

Swallowing Challenges with Parkinson's

Julie Hicks, MA, CCC-SLP
October 11th, 2022

About Me

- ▶ Full-time Speech Language Pathologist (SLP) at Stanford Neuroscience Health Center in Palo Alto, CA
- ▶ Part-time Department Lecturer at California State University, East Bay



Swallowing problems are a *medical* in nature.

The content in this presentation is for informational and educational purposes only.

It's not meant to be taken as personalized medical advice.

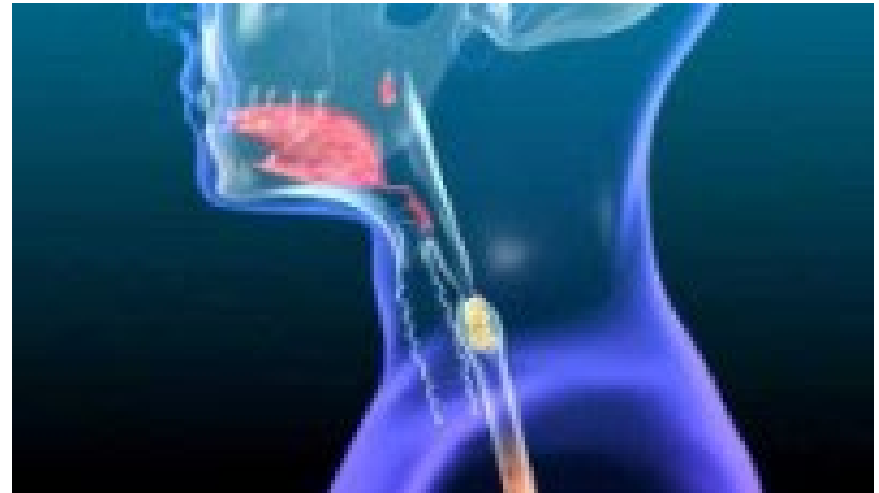
DISCLAIMER!

Today's Learning Objectives

- ▶ Talk about normal swallowing function
- ▶ Talk about signs and symptoms of abnormal swallowing function
- ▶ Talk about why progressive changes happen in these domains for persons with PD
- ▶ Talk about the role of a SLP in evaluation and treatment
- ▶ Talk about common management and treatment options

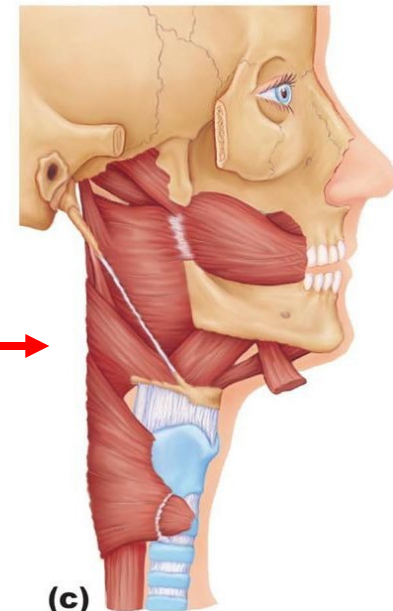
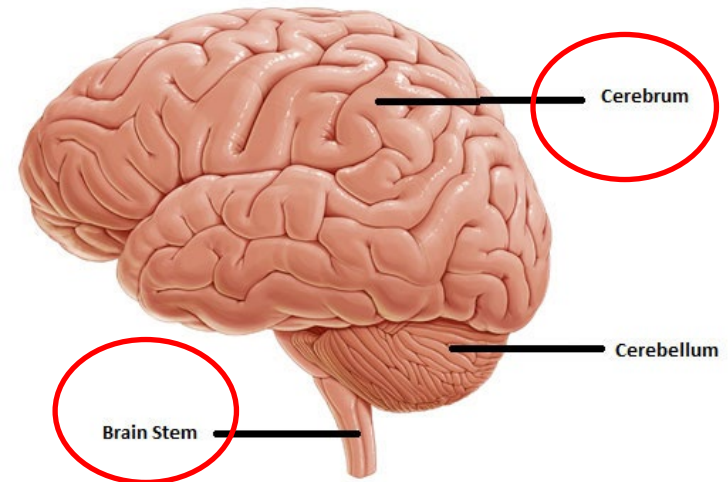
The WHY?

- ▶ Why swallowing function so important?
- ▶ The average person swallows about 900 times per day
 - 1x per minute while awake
 - 3x per hour while sleeping
 - Even more during a meal!!!!
- ▶ Swallowing problems are seen in 11%
 - 87% of people with PD
 - Varies depending on the disease stage, the disease duration, and the assessing method (Schindler et al., 2021)



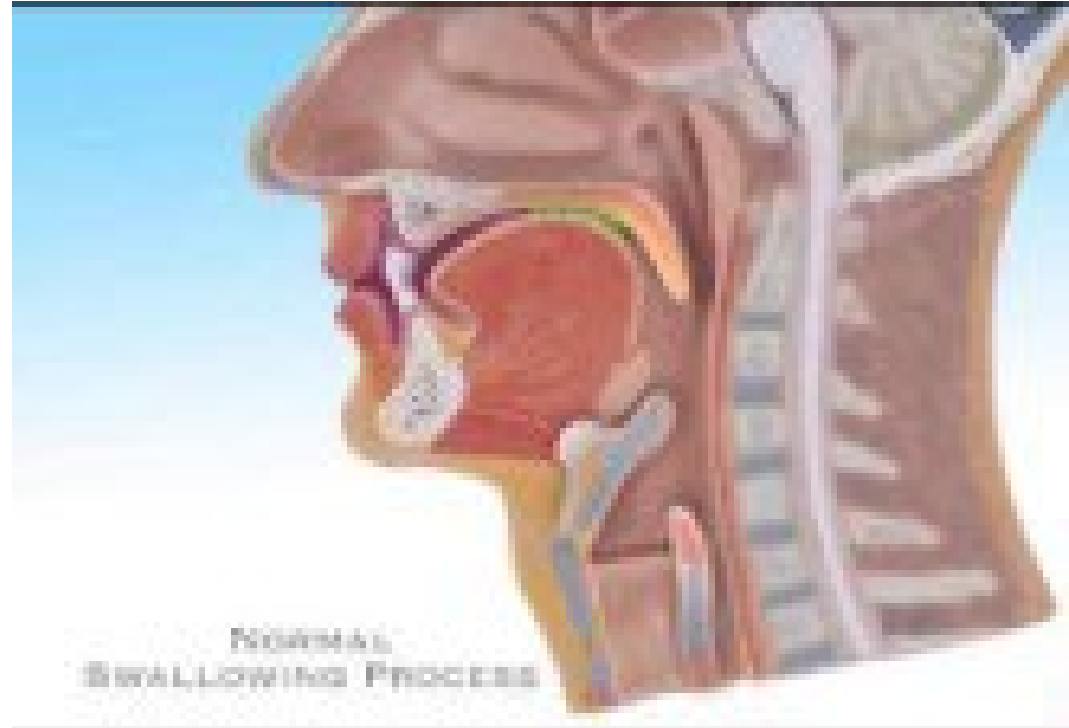
Normal Swallowing

- ▶ Swallowing is complex event
 - Involves ~50 pairs of muscles
 - Many sensory and motor cranial nerves
- ▶ It's mostly an automatic process
- ▶ However, both the cortical and brainstem regions of our brain provide neural input
- ▶ The muscles in our head and neck execute the motor plans for swallowing via cranial nerves



Normal Swallowing (cont.)

- ▶ So how does it work?
- ▶ We break swallowing down into roughly 3 phases or stages
 - ▶ Oral (*aka mouth*)
 - ▶ Pharyngeal (*aka throat*)
 - ▶ Esophageal (*aka esophagus or food pipe*)
- ▶ They are interdependent of one another
- ▶ This highly sequenced event can last ~1 second in a healthy adult



WHAT HAPPENS WHEN THINGS GO WRONG?

Abnormal Swallowing

- Safe and efficient swallowing requires a lot:
 - Good awareness of what the person is eating/drinking
 - Good posture and alertness
 - Good strength, tone and range-of-motion in all the muscle groups
 - Good timing and coordination of muscle movement

Result: it's really EASY for something to be “off”

- Dysphagia is the medical term most widely used to refer to any kind of swallowing difficulty, abnormality, or discomfort.

Signs and Symptoms

Oral Stage

- Chewing is slow and/or effortful
- Food, liquid or saliva pools out the front of the mouth
- Fast, impulsive eating or drinking (e.g. over-stuffing, “chugging”)
- Holding food in the mouth for prolonged periods before swallowing
- “Pocketing” food or liquid in the cheek cavities
- Prolonged mealtimes

Pharyngeal + Esophageal

- Increased effort to start a swallow
- Coughing
- Throat clearing
- Wet voice after swallowing
- Feeling like something is sticking in the throat
- Choking sensation
- Having to swallow multiple times to get something down

Consequences

▶ Vary from patient to patient

- Onset
- Frequency
- Severity



▶ Includes things like:

- Dehydration and malnutrition
- Unintentional weight loss
- Pneumonia or other pulmonary complications
- Disinterest or reduced enjoyment in meals
- Embarrassment
- Social isolation

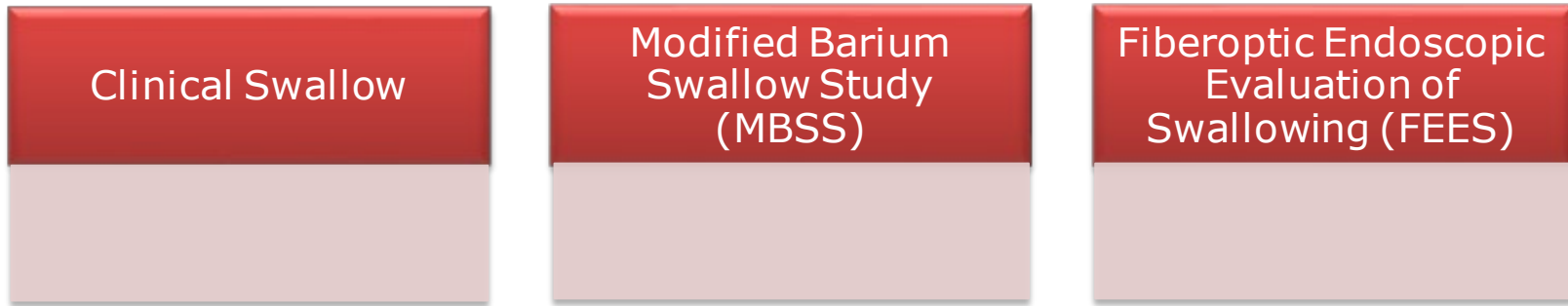


SO WHAT CAN WE DO?

Role of the SLP for Swallowing

Step 1: Evaluation

- ▶ SLPs have 3 different types of evaluations they can conduct with a patient



- ▶ Each evaluation type has its own positive and negative features
- ▶ Certain factors may determine which type(s) a patient receives
 - Clinician's preference
 - Facility and equipment limitations
 - Nature and severity of the patient's dysphagia symptoms
 - Medical fragility of patient

Role of the SLP Treatment

Step 2: Treatment

- ▶ Once the SLP knows the physiological reason *why*, treatment can begin
- ▶ Treatment recommendations are usually broken down into 3 areas



Dietary Modifications



Behavioral Adaptations + Strategies



Therapeutic Exercises

- ▶ Unfortunately, there's no specific medication(s) or surgery that can fix the whole problem

Dietary Modifications

- ▶ Based on the evaluation....
- ▶ Certain consistencies of food and/or liquid may need to be altered, avoided, or eliminated from diet

- ▶ Commercial thickening products can be mixed into liquids
 - Sometimes labeled as “nectar thick” or “honey thick”
 - Can be powder or gel-based
 - Don’t need a prescription
 - Examples: SimplyThick, ThickIt, Thick & Easy

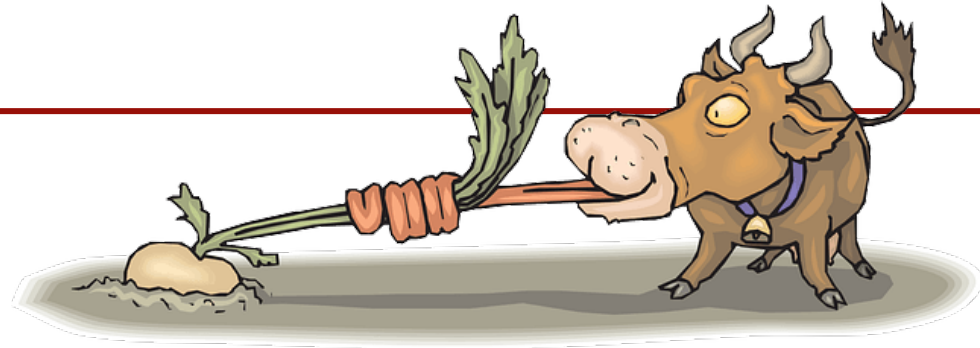
- ▶ Decisions about feeding tube placement are discussed on an individual basis
 - Very personalized decision
 - Not for everyone!

Behavioral Adaptations + Strategies

- ▶ Change how you eat + drink
 - Small sips/bites
 - Slowing down pace of eating
 - Alternating liquids/solids
 - Taking pills 1x time
- ▶ Change your posture
 - Always be seated upright
 - Avoid tilting head back
- ▶ Add excellent oral care into your routine
- ▶ Avoid distractions during meals

Therapeutic Exercise

- ▶ Swallowing exercises can be helpful early in the course of disease
 - Not everyone is a candidate
- ▶ Exercises are NOT “one size fits all”
- ▶ The exercise program also can vary
 - Intensity
 - Frequency
 - Duration
- ▶ Outcomes are not always visible
- ▶ Goal is sometimes to maintain rather than improve
- ▶ Maintenance is required for upkeep



Conclusions and Wrap-Up

- ▶ Impairments swallowing are frequent and disabling symptoms for persons with PD
- ▶ Most all persons with PD will experience symptoms of dysphagia at some point in their disease
- ▶ The onset time, progression and severity of these symptoms varies from patient to patient
- ▶ The SLP plays an important role in the management of progressive swallowing changes
- ▶ Evaluation + treatment options vary depending on the facility location/resources, clinician preferences, and individual circumstances
- ▶ **THERE IS HOPE!!!**

Resources

- ▶ American Speech-Language-Hearing Association (ASHA):
<https://www.asha.org/practice-portal/clinical-topics/adult-dysphagia/>
<https://www.asha.org/public/speech/disorders/dysarthria/>
- ▶ National Foundation for Swallowing Disorders:
<https://swallowingdisorderfoundation.com/>
- ▶ American Board of Swallowing and Swallowing Disorders:
<https://www.swallowingdisorders.org/>
 - *Use their “Find a Specialist” feature!
- ▶ Dysphagia Research Society: <https://www.dysphagiaresearch.org/>
- ▶ International Dysphagia Diet Standardization Initiative (IDDSI):
<https://iddsi.org/Resources/Patient-Handouts>
- ▶ Parkinson’s Foundation <https://www.parkinson.org/speech-swallowing-library>
- ▶ Stanford Neurology: <https://med.stanford.edu/parkinsons/symptoms-PD/speech-swallowing.html>

References

Schindler, A., Pizzorni, N., Cereda, E., Cosentino, G., Avenali, M., Montomoli, C., Abbruzzese, G., Antonini, A., Barbiera, F., Benazzo, M., Benarroch, E., Bertino, G., Clavè, P., Cortelli, P., Eleopra, R., Ferrari, C., Hamdy, S., Huckabee, M. L., Lopiano, L., Marchese-Ragona, R., ... Alfonsi, E. (2021). Consensus on the treatment of dysphagia in Parkinson's disease. *Journal of the neurological sciences*, 430, 120008.

Swales, M., Theodoros, D., Hill, A. J., & Russell, T. (2021). Communication and swallowing changes, everyday impacts and access to speech-language pathology services for people with Parkinson's disease: An Australian survey. *International journal of speech-language pathology*, 23(1), 70–82.

Umemoto, G., & Furuya, H. (2020). Management of Dysphagia in Patients with Parkinson's Disease and Related Disorders. *Internal medicine (Tokyo, Japan)*, 59(1), 7–14. <https://doi.org/10.2169/internalmedicine.2373-18>