

## Dysphagia After Stroke

American Stroke Association

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### Dysphagia

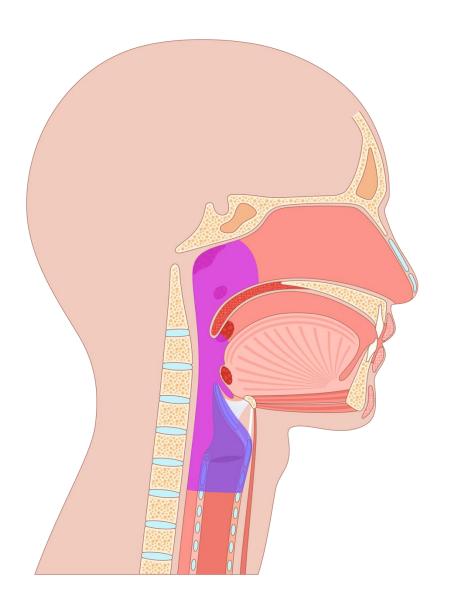
PRONOUNCED:

**DIS-FAY-JUH** 



#### What is Dysphagia?

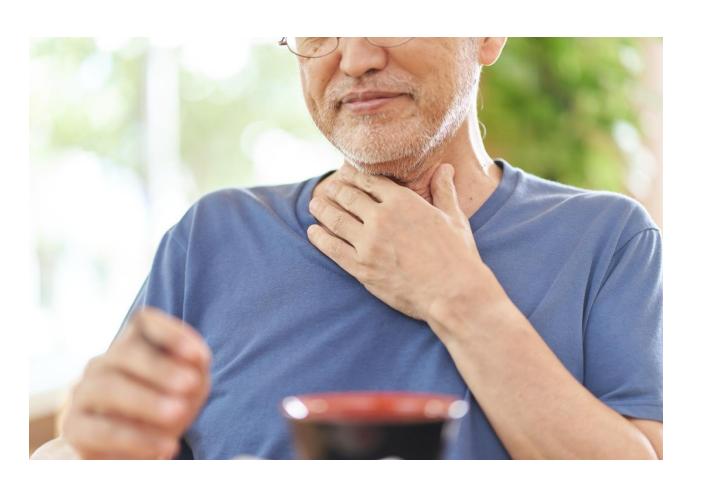
- Strokes can affect the brain's ability to control the muscles needed to swallow.
- Dysphagia is the medical term for difficulty swallowing.
- It affects how a person eats, drinks and if relevant, takes medication safely.
- It can occur at any point in the swallowing process from the mouth to the stomach.
- Nearly two-thirds of survivors of stroke will experience dysphagia during the early part of post-stroke recovery.
- Dysphagia tends to be more frequent in women than men across all age groups.
- The symptoms of dysphagia should not be ignored make an appointment with your health care professional for an evaluation.
- For many, it improves over time. For others, it may persist with therapy and over the course of time, symptoms may improve.





### **Anatomy of Swallowing**

- Swallowing is a highly coordinated process and involves muscles of the mouth, throat and esophagus.
- Swallowing has three stages:
  - Oral phase: Chewing and moving food to the back of the mouth
  - Pharyngeal phase: Swallow reflex is triggered and food passes through the throat
  - Esophageal phase: Food moves to the stomach through the esophagus for digestion





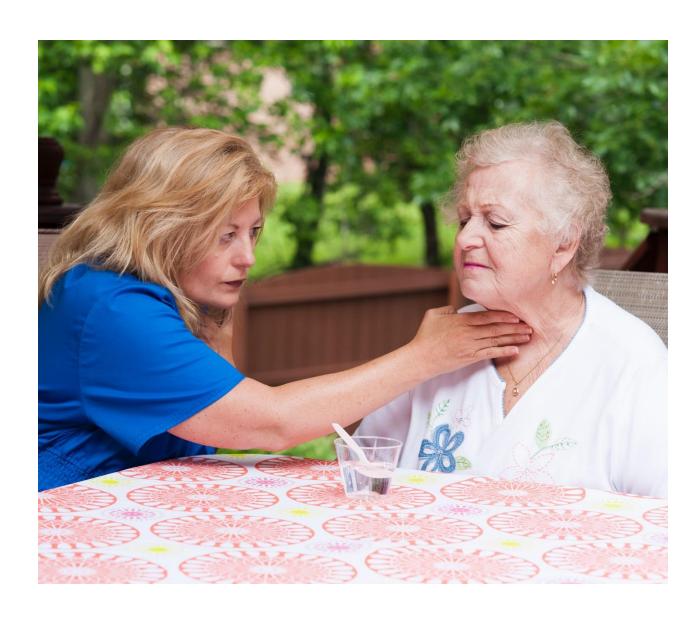
Brain injury from a stroke can affect the movement, coordination or sensation needed for swallowing.

#### This can cause:

- A delay in swallow onset
- Reduced control and strength of cheek, lip and tongue
- Weakness in the muscles of the throat
- The airway to not close properly

Dysphagia, if not diagnosed or left untreated can result in aspiration (food or liquid entering the airway), which can lead to pneumonia.

#### **Changes After Stroke**





#### Symptoms of Dysphagia

- Pain or discomfort while swallowing
- Not being able to swallow (food or pills remaining in the mouth or stuck in the throat)
- Drooling
- Coughing or throat clearing during or after eating or drinking
- "Gurgly" or wet-sounding voice after swallowing

- Difficulty coordinating breathing and swallowing
- Eating slower than normal or avoiding eating/drinking
- Feeling that food or drink has "gone down the wrong way"
- Weight loss, malnutrition or dehydration
- Recurrent chest infections or pneumonia

If you or someone you support is showing these signs, it's important to ask for a swallowing evaluation from your health care team.



#### **Complications from Dysphagia**

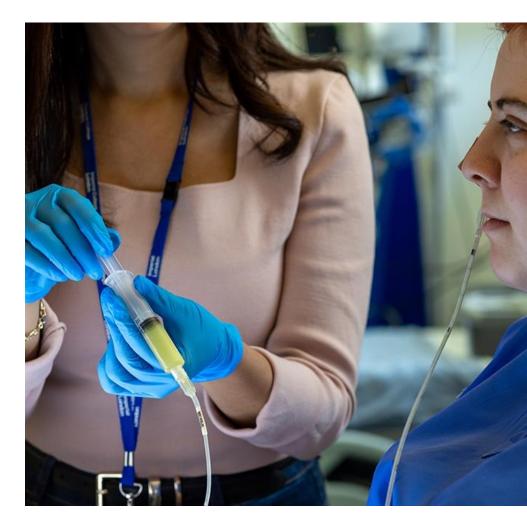
#### Dysphagia can negatively impact quality of life and can result in:

- Malnutrition, weight loss and dehydration not enough food and liquid intake.
- Social withdrawal due to embarrassment about eating in public.
- Anxiety and panic during mealtimes.
- Aspiration pneumonia when food or liquid gets into your airway and causes respiratory infection. This is often referred to as something "going down the wrong pipe".
- Longer hospital stays and higher health care costs.
- Food stuck in the throat can cause choking. If the food completely blocks the airway and isn't cleared, death can follow.



#### **Screening for Dysphagia**

- To establish the origin of symptoms, a patient provided history can be taken and include questions such as:
  - Does it take longer than usual to swallow your food?
  - What type of food or liquids do you have difficulty with?
  - Is there heartburn or feeling like there is food stuck in your chest?
- The patient interview can be either paired with or followed by monitoring for the presence of the signs and symptoms of swallowing dysfunction.
- Screening tools for dysphagia include water tests, food tests
  of different consistencies, and self-evaluation questionnaires. Dysphagia
  screening should be completed shortly after stroke and before starting
  oral feeding to prevent any complications.

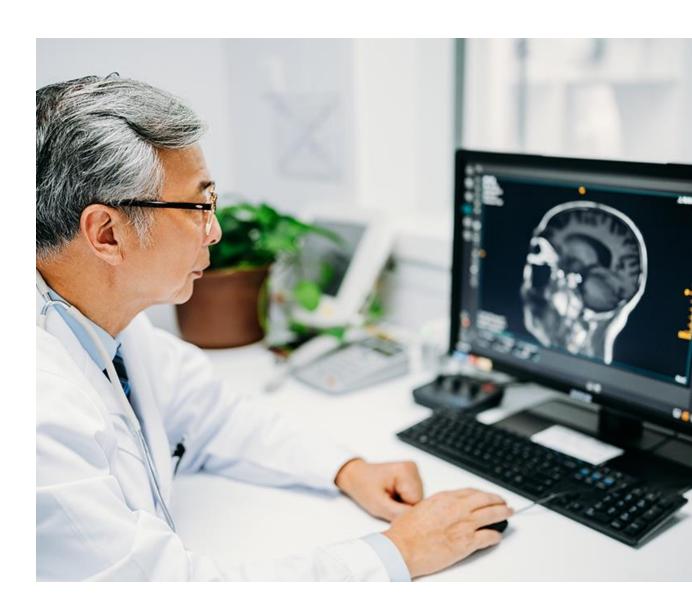


A Speech-Language Pathologist (SLP), otherwise known as a speech therapist, is considered the expert in assessing and treating dysphagia.



- Diagnosis for dysphagia involves screening, clinical evaluation and instrumental evaluation.
- Screening may result in additional assessments or referrals for other examinations, including non-instrumental and instrumental procedures.
- The best method when assessing for dysphagia is an instrumental swallow study. Modified Barium Swallow Studies (MBSS) and Fiberoptic Endoscopic Evaluation of Swallowing (FEES) allow the speech therapist to visualize anatomy and movement of your swallow while eating and drinking various items.
- A non-invasive imaging test is used to observe the movement of the structures used for swallowing, such as the tongue.
- Additional assessments may be needed for evaluation including high-resolution manometry, a diagnostic procedure used to measure pressure activity produced in the pharynx and the esophagus.

#### **Dysphagia Diagnosis**





Dysphagia treatment after stroke often includes a combination of behavioral, medical and surgical treatment approaches. Treatment options should be individualized.

- Behavioral strategies, such as:
  - Adjusting posture (e.g., chin tuck)
  - Swallowing maneuvers (strategies used to change the timing or strength of specific movements of swallowing for improved safety)
- Swallowing exercises include exercises of the lips, jaw, tongue, soft palate, pharynx and larynx to improve function.
- Expiratory Muscle Strength Training (EMST) to improve the strength and function of the muscles used in breathing, coughing and swallowing.
- Diet modifications changing food texture or liquid thickness.

#### **Treatment Options**

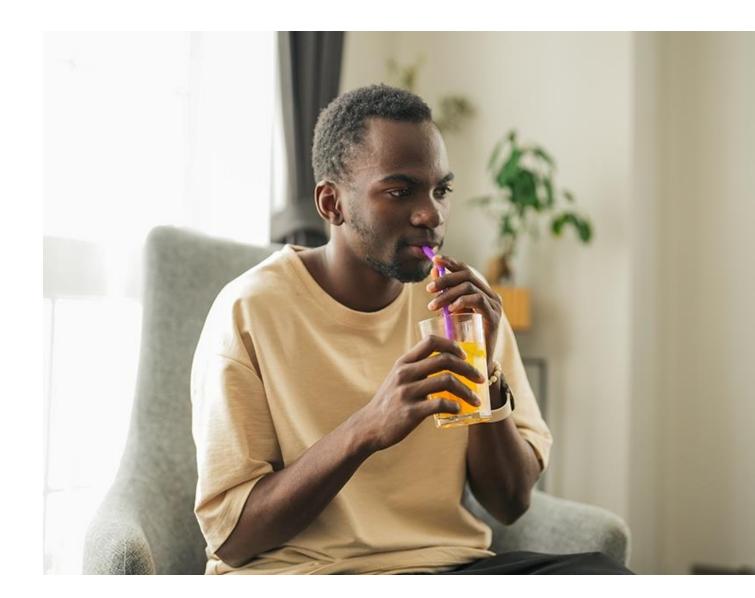




#### **Treatment Options**

Continued

- Feeding strategies.
- Electrical stimulation can be used to activate swallowing muscles.
- Oral prosthetics can sometimes be recommended to normalize pressure and movement inside the mouth.
- Adaptive equipment (e.g., slow flow cup or straw).
- Medications such as anti-reflux or salivary management.
- Surgical procedures may be used in some specific cases.
- Tube feeding may be recommended when the individual cannot obtain sufficient nutrition and hydration orally.

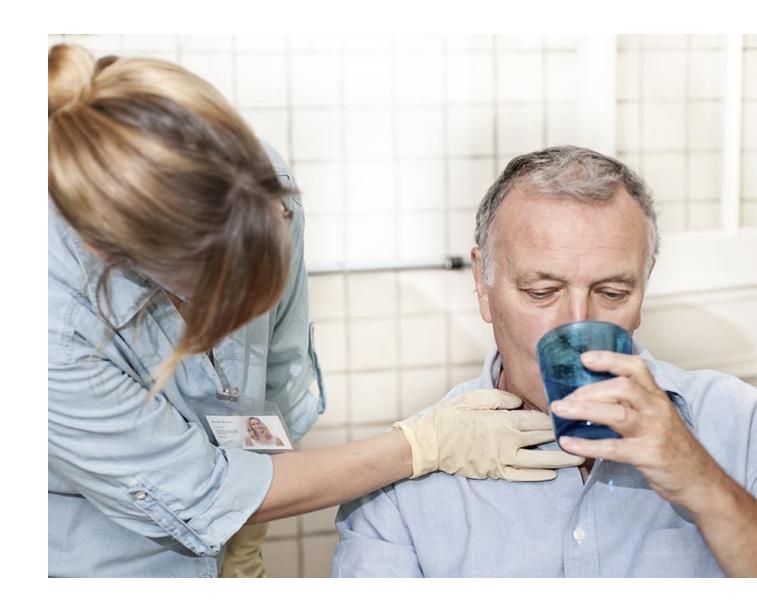




- Many people regain safe swallowing after stroke with therapy and support.
- Early intervention is key.
- Ongoing practice and professional guidance can lead to significant improvement.

"Recovery takes time. Celebrate progress and don't hesitate to seek help."

#### Hope Through Recovery





Consult with a Speech-Language Pathologist (SLP) to develop a therapy plan that reflects your individual needs, including cultural background, religious beliefs and preferences for medical treatment.

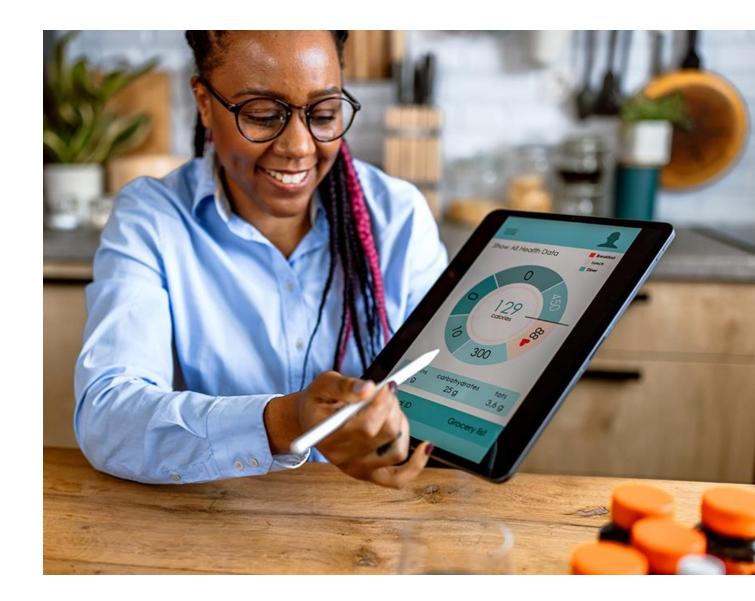
#### **Coping Techniques**





A dietician plays a crucial role as part of your health care team. They can assist with diet modifications, such as creating a nourishing and safe eating plan for you.

#### **Coping Techniques**



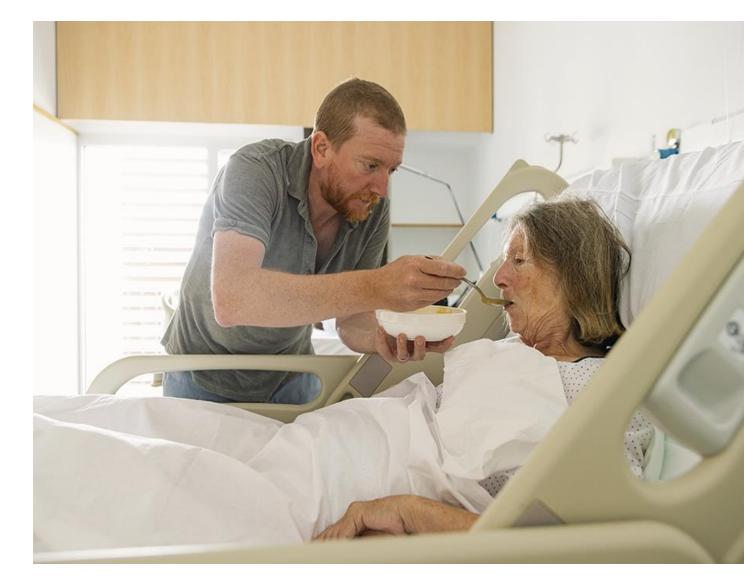


#### **Coping Techniques**

Engage in regular swallowing exercises to regain strength, improve function and restore confidence in eating safely.

#### Why Repeating Exercises Helps the Brain Heal?

Doing the same exercises and activities over and over is very important for stroke recovery. This helps the brain "retrain" itself by building new connections. When one part of the brain is damaged, other healthy parts can learn to take over. This can lead to better movement, speech, and thinking skills.





#### **American Stroke Association**

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**American Speech-Language-hearing Association** 

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NIH Dysphagia Guide

NIH Dysphagia Guide

"You're not alone — reach out for support and professional help when needed."

#### **Resources and Support**





### Group Discussion



#### What are the symptoms of dysphagia?



Who are the key players of my health care team that will help me be successful with recovering from dysphagia?



## What types of exercises can I do at home to help with my dysphagia?



## What's important to tell my doctor to accurately diagnose dysphagia?



## Where can I get more information about dysphagia and therapy?



# For more resources, visit **Stroke.org**

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