

### Disclosure

- Neither presenter has any actual or potential conflict of interest in relation to this program/presentation.
- ➤ Neither presenter received any compensation for programs or products discussed during this presentation.
- Both presenters are currently employed by the VA Central Iowa Healthcare System and receive a salary.

## Objectives

#### After this presentation listeners will:

- Be able to define dysphagia and identify signs and symptoms
- Be able to demonstrate awareness of the types of evaluations speech therapy can offer to identify dysphagia
- > Have a better understanding of treatment options for swallowing disorders

# Why would you need to see a Speech Pathologist?

A Speech-Language Pathologist completes evaluations and treatments in the following areas:

- Voice
- Cognitive/Memory Therapy
- Communication
  - Speech
  - Language
  - Alternative Augmentative Communication
- Swallowing Dysphagia

## What is Dysphagia?

**Defined:** "Difficulty swallowing and may even experience pain while swallowing." (NIH, 2021)

#### Dysphagia can occur at any level of the swallow:

- Oral/Oral Prep phase
- Pharyngeal phase
- Esophageal phase

Causes: "Any condition that weakens or damages the muscles and nerves used for swallowing" (NIH, 2021)

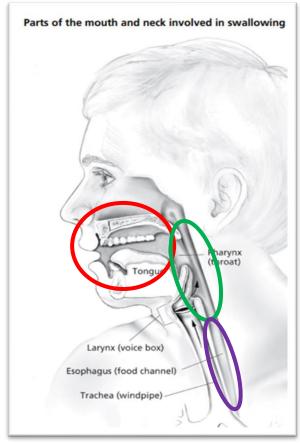


Image courtesy of NIH (2021)

## Causes of Dysphagia

#### Neurogenic

Stroke/Vascular Condition

#### Parkinson's

Tumors/Neoplasms
Huntington's Chorea
Shy-Draeger Syndrome
Spinocerebellar Degeneration
Amyotrophic Lateral Sclerosis
Progressive Supranuclear Palsy

Myasthenia Gravis
Polymyositis
Post-Polio Syndrome
Motor Neuron Disease
Muscular Dystrophy
Multiple Sclerosis
Head Injury

#### **Systemic**

Arthritis
Diabetes
Polymyositis
Scleroderma
Sjogren's Disease
Acquired Immune
Deficiency Syndrome
Chronic Obstructive
Pulmonary Disease

#### **Psychiatric**

Dementia
Depression
Pharmacologic

#### **Latrogenic**

Medication
Post-Radiation
Chemotherapy
Post-Surgery Effects

## Signs and Symptoms

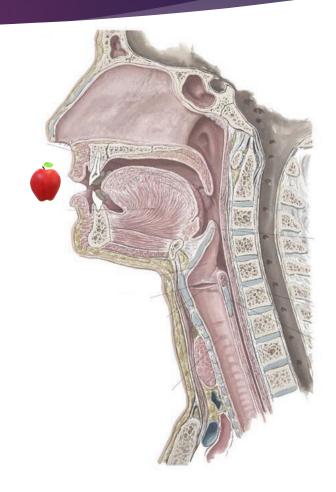
- Coughing
- Choking
- Wet voice
- Complaints of food feeling "stuck"
- Low grade temperatures
- Congestive lung sounds
- Slow rate or uncoordinated chewing
- Sneezing, runny, or blowing nose

- Throat clearing
- Watery eyes
- Fast rate of eating without swallowing
- Leftover food in mouth after swallowing
- Drooling
- Food spillage from mouth
- Pocketing of food
- Redness, facial strain



## Aspiration: What is it?

- Defined: Entry of foreign material (food, liquid, vomit, mucous, saliva) into the airway/lungs. (Marik, 2010)
- Silent Aspiration: Occurs without coughing, throat clearing, etc.



### Prevalence

- One of the leading causes of death in Parkinson's Disease is pneumonia
- Parkinson's Disease can impact all stages of swallowing
- Varies between 11% 87% depending on the disease stage, disease duration,
   and the assessing method
- Underreported and/or unaware of swallowing difficulties

# Without Effective Treatment, Dysphagia Can Lead To

- Pneumonia
- Malnutrition
- Dehydration
- Decreased quality of life
- Increased length of hospital stay
- Increase cost for care
- Reduced rehab potential
- Mortality

## Types of Swallow Function Evaluations

BEDSIDE SWALLOW EXAMINATION



VIDEO FLUOROSCOPIC SWALLOW STUDY



FIBEROPTIC ENDOSCOPIC
EVALUATION OF
SWALLOWING



# Video Fluoroscopic Swallow Study (VFSS)



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# Fiberoptic Endoscopic Evaluation of Swallowing (FEES)



## Treatment

- Traditional swallow strengthening exercises
- Expiratory Muscle Strength Trainer (EMST)
- Lee Silverman Voice Treatment
- SPEAK OUT!
- Food and drink alterations



## Food Alterations

TEXTURE NAME	DESCRIPTION	PHOTO REFERENCE
Regular	<ul> <li>Food can be eaten with any method</li> <li>Variety of textures include, but are not limited</li> <li>to: hard, tough, chewy, fibrous, stringy, pith</li> <li>inside skin, husks, bones, mixed consistencies</li> <li>No bite size requirement</li> </ul>	
Easy to Chew	<ul> <li>Food should NOT be hard, tough, chewy, fibrous, stringy, contain bones or gristle</li> </ul>	
Soft & Bite Size	<ul><li>Eat with a fork or spoon</li><li>Mashable with pressure from silverware</li><li>Pieces must be a 15x15mm bite size</li></ul>	
Minced & Moist	<ul> <li>Eat with a fork or spoon</li> <li>Holds shape on a spoon</li> <li>Pieces must be 4x15mm bite size</li> <li>Food is easily squashed with tongue</li> </ul>	
Puree	<ul> <li>Eat with a spoon or fork</li> <li>Cannot drink from cup or through straw</li> <li>Falls off spoon in a single spoonful when tilted</li> <li>No lumps</li> <li>Not sticky</li> <li>No chewing required</li> </ul>	

# Liquid Alterations

CONSISTENCY NAME	DESCRIPTION	PHOTO REFERENCE
Moderately Thick	<ul> <li>Liquid: Can drink from cup or eat with spoon</li> <li>Can't eat with fork, drips through fork tines</li> <li>Effort needed to suck through straw</li> <li>No chewing required</li> <li>Formerly "honey-thick" liquid</li> </ul>	
Mildly Thick	<ul><li>Liquid flows off a spoon in ribbons</li><li>Some effort required to suck through straw</li><li>Formerly "nectar-thick" liquid</li></ul>	
Thin	<ul><li>All liquids, H20, juices, milk, coffee, tea, etc.</li><li>Fast flow, like water</li><li>Can drink through cup or straw</li></ul>	

## **Thickener**

#### Why use thickener?

#### **Brands:**

- Simplythick
- Thick & Easy
- Thick-it
- Resource ThickenUp



# Adaptive Equipment



# Adaptive Equipment (Cont.)



## Questions



### References

- ASHA. (2002). Roles of Speech-Language Pathologists in Swallowing and Feeding Disorders [Position Statement]. Available from www.asha.org/policy.
- Schindler, Antonio et al., (2021) Consensus on the treatment of dysphagia in Parkinson's disease. Journal of the Neurological Sciences, 430, 120008.
- Dysphagia. National Institute on Deafness and Other Communication Disorders. https://www.nidcd.nih.gov/health/dysphagia. Accessed Sept. 21, 2021.
- Coates, C., & Bakheit, A. (1997). Dysphagia in Parkinson's disease. European Neurology, 38, 49–52. https://doi.org/10.1159/000112902
- Flowers, H. L., Silver, F. L., Fang, J., Rochon, E., & Martino, R. (2013). The incidence, co-occurrence, and predictors of dysphagia, dysarthria, and aphasia after first-ever acute ischemic stroke. *Journal of Communication Disorders*, 46(3), 238–248. https://doi.org/10.1016/j.jcomdis.2013.04.001
- Kalf, J. G., de Swart, B. J. M., Bloem, B. R., & Munneke, M. (2012). Prevalence of oropharyngeal dysphagia in Parkinson's disease: A meta-analysis. *Parkinsonism & Related Disorders, 18*(4), 311–315. https://doi.org/10.1016/j.parkreldis.2011.11.006
- Langmore, S. E., & Pisegna, J. M. (2015). Efficacy of exercises to rehabilitate dysphagia: A critique of the literature. *International Journal of Speech-Language Pathology, 17*(3), 222–229. https://doi.org/10.3109/17549507.2015.1024171
- Marik, P. E. (2010). Aspiration syndromes: Aspiration pneumonia and pneumonitis. *Hospital Practice*, 38(1), 35–42. https://doi.org/10.3810/hp.2010.02.276
- Parkinson Voice Project. <a href="http://parkinsonvoiceproject.org/our-speech-therapy-program/about-speak-out/">http://parkinsonvoiceproject.org/our-speech-therapy-program/about-speak-out/</a>. Accessed March 31, 2023.
- McDonnell MN, Rischbieth B, Schammer TT, Seaforth C, Shaw AJ, Phillips AC. Lee Silverman Voice Treatment (LSVT)-BIG to improve motor function in people with Parkinson's disease: a systematic review and meta-analysis. Clin Rehabil. 2018 May;32(5):607-618. doi: 10.1177/0269215517734385. Epub 2017 Oct 5. PMID: 28980476.
- Fuh JL, Lee RC, Wang SJ, Lin CH, Wang PN, Chiang JH, Liu HC. Swallowing difficulty in Parkinson's disease. Clin Neurol Neurosurg. 1997 May;99(2):106-12. doi: 10.1016/s0303-8467(97)00606-9. PMID: 9213054.
- IDDSI. International Dysphagia Diet Standardization Initiative. <a href="https://iddsi.org">https://iddsi.org</a>. Accessed March 31, 2023.

