



# COMMONWEALTH of VIRGINIA

Nelson Smith  
Commissioner

## 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

### Office of Integrated Health – Health Supports Network

## Choking Health & Safety Alert

### Introduction

Choking occurs when a foreign object gets stuck in the airway blocking the flow of oxygen to the brain. The obstruction can be partial or complete depending on the size and shape of the object (e.g., food, toy, etc.) (10) (17).

Choking can happen to anyone. Choking is an emergency situation, brain damage can start to occur within 4 to 6 minutes when an individual cannot breathe, leading to death if nothing is done to clear the airway (10) (16).

The swallowing process involves coordination between brain, the nervous system and muscular movements in the head and neck (neurological/neuromuscular). Over 26 muscles and 30 nerves are involved in the normal swallowing process. The slightest decline in brain, nerve, or muscle function can result in swallowing difficulty and increase the risk of choking (23).

Typically, young children, older adults, and individual who have any type of reduced brain function, nervous system delays, and/or muscle tone weakness, such as individuals with intellectual and developmental disabilities, are at increased risk for choking (16).

Most individuals with IDD who experience fatal choking events have had at least one previous choking episode. If an individual with IDD has experienced even a minor choking event it is the **RED** flag to contact their primary care physician (PCP) immediately and request a referral to a Speech Language Pathologist (SLP).

Individuals with IDD who have experienced any type of choking event should have a swallow study completed by a SLP as soon as possible (16).



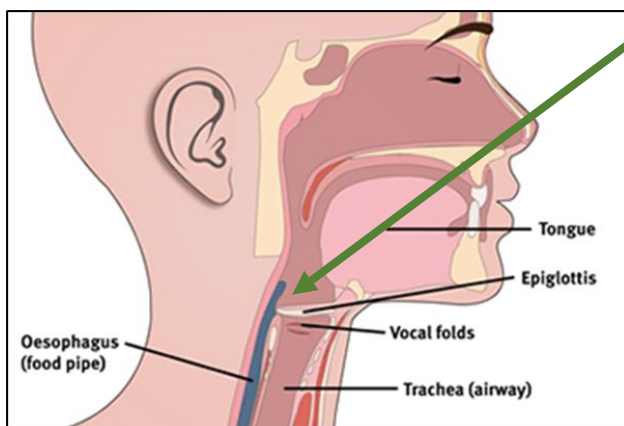
## Swallowing & Breathing

Swallowing is a complex process requiring muscles and nerves to receive food into the mouth, chew it, then move it back to the throat and down to the stomach while breathing.

During the first stage, the tongue moves the food or liquid around in the mouth. Food is chewed by the teeth and mixed with saliva to form a soft ball called a food bolus.

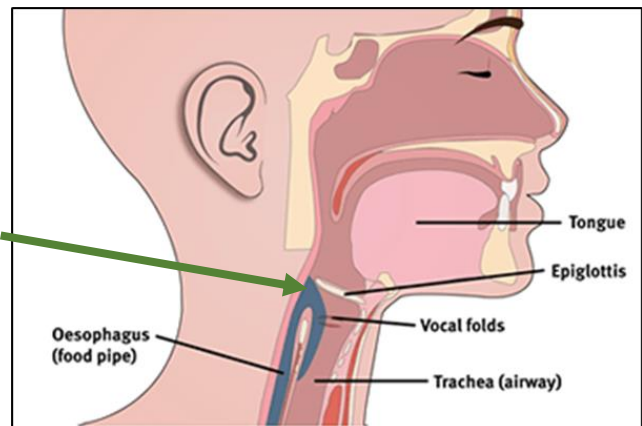
Individuals with tongue function trouble may have difficulties with creating a good lip seal around a fork or spoon, chewing solid foods, forming a food bolus, or moving the bolus to the back of the mouth.

The next stage of swallowing begins when the tongue pushes the bolus of food or liquid to the back of the mouth. This motion triggers a swallowing response which passes the food down through the throat toward the stomach (12) (23).



In normal swallowing the vocal folds cover the airway during swallowing, so foods and liquids travel into the stomach, not into the lungs.

In dysfunctional swallowing (dysphagia) the vocal folds may not cover the airway completely allowing foods and liquids to travel into the lungs causing choking and aspiration.



Common symptoms of swallowing difficulty include:

- Coughing before, during or shortly after swallowing.
- A choking sensation.
- Shortness of breath.
- Changes in voice quality after swallowing.
- Repeated episodes of pneumonia.
- Weight loss (12) (23).

## Increased Choking Risk

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

An individual should be assessed by their PCP for choking risk and trouble swallowing (dysphagia). Ask for a referral to an SLP for further assessment as needed if the individual has experienced any type of choking episode (8).

Below is a list of some diagnoses and health conditions known to increase the risk of choking. If an individual has any of these health conditions, they may be at an increased risk for choking.

- Dysphagia (difficulty swallowing).
- Missing teeth (poor dentition), no teeth (edentulous), loose teeth, or decayed teeth.
- Misalignment of the jaw or teeth.
- Cleft Palate.
- Dentures.
- Age: 65+
- History of aspiration pneumonia.
- History of dehydration (25).
- Gastroesophageal reflux disease (GERD) and or a history of GERD.
- Any neurological disorder.
- All types of dementia.
- Cerebral Palsy.
- Multiple Sclerosis.
- Prader Willi syndrome (a genetic disorder characterized by intellectual disability).
- Down syndrome (a genetic disorder characterized by intellectual disability).
- History of stroke (3).
- Seizure disorders.
- Muscular disorders (30) (16).

### Choking and Individuals with Intellectual and Developmental Disabilities (IDD)

Dysphagia is the single greatest choking risk in adults with IDD. Choking is a leading cause of death for individuals with IDD (26) (16).

As many as 80% of children born with IDD have swallowing difficulty resulting in emergency choking situations, extreme difficulties with feeding and swallowing along with aspiration-based infections (pneumonia) affecting sinuses, the middle ears, and lungs (28).

All individuals with IDD have some degree of decreased brain function, diminished nervous system responses, and reduced muscle coordination resulting in some degree of dysphagia ranging from mild to severe putting them at very high risk for choking (26) (16).

This increased risk of choking has been connected to some medications, difficulty swallowing (dysphagia), poor dentition such as loose, missing, or decaying teeth, reduced tongue control, and/or poor body positioning when eating or drinking. The risk of choking goes up with each additional risk factor the individual experiences (26) (16).

Distracted behaviors during mealtime, such as food refusal, eating quickly, over stuffing food into the mouth, and eating non-food items (pica) have also been linked to choking risk for individual with IDD (16).

Some individuals with IDD have difficulty with tongue movements such as controlling food within the mouth. The result is food does not get chopped up well prior to swallowing and increases the risk for choking.

Other signs of choking risk are:

- Food around the mouth during and after eating.
- Food falling out of the mouth while eating.
- Poor speech which is not easily understood (enunciation).
- Tongue protrusion from the mouth or drooling.
- Cannot lick upper or lower lip.
- Cannot lick food around the outside of their mouth.
- Cannot stick tongue out.
- Cannot move tongue from left to right and up or down.
- Cannot make a clicking sound with the tongue.
- Cannot roll the tongue (26) (16).



### **Down Syndrome**

Individuals with Down syndrome are characterized by having head, facial and jaw abnormalities, and weak muscle tone which affect their ability to swallow. They are known to experience reduced tongue control and have underdeveloped jaws, which can lead to impaired chewing, and poor ability to use their tongue thrust to assist during swallowing. Early onset of dementia adds to the increased risk for choking in individuals with Down syndrome (20).

### **Prader Willi Syndrome**

Individuals with Prader-Willi syndrome (PWS) are at an increased risk for choking due to poor oral-tongue coordination, poor gag reflex, weak muscle tone in the head and neck, and an abnormally strong cravings and hunger or desire to eat (18). Family caregivers and group home staff should be trained in performing the Heimlich maneuver, have eyes-on and supervised

mealtimes, receive guidance with food preparation and diet modification recommendations via an assessment from an SLP, to avoid high risk choking textures and foods for individuals with PWS (18).

### Certain Medications

There are medications which can affect the individual's ability to swallow. It is important to be aware of medication side effect when administering drugs which may alter an individual ability to swallow. Caregivers should be alert to the increased risk of choking among individuals who are taking the following classes of drugs (26) (9).

These drug classes are:

- Anti-cholinergic.
- Anti-dopaminergic.
- Antiepileptics.
- Antihistamines.
- Antipsychotics.
- Benzodiazepines.
- Narcotics.
- Neuroleptics.
- Skeletal Muscle Relaxants.
- Steroids.



### Feeding or Eating Disorders

Some individuals may have sensory issues relating to food. Avoidant Restrictive Food Intake Disorder (ARFID), pica, and/or rumination disorder (RD) are all characterized by evasive and peculiar eating habits, which can lead to a failure to meet nutritional needs, a significant loss of weight or failure to gain weight, and a dependence on oral nutritional supplements or enteral feeding.

Individuals with ARFID may also restrict or avoid food intake for reasons related to 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 (13) (11).

### Certain Behaviors During Mealtime

Strategies for choking prevention should include caregiver education on eating habits. The individual's PCP should be notified if caregivers observe particular risky choking behavior and a protocol for mealtime observation (at a minimum), should be developed with the help of a nurse, and/or an SLP.

If an individual has experienced a choking incident related to behavior's, a referral should be made to a specialist in behaviors, such as a Board-Certified Behavior Analyst (BCBA). A BCBA is a licensed healthcare professional who studies the behavior of children and adults and is experienced in the execution of plans to improve or change a particular behaviors (14).

Behaviors which increase the risk of choking:

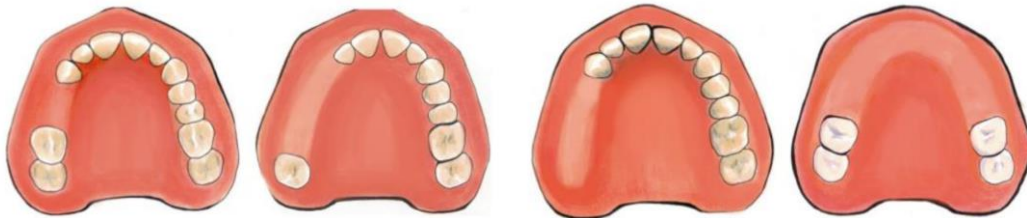
- Placing too much food or medication in one's mouth.
- Not chewing food well enough prior to swallowing.
- Putting large portions of food in one's mouth.
- Eating too fast.
- Drinking too fast.
- Inattention while eating.
- Food stealing - resulting in obtaining non-prescribed/inappropriate diet, etc.
- Swallowing food whole.
- Isolating behaviors (15) (8) (14).



### **Missing Teeth (Poor Dentition), No Teeth (Edentulous), Loose Teeth, or Decaying Teeth**

Loss of teeth reduces the ability to chew food adequately enough to swallow without choking. This can result in a bolus which is too large to safely swallow. Missing, loose, and decaying teeth is one of the leading causes of choking for individuals with IDD (22).

Individuals with missing, loose, or decaying teeth might need to have their diet texture modified. If an individual has several missing teeth, they should be evaluated by their PCP for a referral to an SLP for a modified textured diet (22).



### **Structural Abnormalities**

Cleft lip and/or cleft palate which are types of birth defects impair swallowing ability and increase choking risk. A high, but closed palate, can result in an increased risk for choking when foods get trapped in a high palate when eating then later may fall down into the mouth and throat when the individual reclines. A high arched palate is a symptom of numerous genetic IDD syndromes (5).







Individuals with facial hypotonia and dystonia which are weak jaw and or face muscles are also at increased risk for choking. Facial hypotonia and dystonia can be seen in uneven facial expression and facial drooping. These individuals typically have difficulty holding their mouth closed. They may drool, chew and/or eat with their mouth open, and have protruding tongues (21).

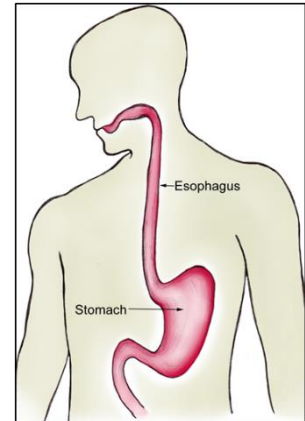




## Choking Risk and Foods

Swallowing moves the food bolus down the esophagus, which is the muscular tube which extends from the throat to the stomach. The size and diameter of the esophagus changes as an individual grows. Certain foods, if swallowed whole, can completely or partially block the esophagus causing an individual to choke, resulting in airway obstruction. This chart shows the diameter of an individual's esophagus at certain ages (29).

Diameter of the Esophagus					
Child		Age 15	Age 18	Adulthood	
17.9mm (0.7 in.)	19.5mm (0.75 in.)	21.21mm (0.835 in.)	24.26mm (0.955 in.)	26.49mm (1.043 in.)	30.61mm (1.205 in.)
					

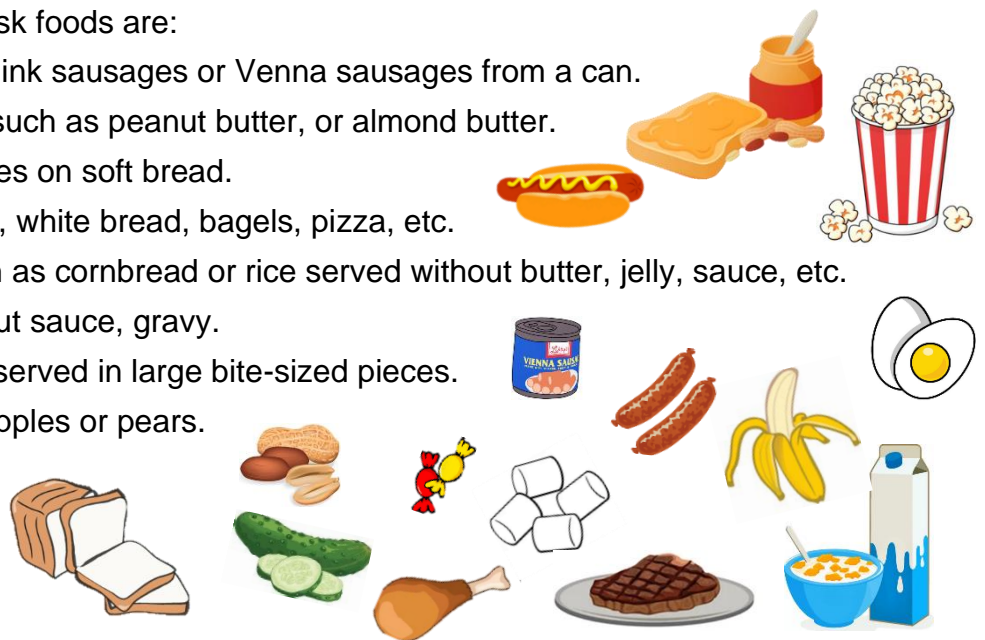


Peanut butter is the most difficult food to chew and swallow requiring more muscle strength and tongue coordination than any other food making it one of the most choked on foods (29) (22).

Foods with mixed textures, such as a bowl of cereal which has both crunchy hard objects and runny thin liquid, increases choking risk. Hard, dry, sticky, stringy and very chewy foods have also been linked to increased choking risk. Individuals with IDD should avoid eating nut butters and other of the foods listed as high risk unless they have been elevated and cleared by an SLP (22).

Some of the highest choking risk foods are:

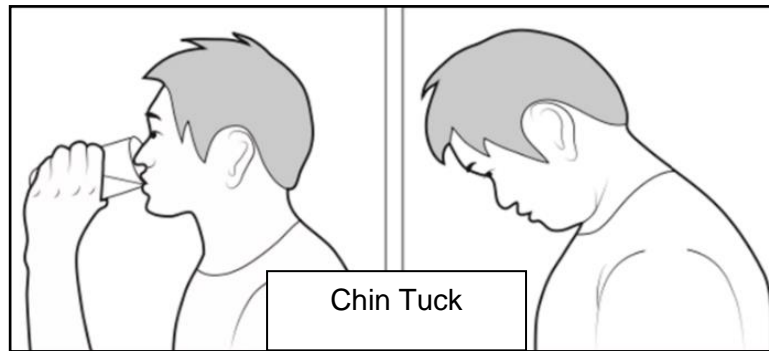
- Hotdogs served whole, link sausages or Vienna sausages from a can.
- Any type of nut butters such as peanut butter, or almond butter.
- Peanut butter sandwiches on soft bread.
- Thick chewy bread, e.g., white bread, bagels, pizza, etc.
- Dry, crumbly foods such as cornbread or rice served without butter, jelly, sauce, etc.
- Dry meats served without sauce, gravy.
- Whole, raw vegetables served in large bite-sized pieces.
- Whole, hard fruits like apples or pears.
- Hard boiled eggs.
- Hard candies.
- Pickles and olives.
- Hard nuts.
- Marshmallows (8) (22).



## Healthcare Professionals

If an individual with IDD has a condition which increases their risk for choking, and or they have experienced a choking episode they need to be seen by their primary care physician (PCP). Caregivers should schedule an appointment with the PCP as soon as possible (22). At the appointment ask for a referral to an SLP or the appropriate specialist and schedule the appointment for the SLP or specialist as soon as possible.

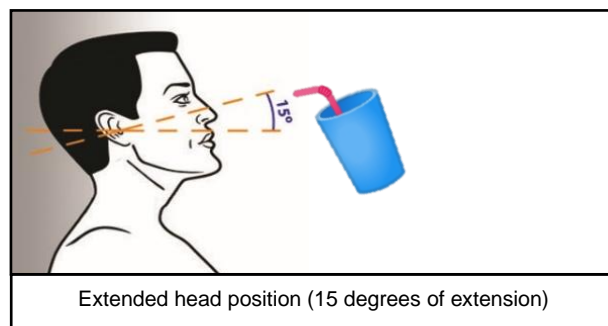
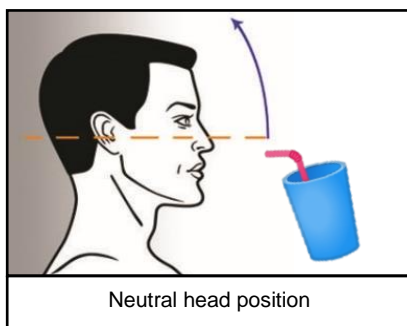
SLPs can perform a swallowing evaluation along with other tests to explore what changes can be made to offer a safer strategy when eating or drinking for individuals. Both an Otolaryngologists, called an Ear, Nose & Throat or ENT and Gastroenterologists can also perform swallowing evaluations.



The SLP may suggest modified texture diet, head and neck posture changes during mealtime, or behavioral tactics, such as “chin tuck,” or a neutral head position.

This is a positioning strategy which requires an individual to tuck their chin, so food and other substances do not enter the airway when swallowing (2).

Caregivers should remember 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.





## Caregiver Tips

**Everyone** is at risk for choking.

Some people who choke cannot breathe. The symptoms of a complete airway blockage are:

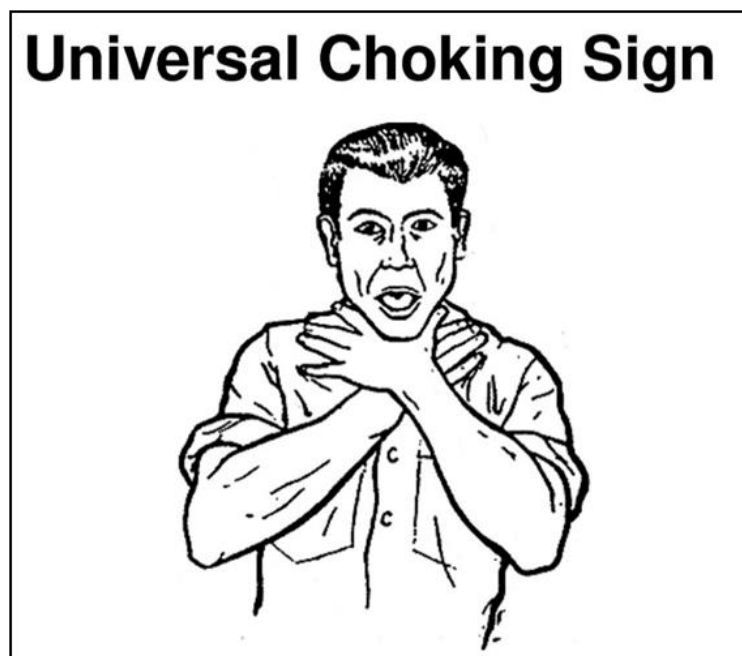
- They cannot speak.
- They have a grayish face or pale face.
- Their lips become bluish.
- They might be grabbing at their throat.
- They may be making a high-pitched noise or no noise.

Some people who choke can still breathe. Symptoms of a partial airway blockage are:

- A look of fear or panic on their face.
- A reddish face.
- Grabbing at their throat.
- Drooling.
- Forceful coughing to attempt to clear their airway (10) (22).

## The Universal Choking Sign

The universal sign for choking is both hands clutched to the throat. Demonstrate the Universal Choking Sign for individuals with IDD and teach them to the best of their ability (who are cognitively and physically able) how to do the universal sign for choking themselves. Have them demonstrate it back at routine intervals to make sure they remember how to do it, and when they should use it (i.e., when they are choking) (19).



## Protocols for Lowering the Risk of Choking (not all inclusive)

The individual's PCP, a nurse, a dietician and/or a nutritionist can help develop a well-thought-out protocol for mealtime 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.)*

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. Staff should be training and familiar with the individual's person-centered care guidelines and or protocols to help keep the individual safe.

All person-centered support plans and or protocols must meet human rights guidelines and requires approval with signature from a healthcare professional.

Some person-centered protocols might include:

- Protocols for implementing physician orders for prescribed modified diets.
- Protocols limiting access to food impact an individual's human rights which requires approval from the local human rights counsel (LHRC) prior to implementation.
- Protocols for hands-on, staff-assisted eating.
- Protocols for intake/output.
- Protocols for tooth brushing instructions (from a dental provider), to avoid gagging.
- Protocols for food preparation (separating food into smaller portions, etc.).
- Protocols for Pica precautions.
- Protocols based on a history of the individual's previous choking incidents or difficulty swallowing.
- Protocols for assisted eating or drinking techniques, using adaptive equipment.
- Positioning protocols, during and after mealtime.

### What Not to Do

- DO NOT give foods or liquids that a particular individual has difficulty swallowing.
- DO NOT give foods or liquids restricted by an individual's health care provider.
- DO NOT rush mealtimes.
- DO NOT start mealtime if the individual is too lethargic, angry, anxious, or if they cannot sit still.
- DO NOT plan other activities during mealtimes.
- DO NOT permit eating or drinking while the individual is lying down.
- DO NOT assist individuals to bed, for at least 30 minutes after eating or drinking.
- DO NOT let an individual finish eating a particular food item if that food item has just caused the individual to choke.

## Choking Risk Assessment Screening Tool

The Choking Risk Assessment (CRA) Screening Tool (below) is a risk assessment tool designed specifically for adults with intellectual and developmental disability (27). The CRA is meant to be a screening tool to help unlicensed caregivers identify problems individuals may have with eating or drinking, so they can then be assessed by a healthcare professional.

The CRA is not meant to take the place of a formal assessment by a healthcare professional.

Appendix A		
<b>CHOKING RISK ASSESSMENT (CRA)</b>		
<b>Justine Joan Sheppard, Ph.D.</b>		
DATE: _____		
NAME: _____	ID # _____	RISK SCORE: _____
RECENT HISTORY OF CHOKING IN THE PAST YR. OR OTHER RELEVANT HISTORY		ESTIMATED RISK
		Low risk <input type="checkbox"/>
		High risk <input type="checkbox"/>
Instructions: Score each item 10% for any one or more abnormal features. See User's Guide on back of form.		
1) _____	Age of 40 or older	
2) _____	Dysphagia Diagnosis (DMSS)	
	None Mild Moderate Severe Profound	
3) _____	History of Choking	
	Level 5: Hospitalization for pulmonary consequences	
	Level 4: Acute Care for respiratory consequences	
	Level 3: Procedure to clear-suction, Heimlich, finger sweep	
	Level 2: Cleared without assistance (prolonged coughing)	
	Level 1: Coughing during meals, snacks, or on saliva	
4) _____	Medications with Side Effects for Swallowing	
	Name of Meds: _____	
5) _____	Descriptive Mealtime Actions	
	Labile (laughing/talking)	
	Food – stealing	
	Mania	
6) _____	Descriptive Mealtime Behaviors	
	Distractible	
	Lethargic	
7) _____	Reduced Chewing Ability and on Chewable Foods	
8) _____	Rate	
	Rapid spooning	
	Rapid drinking	
9) _____	Excessive Size Mouthfuls (Stuffing; Cramming)	
	Solids	
	Liquids	
10) _____	Other problems	
	Posture (Maintaining upright sitting posture during eating)	
	PICA diagnosis	
	Rapid breathing during eating	
	Recurring seizures	
©2005 Justine Joan Sheppard Forms may be duplicated for clinical and research uses		

**CHOKING RISK ASSESSMENT (CRA)**  
**USER'S GUIDE**  
Justine Joan Sheppard, Ph.D.

**IDENTIFYING INFORMATION:**

Fill in Date, Name and ID.  
Note any relevant history.

**ITEMS and How To Score them:**

Score 10% for each item that applies to the individual (maximum score 100%). A final score of more than 20% indicates "high risk". A final score of 20% or below indicates "low risk". Higher cutoffs represent higher levels of risk tolerance.

1. Age. Score as positive (i.e., 10%) if individual is or will be 40 years old in the current calendar year.
2. Dysphagia diagnosis. Score as positive if a dysphagia diagnosis for any one or more phases of swallowing has been made with clinical or instrumental assessments. Note Dysphagia Management Staging Scale (DMSS) level if available.
3. History of choking. Score as positive if level 3, 4 or 5 choking, as described in this item, has occurred at any time in the past five years. Score as positive if level 2 has been observed to occur one or more times weekly in the past month. Score as positive if level 1 has been observed to occur usually at least once at each meal on liquid or solids.
4. Medications. Score as positive if the individual is currently prescribed any drugs that affect alertness, muscle tone, or salivation or are associated with a side effect of Tardive Dyskinesia Syndrome. These include neuroleptics, seizure medications, tranquilizers (sedatives), muscle relaxants, anticholinergics and antihistamines.
5. Descriptive mealtime actions. Score as positive if individual laughs or talks without adequate self-control or confiscates food that may be other than their prescribed diet consistency during meals one or more times weekly, or has cycles of mania one or more times annually.
6. Descriptive mealtime behaviors/focus. Score as positive if individual exhibits sleepiness, i.e., lethargy during eating, and/or other difficulty maintaining focus on eating, i.e., distractibility, one or more times weekly.
7. Reduced chewing ability. Score as positive if individual is judged to be inconsistent in chewing ability or to have reduced chewing ability and the individual's diet includes foods that require chewing.
8. Rate. Score as positive if the individual exhibits excessively rapid spooning or drinking one or more times at each meal.
9. Excessive size mouthfuls. Score as positive if the individual takes excessively large mouthfuls of solid or liquid food one or more times at each meal.
10. Other. Score as positive if the individual has exhibited difficulties with one or more of the listed items in the past year.

## Caregiver Response to Choking

Caregivers should learn the Heimlich maneuver and CPR in a certified first-aid training course and practice putting both interventions into action during your emergency preparedness training drills.

The use of caregiver drills or mock emergencies in order to reinforce automatic emergency response for choking is a good idea. Practicing emergency responses and allowing direct caregivers to have a chance to ask questions, can build confidence and improve response techniques.

Repetition of any activity increases memory of any skill and gives participants a chance to build their skills. It is also important to keep skill requirements current with refresher courses (24).

**The following section does NOT replace CPR / First Aid training  
but is only intended as a review.**

## Emergency Response to Choking (19)

### Generic Protocol for Choking (for reference only\*)

1. Immediately call 911. If another person is present, instruct them to call 911.
2. If trained, immediately provide repeated abdominal thrusts, known to some as the Heimlich maneuver, until the object causing the choking is dislodged and the individual can cough forcefully, speak, or breathe, or until the individual becomes unconscious.
3. If the individual is unconscious, remove any visible obstructions from the mouth and begin administering CPR. Check periodically to see if the obstruction becomes dislodged.

*\*Remember to follow agency training for responding to a choking emergency. These instructions are not meant to take the place of in-person training instructions.\**

## A Step-By-Step Guide Explaining What to Do In a Choking Emergency\*

If an individual does not give the universal choking signal, look for the following signs and symptoms, which may indicate they are choking:

- An inability to speak.
- Difficulty breathing or noisy breathing.
- Squeaky sounds when trying to breathe.
- Coughing, which may either be weak or forceful.
- Skin, lips, and nails turning blue or dusky.
- Skin that is flushed then turns pale or bluish in color.
- A panicked look on their face.
- Loss of consciousness.
- If the person is able to cough forcefully, the person should keep coughing.



- If the person is choking and can't talk, cry, or laugh forcefully, the American Red Cross recommends a "five-and-five" approach to delivering first aid:
- Give five back blows. Stand to the side and just behind a choking adult. For a child, kneel down behind. Place one arm across the person's chest for support. Bend the person over at the waist so that the upper body is parallel with the ground. Deliver five separate back blows between the person's shoulder blades with the heel of your hand.
- Give five abdominal thrusts. Perform five abdominal thrusts.
- Alternate between five blows and five thrusts until the blockage is dislodged.

*\*Remember to follow agency training for responding to a choking emergency. These instructions are not meant to take the place of in-person training instructions.\**

The American Heart Association does not teach the back blow technique, only the abdominal thrust procedures. It is okay not to use back blows if you have not learned the technique. Both approaches are acceptable.

### To Perform Abdominal Thrusts on Someone Else\*

- Stand behind the person. Place one foot slightly in front of the other for balance. Wrap your arms around the waist. Tip the person forward slightly. If a child is choking, kneel down behind the child.
- Make a fist with one hand. Position it slightly above the person's navel.
- Grasp the fist with the other hand. Press hard into the abdomen with a quick, upward thrust — as if trying to lift the person up.
- Perform between six to ten abdominal thrusts, until the blockage is dislodged.

If you are the only rescuer, perform back blows and abdominal thrusts before calling 911 or your local emergency number for help. If another person is available, have that person call for help while you perform first aid.

If the person becomes unconscious, perform standard cardiopulmonary resuscitation (CPR) with chest compressions and rescue breaths.



*\*Remember to follow agency training for responding to a choking emergency. These instructions are not meant to take the place of in-person training instructions.\**

## To Perform Abdominal Thrusts on yourself\*

First, if you are alone and choking, call 911 or your local emergency number immediately. Then, although you will be unable to effectively deliver back blows to yourself, you can still perform abdominal thrusts to dislodge the item.

- Place a fist slightly above your navel.
- Grasp your fist with the other hand and bend over a hard surface — a countertop or chair will do.
- Shove your fist inward and upward.

*\*Please, remember to follow your agency's training for responding to a choking victim. These instructions are not meant to take the place of in-person training.*



## To Aid Someone Choking in a Wheelchair (1).

- Encourage the person to cough if they can't cough then start assistance immediately.
- Lock the brakes on the wheelchair with the brake handle.
- Call for assistance from other staff members if available. If you are the only rescuer, perform back blows and abdominal thrusts before calling 911 or your local emergency number for help. *If another person is available, have that person call for help while you perform the steps below.*
- Lean the choking wheelchair user forward and slap their back 5 times between their shoulder blades.
- If they are still choking, stand directly behind them and lean down and wrap your arms around their waist.
- Make a fist and put it above their belly button.
- Place your other hand on top of your fist. Pull in and up. This is called an abdominal thrust. Repeat up to 5 times.
- If they are still choking alternate 5 back blows with 5 abdominal thrusts, checking after each action to see if obstruction has been removed.
- Stand directly behind the individual and wrap your arms around their ribcage, forming a fist with your hands. Grasp the fist with the other hand.
- Press hard into the abdomen with a quick, upward thrusts — as if trying to lift the person up, pulling the individual's body in towards you and up 5 times.



*If another person is available, have that person call for help while you perform the steps above.*

If the person becomes unconscious, pull them to the floor and place them on their backs and begin performing standard cardiopulmonary resuscitation (CPR) with chest compressions and rescue breaths.

*\*Remember to follow agency training for responding to a choking emergency. These instructions are not meant to take the place of in-person training instructions.\**

Video: *How to Deal with a Choking Wheelchair User.* <https://www.youtube.com/watch?v=1L1dR9qUN0E>

## To Clear the Airway of an Unconscious Person\*

- Lower the person on his or her back onto the floor, arms to the side.
- Clear the airway. If a blockage is visible at the back of the throat or high in the throat, reach a finger into the mouth and sweep out the cause of the blockage. Do not try a finger sweep if you cannot see the object. Be careful not to push the food or object deeper into the airway, which can happen easily in young children.
- Begin CPR if the object remains lodged and the person does not respond after you take the above measures. The chest compressions used in CPR may dislodge the object. Remember to recheck the mouth periodically.

*\*Remember to follow agency training for responding to a choking emergency. These instructions are not meant to take the place of in-person training instructions.\**

### CONSCIOUS CHOKING

Cannot Cough, Speak, Cry or Breathe

After checking the scene for safety and the injured or ill person, have someone CALL 9-1-1 and get consent. For children and infants, get consent from the parent or guardian, if present.

#### 1 GIVE 5 BACK BLOWS

■ Adult:



■ Child:



■ Infant:



#### 2 GIVE 5 ABDOMINAL THRUSTS

■ Adult:



■ Child:



■ Infant: (chest thrusts for infant)



TIP: For infants, support the head and neck securely. Keep the head lower than the chest.

#### 3 REPEAT STEPS 1 AND 2 UNTIL THE:

- Object is forced out.
- Person can cough forcefully or breathe.
- Person becomes unconscious.

#### WHAT TO DO NEXT

- IF PERSON BECOMES UNCONSCIOUS — Carefully lower the person to the ground and give CARE for unconscious choking, beginning with looking for an object.
- Make sure 9-1-1 has been called.



Copyright © 2011 by The American National Red Cross

March 2023  
RL 9.9

16

## Resources

- American Red Cross (2011). First aid conscious choking poster.  
<file:///C:/Users/dha92624/Downloads/first-aid-consciouschokingposter-en.pdf>
- American Red Cross (n.d.). How do you care for a conscious choking victim?  
<https://www.youtube.com/watch?v=UVNxP7K2ATE>
- American College of Emergency Physicians. Choking (Heimlich maneuver).  
<https://www.emergencyphysicians.org/article/know-when-to-go/choking--heimlich-manuever>
- American Red Cross (2010). CPR/AED for professional rescuers and health care providers.  
[https://www.redcross.org/content/dam/redcross/atg/PHSS\\_UX\\_Content/CPRO\\_Handbook.pdf](https://www.redcross.org/content/dam/redcross/atg/PHSS_UX_Content/CPRO_Handbook.pdf)
- Resuscitate! CPR AED & Choking App Stone Meadow Development LLC  
<https://apps.apple.com/us/app/resuscitate-cpr-aed-choking/id363393502>
- National Safety Council's Emergency Response App It provides a list of abbreviations and memory aids, as well as an illustrated summary of treatment steps for various illnesses and injuries.  
[https://play.google.com/store/apps/details?id=com.nsc.hybrid&hl=en\\_US](https://play.google.com/store/apps/details?id=com.nsc.hybrid&hl=en_US)
- If you have any questions about the information contained in this Health & Safety Alert, please email your question to the Office of Integrated Health's nursing team at:  
[communitynursing@dbhds.virginia.gov](mailto:communitynursing@dbhds.virginia.gov)
- What to do when a Wheelchair User is choking: <https://www.aid-training.co.uk/news/what-to-do-when-a-wheelchair-user-is-choking>
- The ARC handout on Choking an Obesity, Choking in a Wheelchair:  
<https://hrstonline.com/demo/elearning/live/choking/choking-part-2/Choking%20with%20Morbid%20Obesity%20Protocol.pdf>
- How to deal with a choking wheelchair user YouTube video:  
<https://www.youtube.com/watch?v=1L1dR9qUN0E>

## References

1. [A.I.D Training & Operations Ltd \(2015\). What to do when a wheelchair user is choking.](#)
2. [Alghadir, A. H., Zafar, H., Al-Eisa, E. S., & Iqbal, Z. A. \(2017, March\). Effect of posture on swallowing. National Library of Medicine \(NIH\), 17\(1\): 133–137.](#)
3. [Al-Khaled, M., Matthis, C., Binder, A., Mudter, J., Schattschneider, J., Pulkowski, U., ... & QugSS II Group. \(2016\). Dysphagia in patients with acute ischemic stroke: early dysphagia screening may reduce stroke-related pneumonia and improve stroke outcomes. Cerebrovascular Diseases, 42\(1-2\), 81-89.](#)
4. [American College of Emergency Physicians \(n.d.\). Choking \(Heimlich maneuver\). https://www.emergencyphysicians.org/article/know-when-to-go/choking--heimlich-manuever](#)
5. [American Speech-Language-Hearing Association \(ASHA\) \(n.d.\). Cleft Lip and Palate \(Practice Portal\).](#)
6. [American Red Cross \(2010\). CPR/AED for professional rescuers and health care providers. https://www.redcross.org/content/dam/redcross/atg/PHSS\\_UX\\_Content/CPRO\\_Handbook.pdf](#)



7. American Red Cross (2011). Adult first aid/CPR/AED: Ready reference. Retrieved from [https://www.redcross.org/content/dam/redcross/atq/PDF\\_s/Health\\_Safety\\_Services/Training/Adult\\_ready\\_reference.pdf](https://www.redcross.org/content/dam/redcross/atq/PDF_s/Health_Safety_Services/Training/Adult_ready_reference.pdf)
8. Archambault, N. and Paskay, L. C. (2019, November). Unsafe chewing: Choking and other risks. *American Speech-Language-Hearing Association (ASHA)*, 42-49.
9. Balzer, K. M. (2000). Drug-induced dysphagia. *International Journal of MS Care*, 2(1), 40-50.
10. Borke, J. and Zieve, D. (2021, February). Choking - unconscious adult or child over 1 year. *Medline Plus, National Institute of Health, National Library of Medicine*.
11. Bryant-Waugh, R., Micali, N., Cooke, L., Lawson, E. A., Eddy, K. T., & Thomas, J. J. (2019). Development of the Pica, ARFID, and Rumination Disorder Interview, a multi-informant, semi-structured interview of feeding disorders across the lifespan: A pilot study for ages 10-22. *The International journal of eating disorders*, 52(4), 378–387.
12. Cleveland Clinic. (2020, March). Dysphagia (Difficulty Swallowing). *Cleveland Clinic Medical Professionals*.
13. Dahlgren, C. L., Wisting, L., & Rø, Ø. (2017). Feeding and eating disorders in the DSM-5 era: a systematic review of prevalence rates in non-clinical male and female samples. *Journal of eating disorders*, 5, 56.
14. Hemsley, B., Steel, J., Sheppard, J.J., Malandraki, G.A., Bryant, L., and Balandin, S. (2019, August). Dying for a meal: An integrative review of characteristics of choking incidents and recommendations to prevent fatal and nonfatal choking across populations. *American Journal of Speech-Language Pathology*, 28, 1283–1297.
15. Lu, Q. F., Ma, Q., Rithwan, S. M. S., Ng, H. C., Lee, S. L., Lee, K. M., ... & Xie, H. (2017). Risk factors and nursing strategies to manage choking in adults with mental illness: a systematic review protocol. *JBIR Database of Systematic Reviews and Implementation Reports*, 15(8), 1998-2003. [https://journals.lww.com/jbisrir/Fulltext/2017/08000/Risk\\_factors\\_and\\_nursing\\_strategies\\_to\\_manage.5.aspx](https://journals.lww.com/jbisrir/Fulltext/2017/08000/Risk_factors_and_nursing_strategies_to_manage.5.aspx)
16. Manduchi, B., Walshe, M., Burke, E., Carroll, R., McCallion, P., & McCarron, M. (2021). Prevalence and risk factors of choking in older adults with intellectual disability: Results from a national cross-sectional study. *Journal Of Intellectual & Developmental Disability*, 46(2), 126–137.
17. Mayo Clinic (2022, October). Choking: First aid. *Mayo Foundation for Medical Education and Research (MFMER)*, 1-3.
18. Mayo Clinic (2018, January). Prader-Willi syndrome. *Mayo Foundation for Medical Education and Research (MFMER)*, 1-7.
19. Mayo Clinic (2017). Choking: First aid.
20. Meyer, C., Theodoros, D., & Hickson, L. (2017). Management of swallowing and communication difficulties in Down syndrome: A survey of speech-language pathologists. *International Journal of Speech-Language Pathology*, 19, 87–98. Doi: 10.1080/17549507.2016.1221454.
21. Michael, A. P. (n.d.). Dystonia. *American Association of Neurosurgeons (AANS)*, 1-7.
22. Munoz-Núñez, M., Laguna, L. & T´arrega, A. (2023, January). What is the food like that people choke on? A study on food bolus physical properties under different in vitro oral capacities. *Food Research International*, 165(112474), 1-10.
23. Panara, K., Ahangar, E. R., & Padalia, D. (2022, July). Physiology, swallowing. *StatPearls*, 1-7.
24. Popov, V., & Reder, L. M. (2017). Repetition improves memory by strengthening existing traces: Evidence from paired-associate learning under midazolam. *National Institute of Mental Health*.
25. Reber, E., Gomes, F., Dähn, I. A., Vasiloglou, M. F., & Stanga, Z. (2019, September). Management of dehydration in patients suffering swallowing difficulties. *Journal of Clinical Medicine*, 8(1923), 1-19. doi:10.3390/jcm8111923.
26. Robertson, J., Chadwick, D., Baines, S., Emerson, E., and Hatton, C. (2017, December). Prevalence of dysphagia in people with intellectual disability: A systematic review. *American Association on Intellectual and Developmental Disabilities (AAIDD)*, 55(6), 377–391 DOI: 10.1352/1934-9556-55.6.377
27. Sheppard, J.J., Malandraki, G.A., Paula Pifer, P., Cuff, J., Troche, M., Hemsley, B., Balandin, S., Mishra, A., & Hochman, R. (2017, July). Validation of the choking risk assessment and pneumonia risk assessment for adults with intellectual and developmental disability (IDD). *Science Direct*, 69, 61-76.
28. van Hulst, K. (2023, March). Oral motor performance in children with neurodevelopmental disabilities- about dysphagia and drooling. *Radboud Repository of the Radboud University Nijmegen*, 1-219.
29. Viswanatha, B. & Gest, T. R. (2015, July). Esophagus Anatomy. *Medscape*, 1-6.
30. Weiss, K. and Lachlan, K., (2020, September). CHD4 Neurodevelopmental Disorder. *U.S. National Library of Medicine (NIH)*.