairs, walkers or caregivers supporting immobile patients?

Training/education/experience: Does the dental professional (dentist or hygienist) provide special care dentistry? Have they had training in special care dentistry? If needed, can treatment be rendered in a hospital setting? Does the dental

care provider feel comfortable in providing care for special needs patients? Are the hours convenient?

Treatment goals: Appropriate patient treatment goals include stabilizing or improving the oral condition of the patients who have not received dental care in the recent past. Stabilization of the oral condition keeps individuals who have not received routine care free of acute disease.

Most of the acute oral conditions that are commonly seen in older adults as well as in individuals who have physical, mental or developmental disabilities have been discussed in this fact sheet. However, a clinical examination may reveal other oral conditions that will need appropriate or even immediate care. This is the reason why a comprehensive clinical exam cannot be over emphasized.

Once the patient is stabilized from acute disease, the next step will be the restoration of the patient's oral health and function followed by an appropriate maintenance schedule designed to oversee the patient's re-established oral health.

What steps should older adults with disabilities and their caretakers take to assist in the prevention and maintenance of the oral cavity?

Given the patient's level of impairment, the first step in obtaining compliance with oral hygiene recommendations is by promoting the patient's involvement through education and demonstration. This level of involvement maximizes the patient's acceptance of their oral condition and partially promotes their independence with respect to their oral health. If the patient is unable to participate in the educational/instructional process the caregiver is encouraged to assume this responsibility for the patient.

Educating the family members or other caregivers is also critical for ensuring appropriate and regular supervision of daily oral hygiene. Caregivers should monitor the patient's oral care daily and provide oral care assistance when the patient is unable to do so. Such care can be facilitated with proper positioning with the aid of pillows, beanbags, airbags and smaller/larger chairs.

Certain "adaptive aids" such as large sized toothbrush handles, or making two cuts on either end of a racquetball or tennis ball and sliding the handle of a toothbrush through the two cuts may improve the manual dexterity and physical manipulation of a toothbrush. Other useful and appropriate material used in the oral health care of an individual with physical disabilities may include the use of electric toothbrushes, anti-microbial mouth rinses and oral lubricants that resolve oral discomfort associated with the gum tissues.

Depending on where the individual with the disability resides (home, nursing home, institution), the primary care giver can be a parent, family member, nurse's aid, nurse practitioner and/ or other additional persons. If oral hygiene care is seen as another shared responsibility, then obtaining assistance to provide basic oral hygiene for the patient may be helpful in decreasing the level of responsibility for the primary care giver. This could provide an additional monitoring system for the patient's oral hygiene routine as well.

Are there barriers in treating older adults with disabilities?

Aside from the oral health care supports needed by many individuals with disabilities there are other significant barriers that prevent access to proper oral health care.

Insufficient numbers of dental health providers

One barrier includes the low number of dental health providers trained to treat people with disabilities.

Most dentists already treat older adults with certain physical impairments and medical conditions. As health care improves and many of the once acute and advanced conditions become chronic or manageable conditions, these patients will continue to grow in number and seek care from traditional private or community based services. At the same time, the numbers of individuals who have long-term disabilities continue to live longer because of improvements in the management of their conditions through various social and medical services.

Greater numbers of patients with mental retardation and related developmental disabilities require oral health care that accommodates their impairments, including physical and behavioral support during the dental treatment.

Informed consent and treatment decisions

A major determining factor in providing any type of treatment accommodation for the patient with a disability is the need to obtain informed consent for treatment. Most individuals with mental retardation have legal guardians or caretakers who are required to consent to the proposed treatment.

The person who provides consent also needs to understand that in certain instances, such as individuals with severe disabilities, it is neither possible nor feasible to render care as doing so may endanger or have no effect on the patient's health or quality of life.

The determination of providing care or no care by the health professional is typically a function of several factors such as a thorough understanding of the patient's condition, the level of comfort and

training of the health professional and the availability of the financial resources.

Inadequate financial coverage

Another barrier is the poor reimbursement for dental services that clearly prevents properly addressing the dental needs of individuals with special needs. The lack of adequate financial coverage may dictate certain compromises in the dental treatment plan.

Medicare is the largest federally funded health care system in United States, yet it does not even include a specific dental component.

Medicaid can be a source of payment for dental services but not all state Medicaid plans offer dental care coverage for adults (i.e., over age 18), so typically dental coverage is limited and varied among states. Also, a majority of dentists in most states are not Medicaid providers, so the scope of dental services is even more limited through Medicaid.

Another variable that further complicates issues for Medicaid coverage in many states are the eligibility restrictions for adults due to the level of disability. In other words, adults who may have a "lower" yet still significant level of disability (mild to moderate level of disability) may not be eligible for Medicaid.

Sometimes reimbursement, although at a lower level, is available for certain types of dental care through Medicaid Waiver Programs, grants through local and state dental societies/ associations or through the certain guidelines with the Developmental Disabilities Councils. State dental societies are good resources to receive more information about these programs.

State run agencies such as public health clinics and community health centers can also serve as

resources for obtaining the proper access to oral health care. Many individuals with disabilities have access to social workers, support coordinators or caseworkers that may be able to assist in obtaining full or partial funding for specific dental services.

Why Oral Health?

There is a significant relationship between general health and oral health. For example, oral health and nutrition share a unique reciprocal relationship. The condition of the teeth and supporting tissue impacts nutritional intake, quality of life and systemic health. The oral cavity is often marked as a site where signs and symptoms of many systemic diseases are first manifested. Oral health is much more than healthy teeth and gums, it is integral to general health and the quality of life as measured along social, economic and psychological dimensions.

Where to get additional information on oral health care and aging?

American Dental Association- www.ada.org
Listing of local and state dental associations/
societies
211 E. Chicago Avenue
Chicago, Illinois 60611
Tel: 800-621-8099

American Dental Education Association-
www.adea.org
Directory of dental and dental hygiene schools
1625 Massachusetts Ave, N.W.
Washington, D.C. 20036
Tel: 202-667-9433

Special Care Dentistry- www.foscod.org
Promotes oral health and well being of people with
special needs
211 E. Chicago Avenue
Suite 948
Chicago, Illinois 60611
Tel: 800-621-8099

Specialized Care Company-
www.specializedcare.com
Specialized products to facilitate the delivery of
oral health services
206 Woodland Road
Hampton, NH 03842-1542
Tel: 800-722-7375

National Oral Health Information Clearinghouse
(NOHIC)
www.nohic.nidcr.nih.gov
A service of the National Institute of Dental and
Craniofacial Research, provides oral health
information needs for special care patients
1 NOHIC Way
Bethesda, Maryland 20892-3500
Tel: 301-402-7064

American Society for Geriatric Dentistry
Advocacy for improved oral health of older adults
211 E. Chicago Avenue
16th Floor
Chicago, Illinois 60611
Tel: 800-621-8099

International Association for Disability and Oral
Health- www.iadh.org
International advocacy for quality oral health for
persons with disabilities

American Dental Hygienists' Association-
www.adha.org
444 North Michigan Avenue
Chicago, Illinois 61611
Tel: 312-440-8900

Special Smiles- www.specialsmiles.org
Provides links for special care patients with local dentists who are registered with this service
Special Olympics International
1325 G Street, NW
Suite 500
Washington, DC 20005

Laclede, Inc.- www.laclede.com
Dry mouth products and oral care products
2030 East University Drive
Rancho Dominguez, California 90220
1-800-922-5856

References:

1. Waldman, H.B., Perlman, S. P.: Children with disabilities are aging out of care. J Dent Child 64:385-390, 1997
2. Cormier, P.P.: Who is handicapped: the patient or the provider? J Dent Educ, 46:166-169, 1982
3. Waldman, H. B.; Perlman, S. P.; Swerdloff, M.: What if dentists did not treat people with disabilities? J Dent Child 65:96-101 1998
4. Perlman, S. P.: Helping special olympics athletes sport good smiles: an effort to reach out to people with special needs. Dent Clin North Amer 44:1: 2000

5. Dwyer, R.A.: Access to quality dental care for persons with developmental disabilities. Spec Care Dent 1997
6. University of Florida Dental School, www.dental.ufl.edu/Disabilities/htm
7. Henshaw, M. M.; Calabrese, J.M.: Oral health and Nutrition in the Elderly. Nutrition in Clinical Care, Volume 4: Number 1: January/February 2001

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<http://www.uic.edu/orgs/rrtcamlr/index.html>

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