



COMMONWEALTH of VIRGINIA

DEPARTMENT OF BEHAVIORAL HEALTH AND DEVELOPMENTAL SERVICES

Post Office Box 1797
Richmond, Virginia 23218-1797

Telephone (804) 786-3921
Fax (804) 371-6638
www.dbhds.virginia.gov

ALISON G. LAND, FACHE
COMMISSIONER

Office of Integrated Health Health & Safety Alert/Information

Dental Health Awareness Health & Safety Alert

Dental Health Introduction

The health of a person's teeth, gums and tongue has been directly connected to overall physical health. Poor oral health can impact an individual's quality of life, the ability to eat, sleep, and live without pain (1) (12) (16).

The lips, teeth, the bony portion of the roof of the mouth (hard palate), the muscular back part of the roof of the mouth (soft palate), the area behind the wisdom teeth (retro-molar trigone), the front of the tongue, the gums (gingiva), the inner lining of the lips and cheeks (buccal mucosa) and the floor of the mouth are all parts of the mouth (Figure 1) (17).

The mouth contains as many as 700 different types of bacteria (10). Saliva is the body's natural defense of washing away bacteria and neutralizing acids from foods. Regular brushing of the teeth and flossing keeps the bacteria in the mouth under control (12).

When proper oral hygiene is not done regularly bacteria increases which can lead to tooth decay (caries), gum disease (gingivitis), and deterioration of bone and gums (periodontal disease) (12).

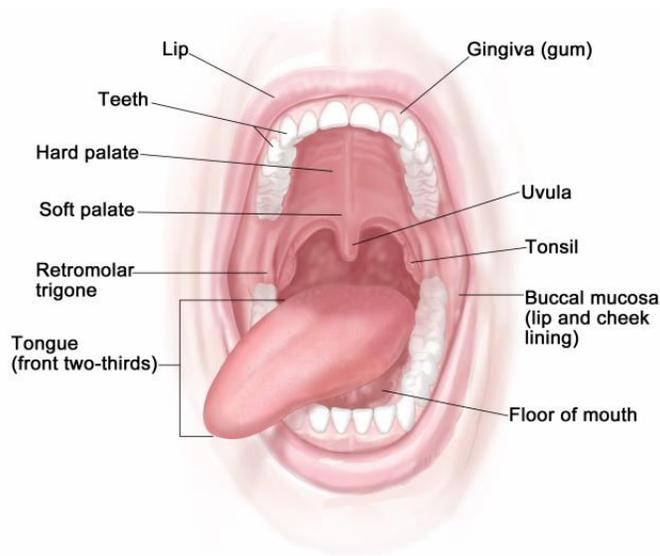


Figure 1. (17)

Problems in the mouth can cause illness in the rest of the body. Bacteria from the mouth has been linked to infections in the heart (Endocarditis) and the lungs (Pneumonia) (9) (12) (3).

Proper Oral Hygiene

Recommendations for good oral hygiene are:

- Teeth brushing at least twice a day with a soft-bristled brush using fluoride toothpaste.
- Flossing daily and/or seek recommendations from the dentist.
- Use of fluoride mouthwash, when possible, to remove food particles left behind after eating.
- Limit food high in added sugars and eat a balanced diet of 5 servings of fruits and vegetables daily.
- Replace toothbrush when bristles are splayed or worn.
- Schedule regular dental checkups and cleanings as recommended by the dentist.
- Avoid tobacco use.
- Contact the Dentist right away if problems with the mouth occur (18).

Disparity and Inequity Related to Dental Health

The 2000 U.S. Surgeons General's Report, *Oral Health in America*, concluded:

"There are profound and consequential disparities in the oral health of our citizens. Indeed, what amounts to a 'silent epidemic' of dental and oral diseases is affecting some population groups" (4).

Oral healthcare in the U.S. continues to be a symbol of inequity & disparity with little change over the last twenty years. Individuals who are uninsured, low-income, members of racial and/or ethnic minorities, immigrants, intellectually and/or developmentally disabled and those who live in rural communities have reduced access to dental care and/or quality oral health care (4) (10).

Since the founding of the first medical school in the U.S., dentistry has been considered autonomous and separate from primary healthcare. The two separate systems of care over the centuries has negatively impacted individuals with limited economic support, reduced health literacy skills, and psychosocial resources, making dental care more accessible to those with higher education levels and wealth (10).

As much as 43% of the population in the U.S. have no dental coverage. Fewer people are enrolling in dental schools, reducing the availability of dentists nationwide. Dental services are not covered by many of the major health insurances, but can be purchased separately, making dental care accessible to those who can afford the additional costs (10).

Starting on July 1, 2021, all adults receiving Medicaid in the Commonwealth of Virginia, will receive full dental benefits. Prior to this date those on Medicaid had a difficult time paying for the additional cost of dental care out of pocket due to the expense of services and availability of dental care (10).

New Adult Dental Coverage

WHO QUALIFIES?
All adults over the age of 21 years old who have health insurance through Medicaid are eligible to see a dentist.

WHEN DOES IT BEGIN?
July 1, 2021

WHAT IS COVERED?
Going to the dentist!
Teeth cleanings, filling cavities, dentures, and more!

QUESTIONS?
Call DentaQuest at 888.912.3456, or visit
www.vahealthcatalyst.org/AdultDentalBenefit/

Virginia Health Catalyst
The Intersection of Overall Health and Oral Health

Smiles For Children
Helping Your Child Smile Brighter

DentaQuest

Chronic Dental Conditions

The ability to speak, chew, swallow, smile, smell, taste, touch, and communicate a variety of emotions through facial expression with confidence and without pain, discomfort or disease of the face and/or mouth is the definition of good oral health (16) (3).

Tooth Caries

The most common oral health condition experienced by both children and adults are tooth caries (cavities) and/or tooth decay. Caries develop from a breakdown of tooth enamel as a result of acids produced by bacteria in the mouth found in plaque which collects around the gum line and on the crevices of the tooth's surfaces. Specifically, bacteria produced by eating foods and drinks high in carbohydrates causes the outer coating of the tooth (enamel) or root surface to break down (demineralize) (Figure 2) (14) (3).



Figure 2.

Tooth caries can develop into severe painful infections and abscess under the gums around the teeth. The infection can then spread to other parts of the body and cause sepsis, which can lead to death, if left untreated. Regular dental check-ups, teeth cleanings and the use of fluoride can significantly reduce tooth decay, but will not completely prevent it from occurring (14) (3).

Fluoride is a naturally occurring mineral, which helps prevent cavities by making the outer surface (enamel) of the tooth more resistant to the acid attacks, which cause tooth decay. Most over-the-counter toothpastes and mouthwashes contain fluoride, as well as many suburban communities add it to the water supply.

Primary care physicians (PCPs) in rural areas, often prescribe oral fluoride pills to their pediatric patients, and some rural communities offer fluoride treatments in the public school system. Ask the individual's PCP if oral fluoride pills are an option for the individual if you are unsure (6) (3) (18).

Periodontal Disease

Periodontal disease is an inflammation and/or infection of the gums (gingivitis) (Figure 3), which causes a breakdown of the bone supporting the teeth. If periodontal disease is left untreated, gums can become infected, and the bone surrounding the teeth deteriorates causing the teeth to become loose, which may eventually lead to an extraction (tooth removal).

Two main causes of periodontal disease are poor oral hygiene and tobacco use. Genetic susceptibility to tooth decay, as well as chronic health conditions, such as diabetes, and autoimmune diseases, also increase risk for developing periodontal disease (3) (18).



Figure 3.

Oral Cancer

Cancers of the lip, and the oropharynx (part of the throat at the back of the mouth) are considered oral cancers. In the United States, the rates of oral cancers are three times higher in males than females. Studies have shown a connection to the human papillomavirus (HPV) in some oral cancers. Early screening and detection is key to reducing the risk for developing oral cancer (Figure 4) (3) (18).



Figure 4.

Dental Health and Individuals with Intellectual and Developmental Disabilities (I/DD)

Poor oral health is the second most common health condition affecting individuals with intellectual and developmental disabilities (I/DD) (5) (16) (13).

Many individuals with I/DD are fully or partly dependent on their caregivers to assist them with oral care needs and/or have inadequate brushing techniques (7) (16) (13).

Factors contributing to poor oral health for the individual with I/DD are:

- The degree and/or level of ID affecting understanding of the importance of oral health.
- Level of physical independence when performing tasks such as brushing teeth.
- Underlying health conditions such as dysphagia or history of aspirations.
- Living situations which impact access to dental care.
- Dental anxiety, fear and/or the capability to tolerate dental treatments.
- Behaviors and/or sensory impairment affecting their ability to cooperate during dental treatments.
- Age of the individual.
- Other co-occurring disabilities such as autism, which can cause sensory issues that negatively impact the individual's compliance with brushing (e.g. tongue thrusting, hyper-gag reflex, etc.) (7) (11) (16) (13).

ID-related health challenges, which may impact an individual's ability to receive adequate dental care are:

- Behavior problems ranging from fidgeting to violent temper tantrums, and/or self-injurious behaviors.
- Mobility problems requiring assist to transfer into the dental chair with assistance.
- Neuromuscular problems affecting the mouth such as rigid or loose facial muscles, drooling, gagging and swallowing issues.
- Uncontrolled body movements such as tardive dyskinesia.
- Cardiac disorders common in individuals diagnosed with Down syndrome and other genetically linked ID disorders.
- Gastroesophageal reflux (GERD) and rumination, which is common in individuals diagnosed with ID (8).
- Uncontrolled Epilepsy and seizure disorders.

- Visual impairments along with hearing loss and/or deafness.
- Latex allergies.
- Adverse medication side effects such as dry mouth (Xerostomia) (15) (16) (7).

Some common oral health issues affecting individuals with I/DD are:

- Tooth caries (cavities) and/or tooth decay associated with diet and oral hygiene habits (Figure 2) (15) (16).
- Periodontal disease occurs at a younger age due to poor oral hygiene, damaging oral habits, and level of disability (Figure 3) (15) (16).
- Gingival hyperplasia (an overgrowth of gum tissue around the teeth) as a result of medications such as anticonvulsants, antihypertensive and immunosuppressant's (Figure 5) (15) (16).



Figure 5.

- Malocclusion (imperfect positioning of the teeth when the jaws are closed) are associated with intraoral and perioral muscular abnormalities, delayed tooth eruption, and underdevelopment of the upper jaw, nose and eye sockets (Figure 6) (15) (16).



Figure 6.

- Damaging oral habits such as:
 - Bruxism is awake teeth grinding, cheek biting, nail biting.
 - Tongue thrusting where the tongue is pushed against the front teeth forcefully.
 - Food pouching the holding chewed food in the cheek.

- Rumination is the chewing food, swallowing, regurgitating the food back into the mouth and swallowed again.
- Pica is eating objects and/or substances which are not food) and mouth breathing.
- Self-injurious behavior such as picking at the gums or biting the lips (15) (16).
- Oral malformations such as defects in tooth enamel, high lip lines, high palette, cleft palate, and varied number of teeth, size and shape (Figure 6) (15) (16).

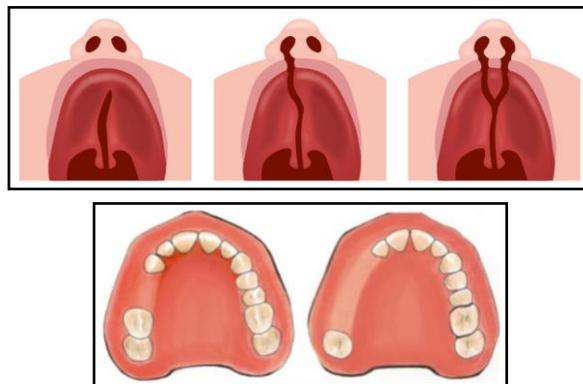


Figure 6.

- Edentulousness (the state of having no natural teeth), due to tooth extractions as an alternative to more extensive dental restorative interventions which leaves an individual with a decreased ability to chew foods properly, and the increased risk for choking and aspiration (7).
- Craniofacial anomalies such as asymmetry malformations and hypoplasia of the face and jaw can negatively impact the oral health of individuals with I/DD (Figure 7) (15) (16).



Figure 7.

- Oral injuries and/or physical trauma experienced from falls or accidents may occur more often among individuals with seizure disorders or cerebral palsy. Any fall or physical trauma which involves damage to the mouth requires immediate professional care (15) (16). **Take the individual immediately to their dentist, or to the nearest emergency room.**
- Diagnosing oral pain from stress or fear is often extremely challenging among individuals with I/DD who are unable to communicate. This may require their dentist to seek more information from the individual's primary care physician (PCP), psychiatrist and/or behavior analyst to help determine if a new behavior might actually be due to oral pain. Grimacing, guarding, food refusal, self-injurious behaviors, vocal outbursts, or emotional changes are common indicators of pain for among individuals with I/DD who are non-verbal and/or those who have communication difficulties (2).

Caregiver Considerations

- Caregivers and direct support professional (DSP) who receive oral health education training do a better job at assisting and positively influencing those they support with oral hygiene (5) (13).
- Experience, knowledge, a helpful attitude, encouraging behavior, and the confidence of the caregiver, all have a positive impact on the oral care compliance and health of individuals with I/DD (5) (13).
- To help in reducing an individual's anxiety and fear related to a dental visit, try to schedule the appointment at the time of day when the individual is usually at their best (16).
- Prior to a dental appointment consider scheduling a "get to know you visit" to help desensitize and familiarize the individual with I/DD to the dentist, allowing them to see where the office is located, and experience the waiting room, which has been shown to reduce fear, anxiety and resistant behaviors (15).



- Caregivers should locate and save an individual's tooth if it is damaged or knocked out of the mouth due to accidental fall or injury. Caregiver should locate the missing tooth or pieces of the fractured tooth and store in a tooth-saver kit to take with the individual to the dentist (Figure 8) (15).



Figure 8.

- Caregivers should be mindful of possible aspiration of tooth fragments if an individual has broken a tooth as the result of injury to their mouth during a fall or other accident. A chest x-ray may be required (15).
- When choosing a toothpaste and/or mouthwash check the label for to verify fluoride is added (6).
- Flavoring and or texture of toothpaste might be an issue for some individuals, check with the dentist for alternative suggestions.
- Adaptive toothbrushes can be used by caregivers to help the individual to perform or assist with daily oral hygiene. Individuals with I/DD should be involved in their own daily oral care whenever possible (Figure 9).



Figure 9.

Resources

The Office of Integrated Health (OIH) at DBHDS: If you have any questions about the information contained in this Health & Safety Alert, or need additional resources or support, please email your questions to the Office of Integrated Health's nursing team at: communitynursing@dbhds.virginia.gov

The OIH Dental Team: Was developed to assist individuals living in the community within the Commonwealth, the OIH Dental team took the program to a mobile platform. The mobile unit is a rolling dental office equipped to provide exams, x-rays, cleanings and basic fillings with tele-dentist oversight capability. The mobile unit serves individuals who may lack the ability to visit a dentist in their community. To qualify for OIH Dental services, the individual must be 21 years or older, diagnosed with an intellectual or developmental disability, and unable to secure dental services within a year, post training center closure. To find out more information and/or to contact the OIH Dental Team, please send an email to: dentalteam@dbhds.virginia.gov

The Virginia Department of Health's Individuals with Special Health Care Needs Program: The purpose of the Special Health Care Needs Oral Health Program is to improve access to dental services for individuals with special health care needs (ISHCN). This program provides oral health educational materials, and courses to medical/dental professionals, lay health workers, caseworkers, educators, direct support professionals, students training for the dental profession, and other individuals working with ISHCN. The courses are tailored to the audience and often cover many topics, including the importance of oral health care for ISHCN, commonly seen conditions with orofacial implications, disability etiquette, hygiene adaptations for people with home care challenges, and other topics related to oral health for ISHCN. <https://vdh.virginia.gov/oral-health>

Dental Care Every Day - A Caregiver's Guide

https://www.vdh.virginia.gov/content/uploads/sites/30/2018/01/DentalCareEveryday_NI_DCR_Feb2012.pdf

Virginia Health Catalyst: Ensuring all Virginians have equitable access to comprehensive health care that includes oral health. Virginia Health Catalyst created a strategic framework which creates a foundation for comprehensive health care based on these four interconnected systems, public health, state & local policies, clinical & community care and public awareness. To achieve comprehensive health care, each of these four pillars must be strong. These pillars guide their work and shape the lens through which they can advance health in the Commonwealth. <https://vahealthcatalyst.org/>

Virginia Health Catalyst Resource Library: <https://vahealthcatalyst.org/provider-resources/resource-library/>

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DBHDS Office of Licensing Regional Contacts:

<https://dbhds.virginia.gov/assets/doc/QMD/OL/licensing-regional-contacts.pdf>

DBHDS Human Rights Department:

For more information on individuals' human rights in relation to psychotropic medications. <https://dbhds.virginia.gov/quality-management/human-rights>

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