

Swallowing

- **Dysphagia (dis-FAY-juh)** is the medical term for swallowing disorder.
- Dysphagia can occur during 3 different stages of the swallowing process.

Swallow Stages:

Oral Phase	Sucking, chewing, and moving food or liquid to the throat
Pharyngeal Phase	Beginning of the swallow reflex, squeezing food down the throat and closing the airway to prevent food and liquid from entering the airway (aspiration) or prevent choking
Esophageal Phase	Relaxing and tightening the muscles of the esophagus by squeezing food through the esophagus into the stomach

(American Speech-Language-Hearing Association (ASHA), 2014)

Common Symptoms of Swallowing Disorders:

- Coughing or throat clearing during or right after eating or drinking
- “Wet” or “gurgly” sounding voice during or after eating and drinking
- Watery eyes or runny nose during eating and drinking
- Multiple swallows seen for every bite or sip
- Shortness of breath when eating or drinking
- Food or liquid escaping from the mouth or becoming stuck in the mouth
- Recurring Pneumonia or chest congestion
- Weight loss or dehydration from not being able to eat enough

Aspiration: occurs when food or liquid enter the airway below the level of the vocal cords. Aspiration can lead to pneumonia.

Aspiration can be overt (outward signal) or silent

- No outward signs are seen when someone silently aspirates
- A speech therapist will evaluate if a patient is aspirating and recommend therapy or strategies to reduce this risk.

Dysphagia may result in poor nutrition or dehydration, aspiration (food or liquid entering the air way), pneumonia, less enjoyment of eating and drinking, and embarrassment/isolation in social situations centered around eating.

Causes of Swallowing Disorders:

Damage to the nervous system may cause swallowing disorders in adults. Swallowing disorders may arise after one of the following events:

- Stroke
- Brain injury
- Spinal cord injury
- Parkinson's disease
- Multiple Sclerosis
- Muscular Dystrophy
- Cerebral Palsy
- Alzheimer's disease

Diagnosis and Evaluation

A Speech-Language Pathologist (SLP) can evaluate individuals experiencing difficulty with eating and drinking.

The SLP will review patient history, medical condition and current symptoms

A **bedside swallow evaluation** may be performed. A bedside swallow evaluation is a process used by the SLP to examine the patient's swallow and evaluate the overt signs and symptoms of aspiration. The SLP will use this information to determine if the patient is appropriate to start a diet or if further evaluation is required.

Modified Barium Swallow Study (MBSS): The individual eats and drinks food or liquid with barium in it for the SLP to view the swallow process under x-ray

Endoscopic Assessment (FEES): A lighted scope is put in the nose to the level of the throat and the swallow process is then viewed on a screen.

Treatment

Treatment is individualized based on the results of each person's evaluation with the ultimate goal of safe eating and drinking as independently as possible.

Some recommendation may include:

- Specific Swallow Treatment (e.g. programs or exercises)
- Positioning strategies
- Change in food or liquid textures of “safe” swallowing

Description/Explanation of altered food and liquid textures:

Liquids

- **Thin:** Regular liquids such as water, juice, soft drinks etc.
- **Nectar Thick:** Liquids thickened to the consistency of nectar
 - Examples of items naturally occurring at this consistency include V8, buttermilk, mighty shakes
- **Honey Thick:** Liquids thickened to the consistency of honey or thin pudding
 - Examples: Honey
- Items such as ice, jell-o, juice, milk, water, tea, ensure, ice cream and soup broths are all THIN liquids.

Food Consistencies (diets)

- **Level 1:** Dysphagia-Pureed (homogenous, very cohesive, pudding-like, requiring very little chewing ability). Examples: cream of wheat, thinned grits, pureed or scrambled eggs, applesauce, smooth yogurt, pudding, Jell-O, strained soups, mashed potatoes, pureed vegetables, pureed fruits, pureed meats with gravy, ice cream, sherbet, and baby foods
- **Level 2:** Dysphagia-Mechanical Altered (cohesive, moist, semisolid foods, requiring some chewing; ground meats, no bread, soft vegetables). Examples : thinned oatmeal, grits, cereal without nuts or dried fruits, scrambled or poached eggs, all yogurt, cottage cheese, soups without chunks, fork-mashed vegetables, fork-mashed fruits, pasta, baked and mashed potatoes, baked fish, ground meats with gravy, cream pies, egg salad, fish salad, and all pureed foods.
- **Level 3:** Dysphagia-Advanced (soft foods that require more chewing ability; chopped meats, bread, salads). Examples: all eggs, pancakes with syrup, french toast with syrup, canned fruits, soft cooked vegetables, meat salads, chopped meats with gravy, rice with gravy, pasta, french fries, pies, soft cookies, biscuits, rolls, and all foods on Puree and Mechanical I diets. This does not include any hard raw vegetables, crisp fruits, fried meats or vegetables, nuts, seeds or dried fruits.
- **Regular** (all food consistencies as per nutritional recommendations).

General Swallow Precautions in order to reduce the risk of choking:

1. Sit in an upright position when eating and drinking (90 degrees)

2. Eat slowly
 3. Reduce distractions
 4. Make sure the mouth is clear completely between bites
 5. Take small bites and sips
 6. Remain in an upright seated position for about 30 minutes after eating and drinking
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- Communicate with your Speech-Language Pathologist regarding ongoing changes and strategies related to swallow safety. As treatment progresses, diet consistencies will change. Ask questions.