

Welcome to the DSP supplemental training on identifying and responding to choking events. This training supplements the content available at https://web.partnership.vcu.edu/DSP\_orientation/index.html.

### Choking Risk

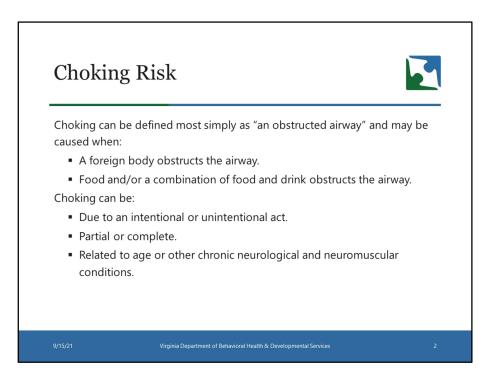


Learning Objectives for this training:

- Define choking
- Review signs and symptoms of choking
- Identify chronic conditions which increase risk
- Identify foods known to increase risk of choking
- Identify types of medications known to increase risk of choking
- Identify signs and symptoms of someone who may be choking
- Identify health care professional who is able to assess swallowing
- Identify behaviors that may increase risk of choking
- Identify steps which can be taken to prepare for a choking emergency

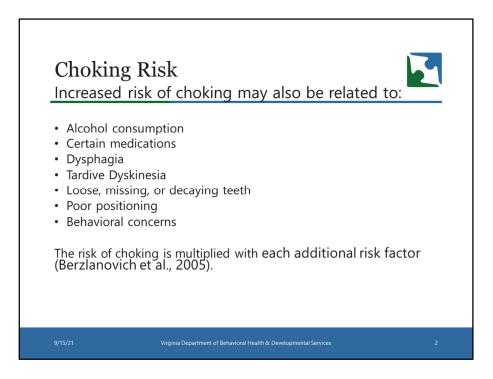
Virginia Department of Behavioral Health & Developmental Services

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Airway Obstruction/Choking Introduction (Page 1, OIH Choking Health & Safety Alert 2020)

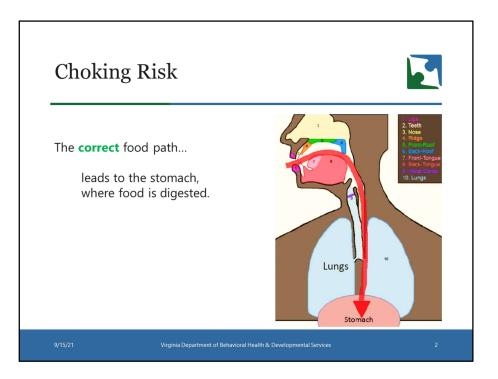
Choking (object in the airway) can be a partial or complete obstruction of the airway due to a foreign body (e.g. a bead, toy, etc.), whether intentional (pica) or unintentional (typically in childhood). Choking can also be a partial or complete obstruction of the airway due to food. Age or other chronic conditions can affect neurological and neuromuscular functioning, and put individuals at increased risk. An increased risk of choking has also been attributed to the consumption of alcohol, certain medications, dysphagia, tardive dyskinesia, poor dentition (loose, missing, or decaying teeth) and poor positioning. Some behaviors can also increase the risk of choking. The risk of choking is multiplied with each additional risk factor the individual has (Berzlanovich et al., 2005).

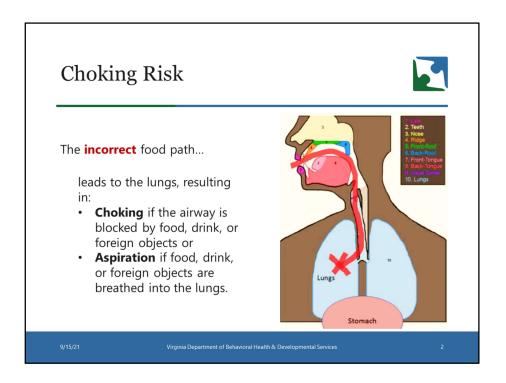


Dysphagia refers to difficulty swallowing foods or liquids, arising from the throat or esophagus, ranging from mild difficulty to complete and painful blockage.

Tardive dyskinesia (TD) involves involuntary movements of the tongue, lips, face, trunk, and extremities that occur in patients treated with long-term psychiatric medications.



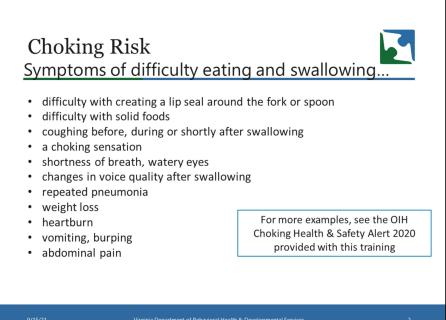




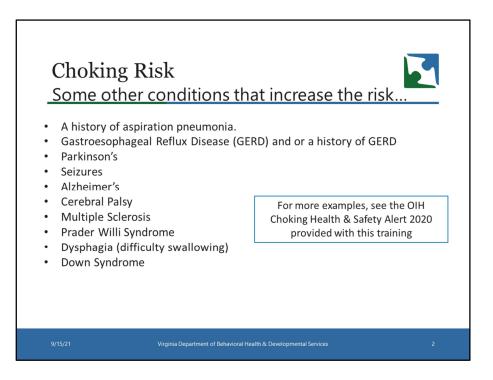
-Choking occurs when the airway is blocked by food, drink, or foreign objects.

- Aspiration occurs when food, drink, or foreign objects are breathed into the lungs (going down the wrong tube). It might happen during choking, but aspiration can also be silent, meaning that there is no outward sign

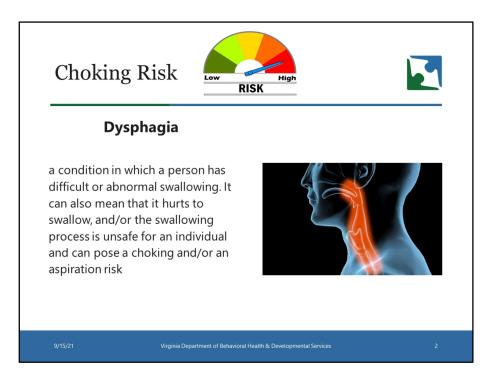
https://dbhdd.georgia.gov/sites/dbhdd.georgia.gov/files/related\_files/site\_page/Choking% 20and%20Aspiration%20Fact%20Sheet.pdf



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Factors/Conditions Which Increase Choking Risk (Page 3-4, OIH Choking Health & Safety Alert 2020)



# A Diagnosis of Dysphagia Can Increase Choking Risk (Page 2, OIH Choking Health & Safety Alert 2020)

What is dysphagia? If an individual is diagnosed with dysphagia it means they have difficult or abnormal swallowing. It can also mean that it hurts to swallow, and/or the swallowing process is unsafe for an individual and can pose a choking and/or an aspiration risk. Watch for the following signs and symptoms of dysphagia in individuals:

Frequent episodes of gagging, coughing or choking during or after eating/drinking.

Difficulty managing saliva (drooling).

Difficulty closing lips.

Wet vocal quality during or after eating/drinking.

Runny nose during or after eating/drinking.

Watery eyes during or after eating/drinking.

Frequent bouts with pneumonia.

Frequent upper respiratory infections.

Swallowing food whole in order to "get it down" fast without anyone noticing a problem. Eating/drinking quickly.

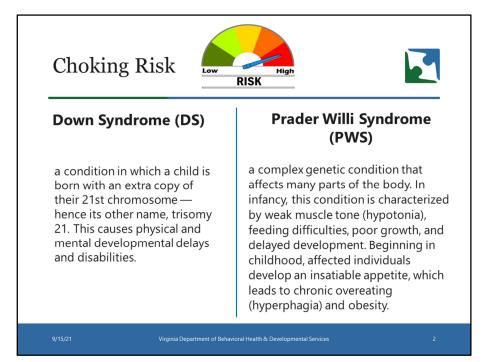
Extra effort or time to chew and/or swallow.

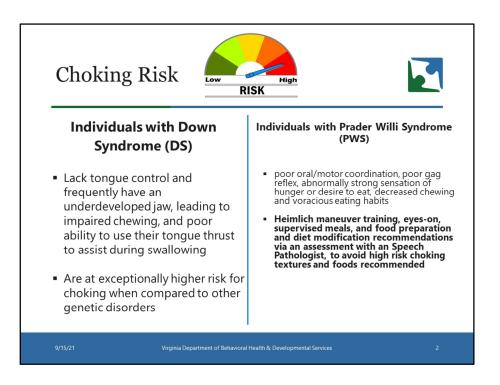
Pain with swallowing.

Pocketing food or liquid in cheeks.

Loss of food or liquid. Frequent vomiting. Weight loss or dehydration from inadequate intake. Weak facial muscles. Difficulty chewing (Bryant-Waugh, et al., 2019; Lindvall, et al., 2017; Thomas & Eddy, 2018).

If an individual you care for has any of the symptoms listed above, they may have dysphagia and may be at an increased risk for choking and aspiration. Please contact the individual's PCP at your earliest convenience to explain your concern. A referral to a speech language pathologist (SLP) for further assessment may be needed. Please be sure to take a list of all of the individual's medications to their appointment. Certain medications can increase choking risk.





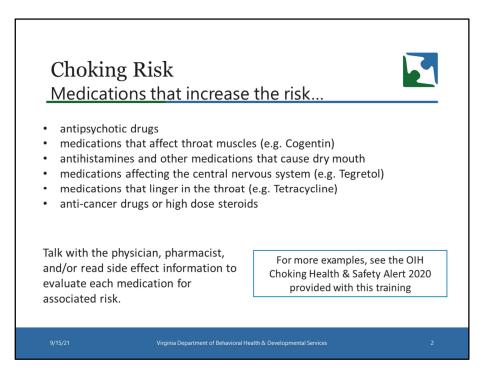
Any DD Diagnosis Can Increase Choking Risk (Page 5, OIH Choking Health & Safety Alert 2020)

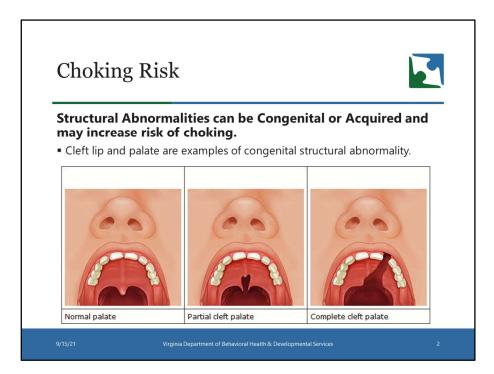
#### Down Syndrome

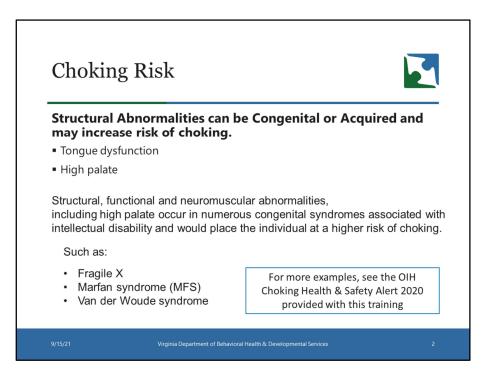
Among individuals with DD, research suggests that individuals with Down syndrome (Thacker et al., 2008) and those with Prader Willi Syndrome are at exceptionally high risk for choking, when compared to other genetic disorders (Stevenson et al., 2007). Individuals with Down Syndrome lack tongue control and frequently have an underdeveloped jaw, which can lead to impaired chewing, and poor ability to use their tongue thrust to assist during swallowing (Thacker et al., 2008).

#### Prader Willi Syndrome

Individuals with Prader Willi Syndrome (PWS) are at an increased risk for choking (Stevenson et al., 2007) due to poor oral/motor coordination, poor gag reflex, hypotonia, polyphagia or hyperphagia (abnormally strong sensation of hunger or desire to eat), decreased mastication and voracious eating habits ((Stevenson et al., 2007; Thacker et al., 2008). Researchers recommend implementation of preventive measures and education for family caregivers and group home care providers for all individuals diagnosed with PWS including the Heimlich maneuver, eyes-on, supervised meals, and food preparation and diet modification recommendations via an assessment with an SLP, to avoid high risk choking textures and foods (Stevenson et al., 2007).







Tongue dysfunction results in:

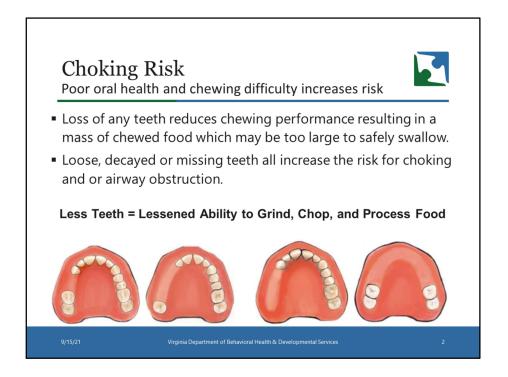
- Impaired chewing
- Impaired formation of a mass of chewed food ready to swallow
- Impaired transport of the chewed food
- Excessive retention of food in oral cavity

Tongue dysfunction increases choking risk because food can become dislodged when the individual reclines and can cause an airway obstruction.

#### Tongue dysfunction occurs in numerous congenital syndromes.

A high (but closed) palate can also result in an increased choking risk. Why? Because food can be trapped in a high palate while eating, but fall down into the mouth when the individual reclines.

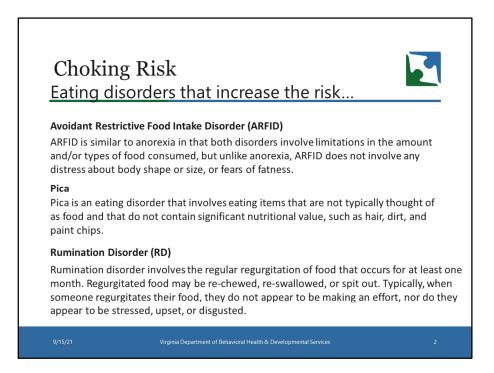
A high arched palate is a symptom of numerous congenital syndromes.



#### Missing Teeth (Poor Dentition), No Teeth (Edentulous), Loose Teeth, or Decaying Teeth Can Increase the Risk of Choking (Page 8, OIH Choking Health & Safety Alert 2020)

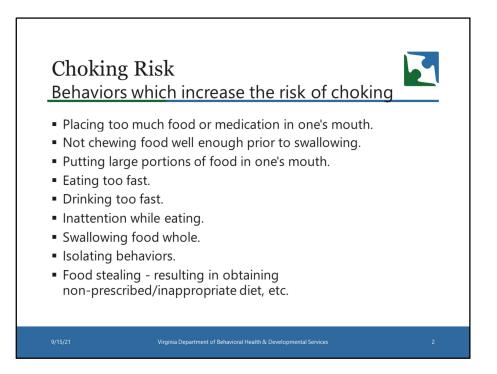
Loss of any teeth reduces masticatory performance. This can result in a mass of chewed food that may be too large to safely swallow. If an individual you care for has any loose, decayed or missing teeth, they are at an increased risk for choking (airway obstruction). Please contact the individual's PCP at your earliest convenience, to explain your concern. A referral to a speech language pathologist (SLP) for further assessment may be needed. Please be sure to take a list of all of the individual's medications to their appointment. As mentioned previously, certain medications can increase choking risk.

Chewing (mastication) falls under the SLP assessment area of "oral preparatory stage of swallowing". A speech language pathologist can assess someone with a chewing (mastication) disorder. The mouth and teeth begin the digestion process by breaking food into small pieces that can be formed into a bolus, which can then be swallowed. Saliva softens food, teeth grind food and the tongue manipulates food into a bolus. If an individual has difficulty with any part of this process, they may be at higher risk of choking and need to have an assessment completed by a Speech Language Pathologist or SLP.



Diagnosed Feeding or Eating Disorders Can Increase Choking Risk (Page 6, OIH Choking Health & Safety Alert 2020)

Some individuals may have sensory issues relating to food. This difficulty can be due to any of the reasons listed in this document or it may be due to a diagnosed feeding or eating disorder. Avoidant Restrictive Food Intake Disorder (ARFID), Pica, and Rumination Disorder (RD) are all characterized by avoidant and restrictive eating, which can lead to: a failure to meet nutritional and/or energy requirements; significant weight loss; or failure to gain expected weight; dependence on oral nutritional supplements or enteral feeding; nutritional deficiencies; and/or difficulties with psychosocial functioning. Individuals with ARFID may also restrict or avoid food intake for reasons that relate to the sensory aspects of food or eating (e.g., taste, smell, texture); lack of interest in food or eating; or because of the feared negative consequences (e.g. choking, vomiting) associated with eating (APA, 2013; Bryant-Waugh, et al., 2019; Lindvall, et al., 2017; Thomas & Eddy, 2018).



# Certain Behaviors can Increase Risk of Choking (Page 8, OIH Choking Health & Safety Alert 2020)

Behaviors which increase the risk of choking:

Placing too much food or medication in one's mouth.

Not chewing food well enough prior to swallowing.

Putting large portions of food in one's mouth.

Eating too fast.

Drinking too fast.

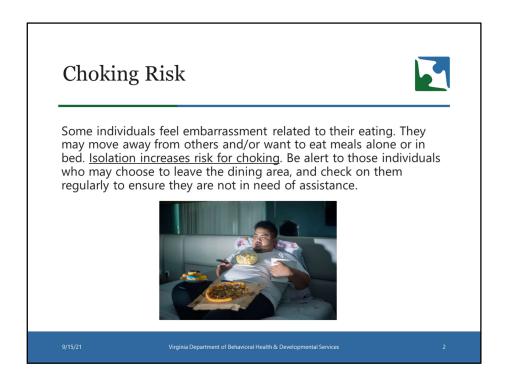
Inattention while eating.

Food stealing - resulting in obtaining non-prescribed/inappropriate diet, etc.

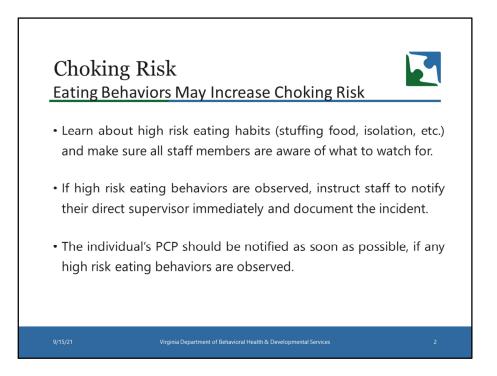
Swallowing food whole.

Isolating behaviors.

If an individual has any of the behaviors mentioned in this document, they are at an increased risk for choking (airway obstruction). Please contact the individual's PCP at your earliest convenience, to explain your concern. A referral to a speech language pathologist (SLP) and/or a Board Certified Behavior Analyst (BCBA) may be needed. Please be sure to take a list of all of the individual's medications to their appointment. As mentioned previously, certain medications can increase choking risk.

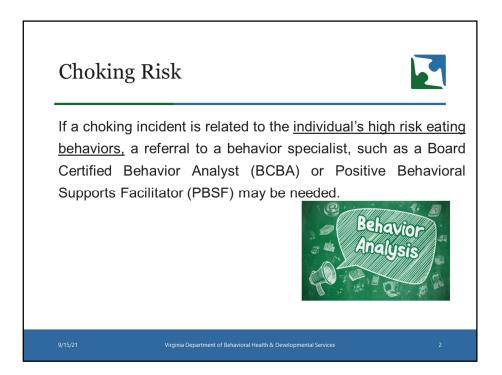


Some individuals may feel embarrassment when they have difficulty eating, and may move away from others or may want to eat their meals in their bedrooms. This type of behavior places those individuals at an increased risk because they are less likely to be near people who can help. When food is served, be alert to those who may choose to leave, and check on them to ensure they are not in need of assistance.



Certain Behaviors can Increase Risk of Choking (Page 7, OIH Choking Health & Safety Alert 2020)

Strategies for choking prevention should include caregiver education on eating habits of individuals (stuffing food, etc.) that can increase their risk of choking. Caregivers who observe any of the behaviors in the aforementioned list, should notify their direct supervisor immediately and/or follow their agency's policy for notification. The individual's PCP should be notified that a particular risky behavior has been observed, and a protocol for observation (at a minimum), should be developed with the help of a nurse, and/or an SLP, and/or a physician.



If the choking incident is related to the individual's behavior's (in any way), a referral to a specialist in behaviors, such as a Board Certified Behavior Analyst (BCBA) or a Positive Behavioral Supports Facilitator (PBSF) may be needed. A BCBA is a licensed healthcare professional who studies the behavior of children and adults and has experience and training in the development and execution of plans to improve or change a particular behavior, or behaviors. "Positive behavior support is an applied science that uses educational methods to expand an individual's behavior repertoire and systems change methods to redesign an individual's living environment to first enhance the individual's quality of life and, second, to minimize his or her problem behavior" (Carr, et al., 2002, p. 4) http://personcenteredpractices.org/launch\_vpbs.html

### Choking Risk Where to get help



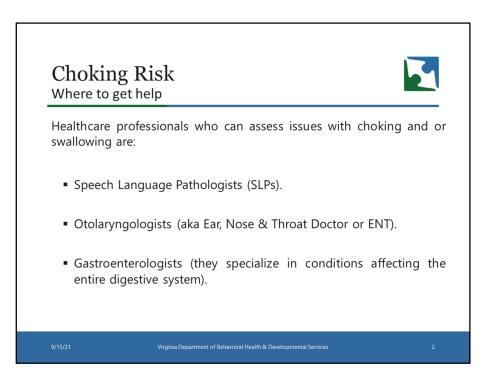
- All those at an increased risk for choking and/or aspiration for any condition mentioned on the previous slides (or any other which puts them at higher risk), should be evaluated by a healthcare professional as soon as possible.
- Schedule an appointment with <u>the individual's primary care physician</u> (PCP) at your earliest convenience for a referral to the appropriate specialist for an assessment. (Be sure to get a script for the assessment from the individual's PCP.)
- The individual's PCP will know which specialist to best assess the individual's particular condition and or their choking risk.

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#### (Page 3, 6, & 7, OIH Choking Health & Safety Alert 2020)

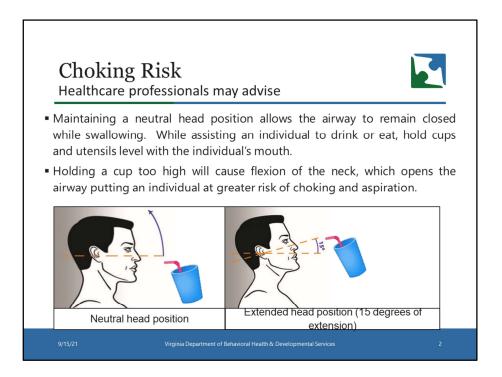
#### Health Conditions which Increase Risk of Choking (not all-inclusive):

If an individual you care for has any of the health conditions mentioned, they may be at an increased risk for choking (airway obstruction). Please contact the individual's PCP at your earliest convenience to explain your concern. A referral to a speech language pathologist (SLP) for further assessment may be needed. Please be sure to take a list of all of the individual's medications to the appointment. Certain medications can increase choking risk.



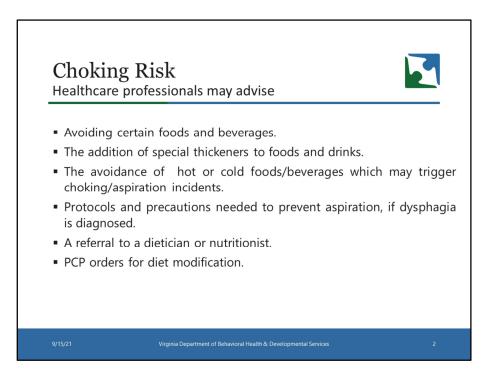
A meal time and or eating protocol including observations (at a minimum), should be developed with the assistance of a healthcare professional. Please follow all physician-ordered protocols.

If you need additional guidance on eating protocols, please ask the individual's PCP for a referral for assessment with a Speech and Language Pathologist, commonly known as an SLP.



# Speech Language Pathology (SLP) Assessments (Page 11, OIH Choking Health & Safety Alert 2020)

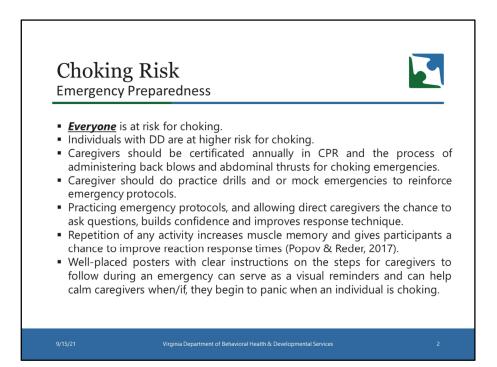
When holding a cup for an individual to take a drink from, be sure to hold the cup level with their mouth. Holding a cup too high can cause flexion which opens the airway, and can put individuals at greater risk of choking and aspiration.



### Speech Language Pathology (SLP) Assessments (Page 11 & 12, OIH Choking Health & Safety Alert 2020)

For some people, treatment may involve avoiding certain foods. Others may not be able to drink thin liquids and may need to have special thickeners added to them prior to consumption. Other people may have to avoid hot or cold foods or drinks, which can trigger choking incidents in some people. If the individual is diagnosed with dysphagia, caregivers will be instructed on the protocols and precautions needed to prevent aspiration. This might include diet modification or thickening of liquids, positioning, protocols for eating and drinking, etc. A referral to a dietician or nutritionist may be recommended. PCP orders for diet modification may also be needed.

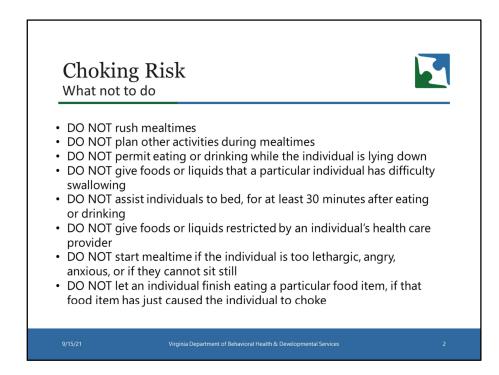
The individual's PCP, a nurse, a dietician and/or a nutritionist can help you develop a wellthought out protocol for eating and drinking for someone who has a high choking risk. *Do not attempt to formulate protocols without a healthcare professional's input and written order affirming approval. (The SLP may write the protocols, and the PCP will sign them, in some situations.)* Please make sure all caregivers in all settings the individual visits on a regular basis are aware of these changes and protocols. Make sure all changes, protocols, *etc.* are included in the individual's ISP (or IEP, if the individual is still in school), and update them as needed.



#### Caregiver Tips (Page 12, OIH Choking Health & Safety Alert 2020) Emergency Preparedness to Lower the Risk of Choking Fatalities

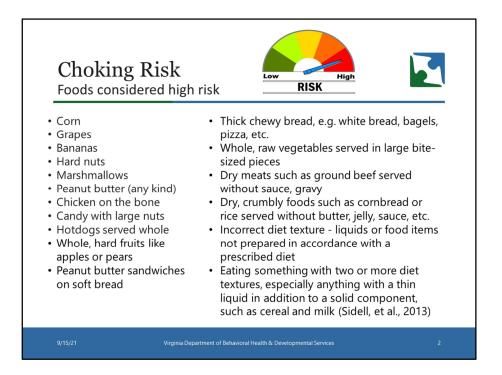
**Everyone** is at risk for choking. Individuals with DD are at higher risk for choking. Caregivers should learn the Heimlich maneuver and CPR in a certified first-aid training course and practice putting both into action during your emergency preparedness training drills. The use of caregiver drills or mock emergencies in order to reinforce emergency protocols for choking is a good idea. Practicing an emergency protocol, and allowing direct caregivers to have a chance to ask questions, can build confidence and improve technique. Repetition of any activity increases memory of any skill (Popov & Reder, 2017) and gives participants a chance to build their skills. Having all staff trained in the Heimlich maneuver, CPR and First Aid represents best practice. It is also important to keep skill requirements current with refresher courses.

In addition, the use of well-displayed posters with clear instructions on the steps a caregiver should follow (for both the Heimlich maneuver and CPR) is a good idea. A poster can serve as a visual reminder of the steps needed, (e.g. the placement of hands, the sequence, the number of repetitions, etc.), and can help calm caregivers' nerves when, or if, they begin to panic and cannot remember what to do, when an individual is choking.



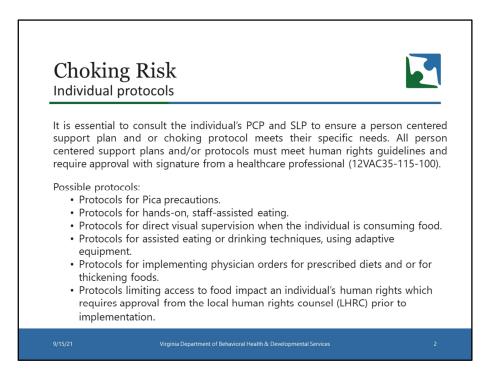
#### What Not to Do (Page 13, OIH Choking Health & Safety Alert 2020)

Be sure to include what to do, as well, in a person's individualized protocol.

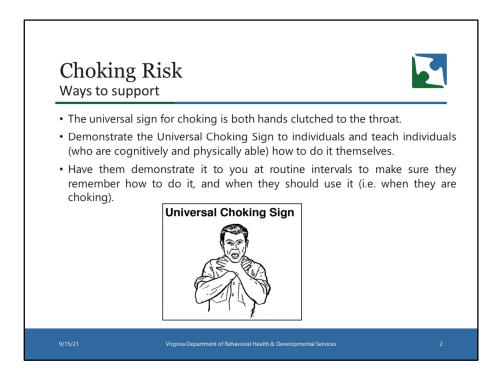


# Make Sure Staff Are Aware of Foods Identified as "High Risk" for Choking (Page 13, OIH Choking Health & Safety Alert 2020)

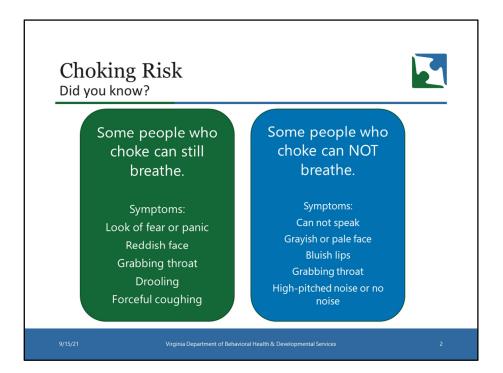
Be sure to include high risk foods that are specific to the person in their individualized protocols.

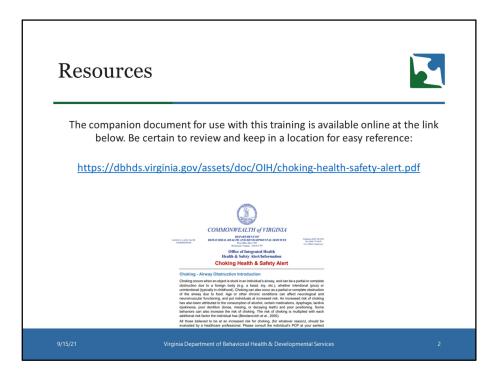


Protocols for Lowering the Risk of Choking (not all inclusive) (Page 16, OIH Choking Health & Safety Alert 2020)



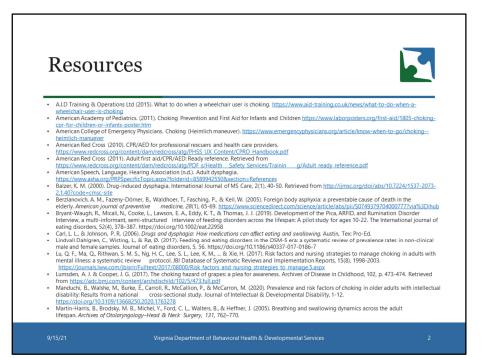
Protocols for Lowering the Risk of Choking (not all inclusive) (Page 16, OIH Choking Health & Safety Alert 2020)

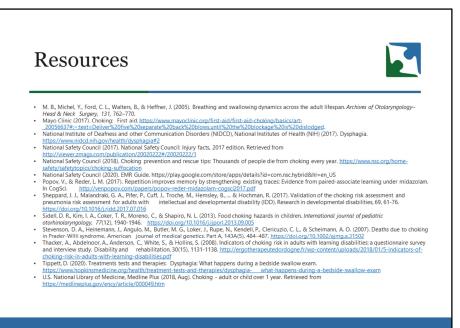




Resources		
Office of Integrated H of-integrated-health	ealth (OIH) at DBHDS: <u>http://www.db</u>	hds.virginia.gov/office-
Newsletters & Safety integrated-health/saf	Alerts Archive: <u>http://www.dbhds.virg</u> ety-alerts-archive	inia.gov/office-of-
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