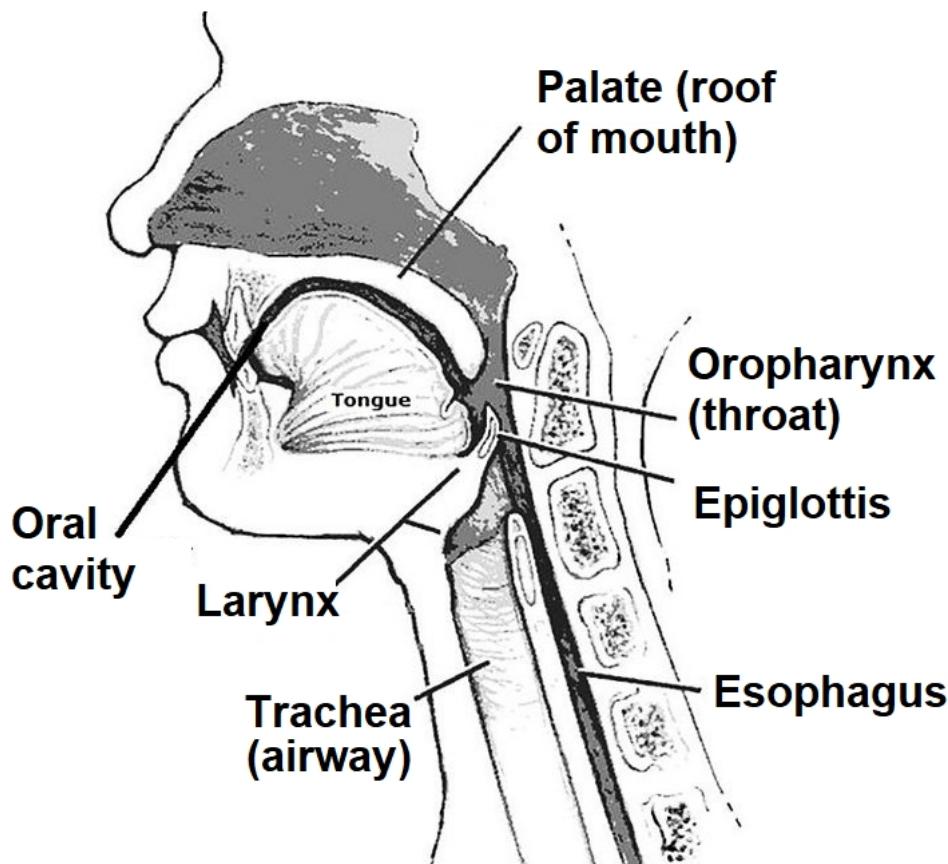


Swallow recommendations for patient: _____



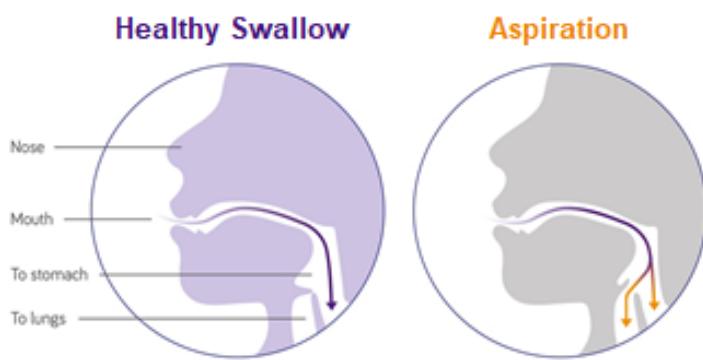
Dysphagia: Difficulty with any phase of the swallow, including the oral manipulation and/or pharyngeal swallow of food and/or liquids and/or medications.

Symptoms:

- Aspiration (material entering trachea/airway)
- Coughing during/after swallowing
- Having a gurgly or weak voice after swallowing
- Choking on food/drink
- Coughing or vomiting up food
- Difficulty chewing
- Difficulty initiating the swallow
- Trouble moving food to the back of your mouth
- Food left in the mouth or throat after swallowing
- Food sticking in the throat
- Taking a long time to eat or drink
- Unintended weight loss or dehydration
- Frequent chest infections

Some causes of dysphagia:

- Stroke
- Injury to head or spine
- Acid reflux
- Intubation
- Generalized weakness
- Neurological conditions
- Dementia
- Head/neck cancer
- Pharyngeal pouches or protrusions



Food consistency recommendations:

- Regular textured foods. Eat anything you normally eat.
- You should gravitate to foods that are soft, smooth, and/or moist. These are things that will be easiest and safest to swallow.
Moist: Add sauce/gravy/salsa/etc to moisten foods. Or dip it in liquid such as soup.
Soft: Keep things soft such that it is mashable with a fork. For example, have vegetables steamed instead of pan fried.
Smooth: Think of a more even consistency, for example cut into smaller pieces, or blended/pureed.
Avoid foods that are hard, dry, and/or fibrous. This includes things like salads, celery, nuts, chips, dry rice, dry meats, steaks, hash browns, crispy toast, crispy bacon etc.
- Pureed foods. You should only eat foods that are very soft, smooth, uniform consistency, and does not require any chewing. Examples include yogurt, applesauce, pudding, ripe bananas, ripe avocados, anything blended.
- NPO: Nothing by mouth. Nutrition via feeding tube only.
(NPO comes from the latin phrase *nil per os*.)

Liquid consistency recommendations:

- Regular (also known as thin, or unthickened) liquids.
- Thickened liquids. This is to help slow the rate of flow, as well as increase cohesion, to assist in safe swallow and avoid aspiration. There are many options for this, including pre-thickened drinks, or starch powders which thicken the liquid when stirred and left to sit for about 30 seconds. Brand examples include Thick It, Simply Thick, DysphagiAide, Active, and many others. These can be found on Amazon, Wallgreens, Rite-aid, and CVS. Follow directions on the box for the correct level of thickness.
 - Half-nectar thick liquids (half the thickness amount of nectar thick)
 - Nectar thick liquids AKA mildly thickened liquids.
 - Honey thick liquids AKA moderately thickened liquids.
 - Pudding thick liquids AKA extremely thickened liquids.

Mildly Thick fluids (Nectar)

- Fluid runs freely off the spoon but leaves a thin coating on the spoon.
- Fluids pour like most types of fruit nectar.



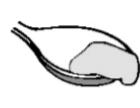
Moderately Thick fluids (Honey)

- Fluid slowly drips in dollops off the end of the spoon.
- Fluids pour slowly, like liquid honey.



Extremely Thick fluids (Pudding)

- Fluid sits on the spoon and does not flow off.
- Fluids are as thick as pudding.



- Hydration is very important; older adults are recommended to consume at least 1.5 - 2 liters of fluid per 24 hours. This corresponds to 6-8 cups per day.

Frazier Free Water Protocol:

In this case, the benefits of hydration supersede the risk of clean water causing aspiration and infection to the lungs. To ensure adequate hydration, you can have regular, thin (e.g. unthickened) WATER (not other beverages) after oral care/hygiene (teeth brushed/flossed, gums/tongue cleaned). This should be done outside of mealtime/snacktime because your mouth can't be clean when it's in the middle of eating. If you have a clean mouth, and you are awake/alert, and sitting upright, you can drink thin water.

More information on this can be found here:

<https://www.uoflhealthnetwork.org/frazier-water-protocol>

- NPO: Nothing by mouth. Hydration via feeding tube only.

Medication/pills consistency recommendations:

- Regular sized pills in regular liquid
- Regular sized pills in a thicker substance (apple sauce, yogurt, pudding, appropriately thickened liquids, etc).
- Pills should be cut up into small pieces, crushed, or liquidized. Coordinate with your doctor/pharmacist about which pills can be modified in this way, and discuss alternatives if need be.
- Pills should be cut up into small pieces, crushed, or liquidized. Coordinate with your doctor/pharmacist about which pills can be modified in this way, and discuss alternatives if need be. Have this in a thicker substance (apple sauce, yogurt, pudding, appropriately thickened liquids, etc).
- NPO: Nothing by mouth. Medication via feeding tube only.



Safe swallow precautions:

- When having oral intake (food, drink, meds), sit up nice and tall. Make sure your torso is as upright as is possible/comfortable, and about 20 minutes afterward as well.
- Make you are awake and alert for all oral intake.
- Take your time when eating and drinking. Never be in a rush for this.
- Have small-medium sized bites and sips. Avoid large bites and large gulps.
- One bite at a time, one sip at a time. Avoid consecutive bites/sips, and avoid “chugging” your liquids.
- Chew very thoroughly.
- Alternate bites and sips. After every few bites, take a sip of your drink. After you are done eating, drink some liquids to get it all down.
- Avoid talking/laughing while eating/drink. “Multitasking” in this way increases the risk of aspiration and choking.
- Check your mouth after you finish your meal/snack. You can do this by opening your mouth in front of a mirror. Alternatively, a caregiver can use a flashlight to inspect your mouth for you. Make sure it is empty, no pieces of food anywhere.
- Watch for signs/symptoms of aspiration. The most common sign is coughing after swallowing. If this happens, pause your oral intake until the coughs clear completely. These coughs often happen in sets of 2 or more.
Another common symptom of aspiration is a gurgly voice after swallowing. This indicates that there is material sitting on the vocal folds in the airway. If this happens, swallow hard and clear your throat. Do this a few times, if necessary, until your voice is clear again.
- If aspiration signs happen more often than they currently do, then please inform me and the physician.
- Caregiver supervision is recommended for all oral intake.
- Be aware of choking first aid as described in the back of this packet.

Compensatory swallow maneuvers: All of these are good strategies to protect the airway while eating/drinking, however they each have pros/cons, and each patient/situation is different. Try these out while you are actively swallowing something (foods/drinks/meds as applicable) and see if one or a combination of these is helpful for you. Ideally, you should be doing at least one of these maneuvers every time you swallow during oral intake.

Breath hold: Just before swallowing something, consciously hold your breath. This helps to provide improved airway protection during the swallow.

After swallowing, gently clear your throat (a small cough).

Swallow effortfully. Swallow extra hard when you swallow something. During this, you should tighten your neck muscles extra hard. This helps direct the flow of intake safely into the esophagus and provides extra airway protection. This also has long-term benefits, as this effortful squeezing strengthens the swallow system over time (that's why it's also listed under swallow exercises).

Double swallow: Every time you swallow something, swallow it down twice instead of one time. This helps to clear any remaining residue in your mouth or throat which may have otherwise caused aspiration.

Favor your strong side: If you have weakness or an obstruction on just one side of your throat (one-sided weakness is common after a stroke), then lean, turn, or tilt your head toward your strong side during the swallow. This helps to utilize your stronger side until the other side is rehabilitated.

For you, your strong side is your left / right side (circle one).

Chin tuck: Only perform this maneuver if you have been recommended to do so after swallow imaging. With this method, tuck your chin down toward your chest and then swallow your food/drink. This also helps direct the flow of intake safely into the esophagus while protecting the airway.

None at this time

Swallow strengthening exercises: These are done outside of mealtime. Perform these exercises at least once per day to facilitate a strong, healthy swallow. 2-3x per day for best results. The numbers below are approximate and should change over time as you become stronger. Perform as many as you feel comfortable pushing yourself to do. Try to not do these exercises right before oral intake, so as to not eat/drink with a tired tongue/throat.

- Effortful swallow: Take a small sip of your drink, or you can just use your saliva. Swallow down very hard, as though you were swallowing a very big pill. You should feel your neck muscles flex for this. (Yes, this is both a maneuver and an exercise!) Do this about ____ times.
- Laryngeal elevation: Make a high pitched EEE sound. This targets the raising motion your larynx performs during the swallow. This raising motion is important for moving other structures in their necessary place for the swallow.
Do this about ____ times.
- Mendelssohn: Start to swallow normally. When your Adam's apple (larynx) is at its highest point, squeeze your throat muscles to hold it in that position for 3 counts, and then relax. You can use your hand on your neck to feel your Adam's apple at its highest point. This targets the muscles involved in laryngeal elevation and airway protection.
Do this about ____ times.
- Lingual retraction: Move your tongue far back inside your mouth, holding it there a few moments. This helps to strengthen the base of the tongue, which moves pushes your food/drink down and in the correct position.
Do this about ____ times.
- Masako: Gently bite the tip of your tongue. If this is difficult, press your tongue up toward your top teeth/gums. While holding your tongue there, swallow. This provides increased resistance and thereby strengthens the swallow musculature.
Do this about ____ times.
- Chin press against resistance: While you are laying down flat on your back, lift your chin up and toward your chest. OR while sitting in a chair, place a rolled-up towel or a pillow under your chin, and press your chin down against it. This also helps to strengthen the muscles involved in the swallow. Then hold the chin press position for ____ seconds.
Do this about ____ times.
- None at this time

Oral care and cleanliness:

Oral care and cleanliness are very important for people with dysphagia. This is because any bacterial buildup in the mouth, if inhaled/aspirated into the airway, can cause infection in the lungs (aspiration pneumonia). In effort to avoid this, continue to make your mouth and teeth are getting cleaned thoroughly multiple times per day, and especially before oral intake. Have your teeth brushed/flossed and gums/tongue cleaned thoroughly as well.

Reference this chart regarding aspiration pneumonia risk:

Pneumonia “Risk” Predictor						
	Oral Health Status	Laryngeal Valve Integrity*		Immune System Status#		Predicted Outcome*#
1	Good	+ No Aspiration	+	Normal	=	No Pneumonia
2	Poor	+ No Aspiration	+	Normal	=	No Pneumonia
3	Poor	+ Aspiration	+	Normal	=	No Pneumonia
4	Good	+ Aspiration	+	Normal	=	No Pneumonia
5	Good	+ No Aspiration	+	Reduced	=	No Pneumonia
6	Poor	+ No Aspiration	+	Reduced	=	No Pneumonia
7	Good	+ Aspiration	+	Reduced	=	Low Risk of Pneumonia
8	Poor	+ Aspiration	+	Reduced	=	High Risk of Pneumonia

Source: <https://www.sasspllc.com/three-pillars-pneumonia/>.

You'll notice that oral health status (oral cleanliness) and laryngeal valve integrity (facilitated by safe swallow precautions, swallow strengthening exercises and/or compensatory swallow maneuvers) are crucial in preventing aspiration and aspiration pneumonia.

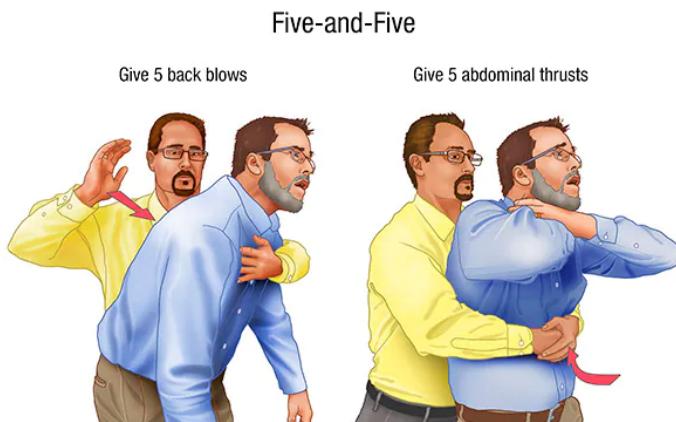
Choking first aid

Choking occurs when a foreign object lodges in the throat or windpipe, blocking the flow of air. In adults, a piece of food often is the culprit. Young children often swallow small objects. Because choking cuts off oxygen to the brain, give first aid as quickly as possible.

The universal sign for choking is hands clutched to the throat. If the person doesn't give the signal, look for these indications:

- Inability to talk
- Difficulty breathing or noisy breathing
- Squeaky sounds when trying to breathe
- Cough, 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
- 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 5 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 5 abdominal thrusts. Perform five abdominal thrusts (also known as the Heimlich maneuver).

- **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.
- **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.

Alternate between 5 blows and 5 thrusts until the blockage is dislodged.

If you're 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.

To perform abdominal thrusts (Heimlich maneuver) on yourself:

First, if you're alone and choking, call 911 or your local emergency number immediately. Then, although you'll 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 counter-top or chair will do.
- **Shove your fist** inward and upward.



To clear the airway of a pregnant woman or obese person:

- **Position your hands a little bit higher** than with a normal Heimlich maneuver, at the base of the breastbone, just above the joining of the lowest ribs.
- **Proceed as with the Heimlich maneuver**, pressing hard into the chest, with a quick thrust.
- **Repeat** until the food or other blockage is dislodged. If the person becomes unconscious, follow the next steps.

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. Don't try a finger sweep if you can't 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 doesn't respond after you take the above measures. The chest compressions used in CPR may dislodge the object. Remember to recheck the mouth periodically.

