Communication, Swallowing, And Cognition

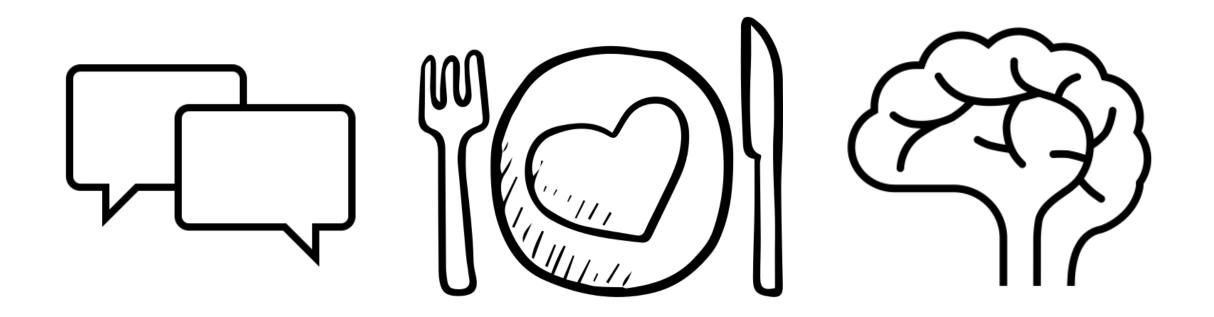
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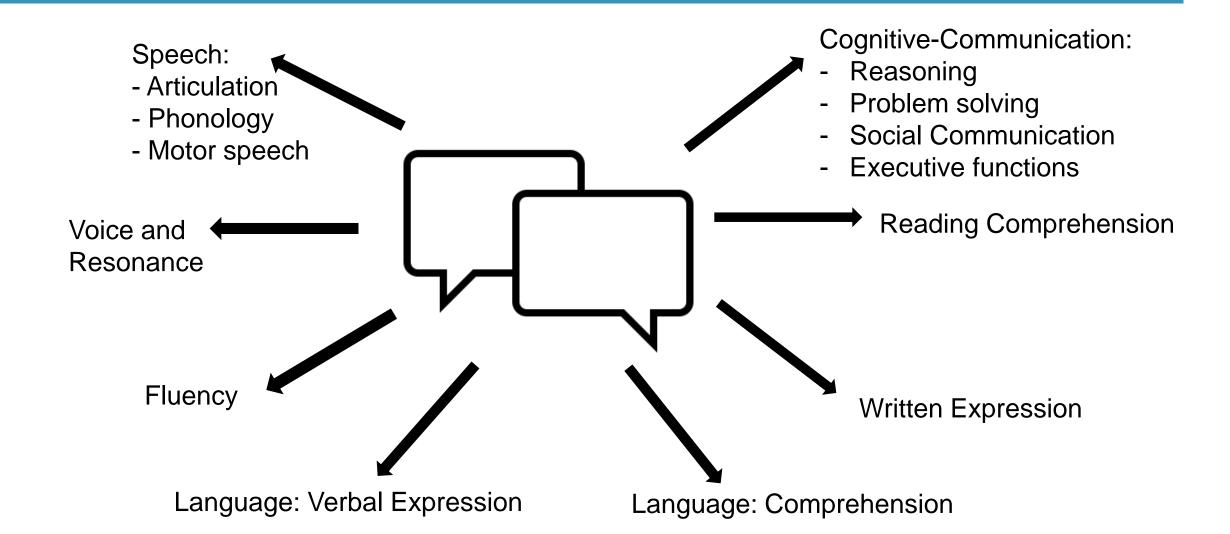
Neurology Clinic Jim Pattison Outpatient Care and Surgery Centre

Outline

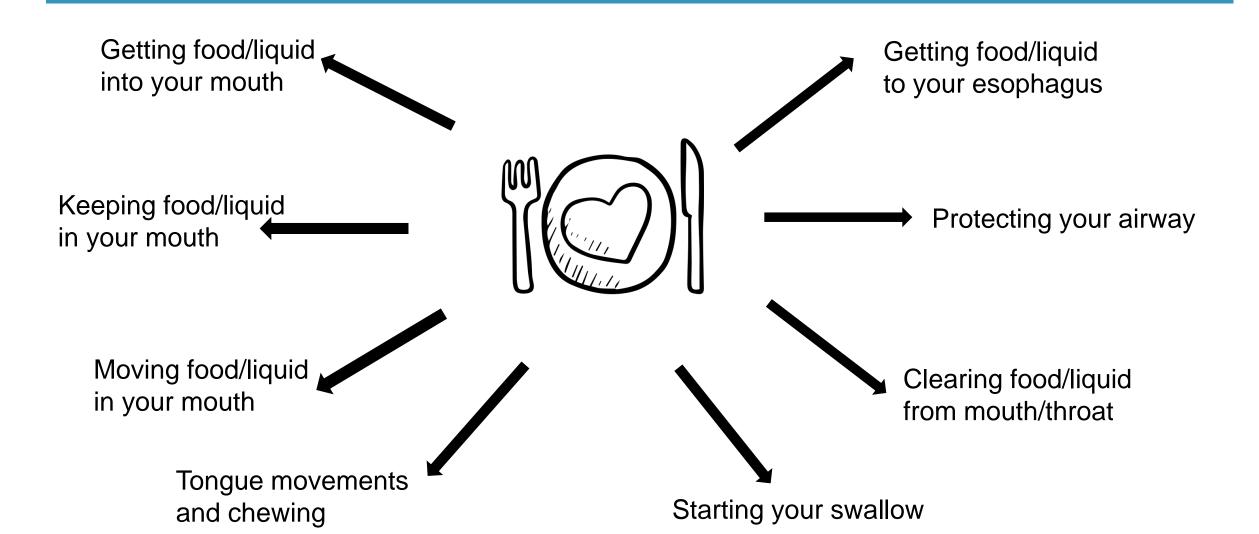
- 1. Speech Language Pathology
- 2. Definitions
- 3. Briefly: Parkinson's Disease
- 4. Communication and Swallowing Changes in PD
- 5. Cognition and possible impact on communication/swallowing
- 6. Strategies for Communication
- 7. Strategies for Swallowing
- 8. Functional Strategies for Daily Life

Speech Language Pathology



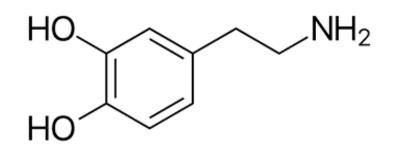


Swallowing

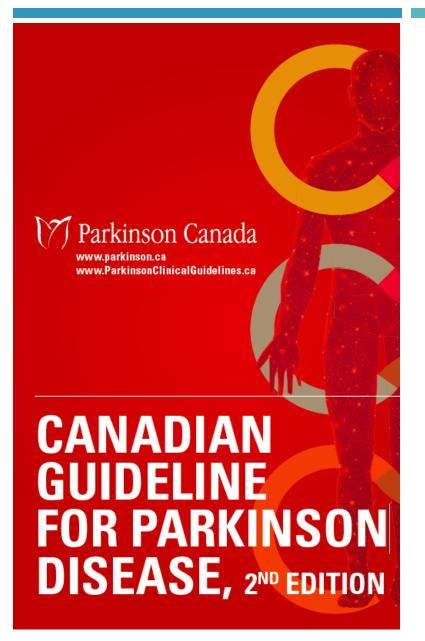


Cognition Attention **Executive Functions** Language Memory Perception Problem Solving Processing speed Reasoning

Parkinson's Disease



- Progressive movement disorder
- Loss of dopamine a key player!
- Cardinal signs: tremor, stiffness, slowed movement
- Motor and non-motor symptoms
- Whole body disease



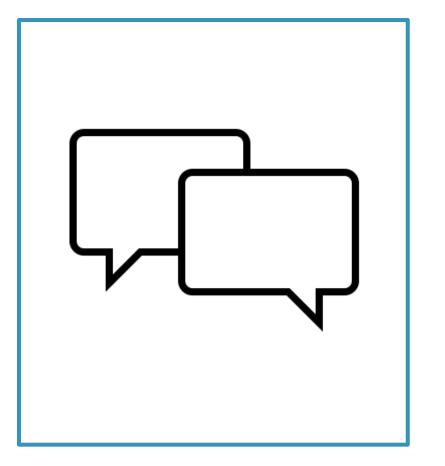
"Speech and language therapy is essential to the quality of life of patients with Parkinson disease."

"Speech and language therapy should be offered to people with Parkinson disease who are experiencing problems with **communication**, swallowing or saliva."

Communication & Swallowing Changes

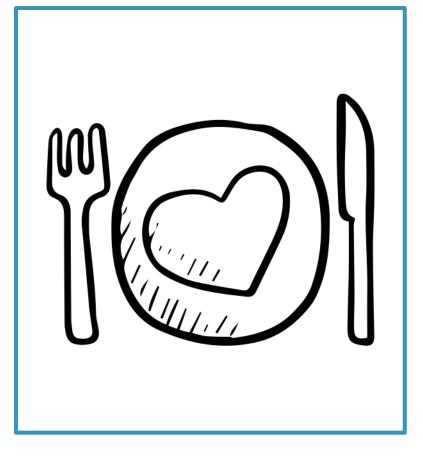
- Communication changes: between 80% and 100%
 - Ramig et al. (2008); Ho et al., (1998); Perez-Lloret et al., (2012).
 - **Psychosocial impact high** (Miller et al., 2006)
- **Swallowing**: numbers vary based on stage up to 95%
 - Perez-Lloret et al., (2012)., Harterlius and Sveenson (1994), Kalf et al., (2012), Nagaya et al., (1998); see López-Liria et al., (2020)
 - Underreported by patients (35%) vs what is evaluated by SLPs (82%) - Kalf et al., (2012)
 - Important risk factor for aspiration pneumonia (Langmore et al., 1998)

Communication Changes



- Quieter volume or difficulty changing volume
- Imprecise articulation
- Breathy or hoarse voice
- Monotone speech
- Less melody (prosody) variation
- Change in rate of speech
- Difficulty initiating speech
- Dysfluency
- Decreased facial expression
- Word finding difficulty
- Sensory feedback impacted

Swallowing Changes



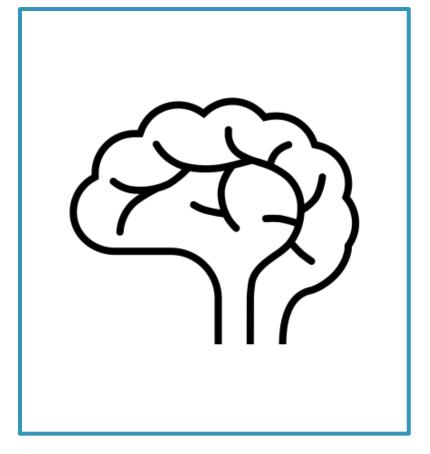
- Slow eating/drinking; increased meal times
- Pocketing food
- Trouble controlling food/drinks
- Slowed, less efficient chewing/moving food
- Difficulty starting a swallow
- Food feels stuck
- Coughing, throat clearing, or choking
- Drooling or excess saliva
- Difficulty swallowing pills
- Can be: recurring pneumonias, chest infection, weight loss, eliminating foods from diet

See a Speech Language Pathologist

If you're experiencing any of the signs or symptoms discussed on the previous slides, please ask for a referral to your speech language pathologist.

Ask for an assessment and any treatment/management options.

Cognitive Changes



Mild Cognitive Impairment and dementia can occur in the PD population.

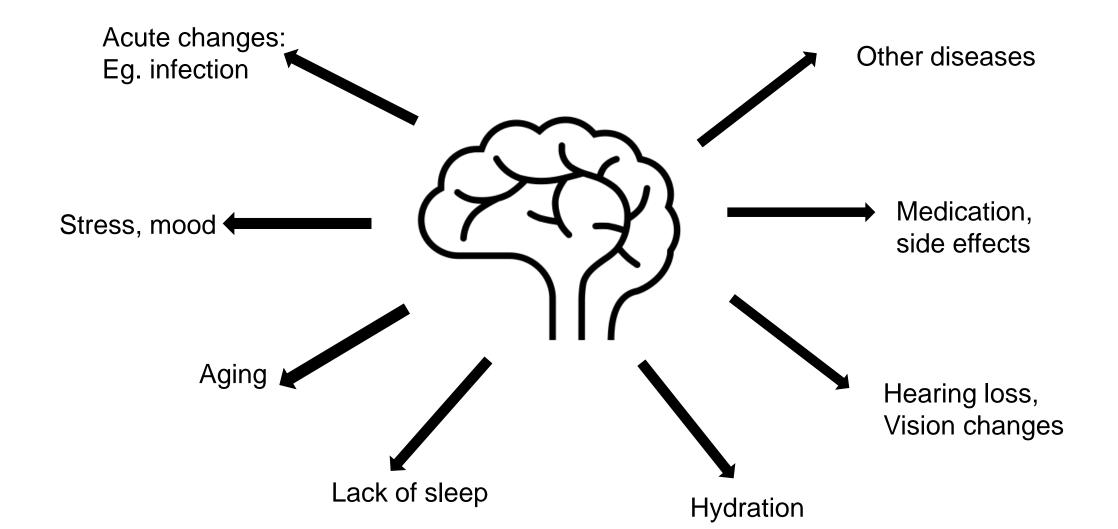
- Important to rule out other causes.

Cognitive changes:

- Memory
- Attention
- Processing speed
- Executive functions
- Perception
- Language

Cognitive changes impact speech and swallowing.

Caveat: Cognition can change for many reasons

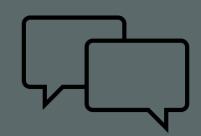


Cognition, Communication, Swallowing

Area	Possible Effect on Communication	Possible Effect on Swallowing/Mealtimes
Attention	 Difficulty multitasking Unable to divide attention Easily distracted 	 Difficulty focusing on meal Distractions Awareness of food in the mouth
Memory	 Does not recall a conversation/topic Word finding difficulties Difficulty recalling phone numbers Does not recall instructions 	 Use of swallowing strategies Forgetting mealtimes Forgetting when ate last Difficulty with steps of eating (chew, swallow)
Processing Speed	 Extra time to understand Extra time to respond Stuck on a previous topic Needs repetition 	 Slower response time to verbal cue Slower response time to food offered
Executive Functions	 Difficulty with decision making Planning a discussion, what to say Staying on topic Losing train of thought 	 Impulsive eating Difficulty slowing down

Strategies

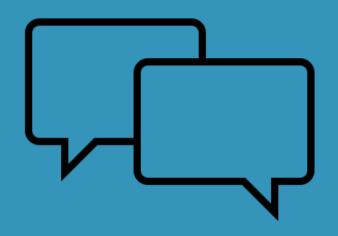
Communication
 Swallowing
 Daily life







Set yourself up for success



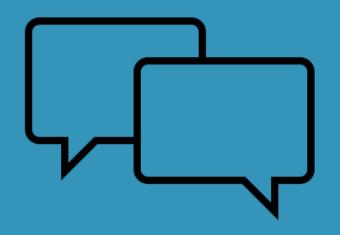
Environment:

- Reduce background noise
- Reduce distractions
- 1:1 vs group setting
- Good lighting
- Face each other
- Eye contact
- Hearing aids and glasses
- Make sure it's a good time time of day, energy, abilities
- Have conversation aids or visuals if needed



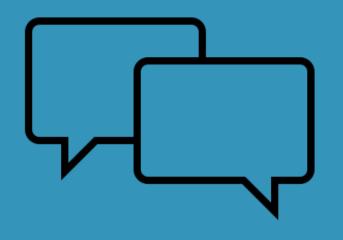


How you say it matters.



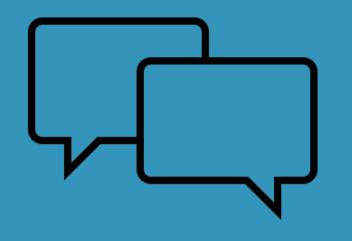
- Give context
- Simplify the message
 - Shorter sentences
 - Say it slowly and normal volume
 - Be direct (but kind)
 - Yes/No or simple choices
 - Proper names vs pronouns
 - Break it down
- Say it in more than one way
 - Pictures, objects, environment
 - Gestures
 - Memory tools
 - Write down keywords

Support understanding.



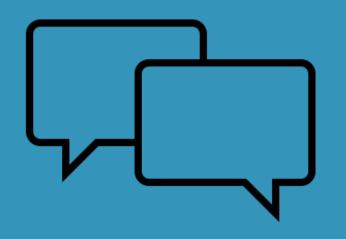
- Be patient
- Provide time to process and respond
- Confirm understanding
- Repeat the message
- Rephrase
- Summarize
- Refer to keywords
- Break down a longer message
- Hearing/Vision

Listen closely (and not just with your ears).



- Be an active listener: body language, eye gaze, intonation, context, word choice
- Be honest if you didn't understand
 - Ask for repetition
 - Ask for clarification
- Confirm
- Be open to and ENCOURAGE their strategies or other ways of communicating:
 - Notepad
 - AAC
 - Gesture, pointing, drawing...
- Be patient, encouraging, respectful
- Know when to take a break emotions
- Don't demand perfection.

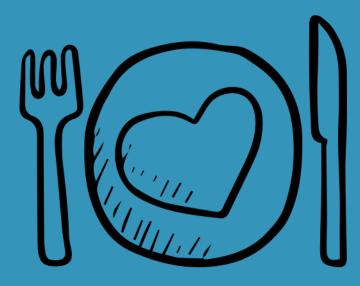
For the Person with PD



- Slow down
- Take a deep breath
- Exaggerate articulation
- Be louder
- Say it in less words
- Use other ways to communicate:
 - Writing
 - Gesture
 - Drawing
 - AAC
- Word finding strategies
- Confirm your communication partner understood
- Take a break



Swallowing and Mealtimes:



- Environment calm, quiet
- Reduce distractions
- Don't hurry
- Consider energy conservation
- Sit at eye level
- Visual or verbal cues
- Reduce bite/sip sizes
- Encourage cutlery down between bites
- Watch for swallow
- Check mouth for residue



Swallowing and Mealtimes:



- Support oral care
- Stay upright 30 minutes
- Monitor weight, intake, signs/symptoms of aspiration, pneumonia
- Incorporate wishes/choices
- Avoid force feeding
- Learn what to do in an emergency
- Pay attention to timing
- Find other ways to celebrate

* Everyone is different. Follow the recommendations of your SLP, as they pertain to you.

Strategies for Daily Life





Don't underestimate the power of routine!



Daily routine – check it off

Calendar, planners, whiteboard, notebooks

A place for everything, and everything in its place.

Laminated lists & check boxes

Habit stacking

Support independence



Reminders



- Groceries
- Phone numbers
- Sticky notes or whiteboard markers!
- Alarms, smartphones, watches, Time Timer
- Notebooks:
 - Daily diary
 - For lists
 - By the phone
- Labels
- Colour code







Orientation Station



• An area in your home with information about the day, month, time, year.

Can include:

- monthly calendar
- a whiteboard
- important contacts
- daily routine
- digital clock
- photos of family/friends

Launch Pad



- Designated place for everything you need when:
- You leave the house:
 - Keys, purse, mask, mobility aid
 - Emergency contact information
 - Note reminders
- Can be adapted to other areas





Memory books



- Put together a photo album with:
 - About me page
 - Where I was born, job, family, accomplishments
 - Hobbies, interests
 - Pictures of family and friends with names
 - Emergency contact information
- Use as a communication support or reminiscing



Technology

- Alarms on clocks or smart phones
 - Importance of snooze!
- Voice activated technology (VAT) Google Home, Alexa, Siri, etc
- Set reminders on phones (calendar pop ups)
- Put appointments in phone calendars
- Use Zoom or video to maintain social connections







Stay active!

- Physical exercise
- Cognitive exercise
 - Puzzles, sudoku, word searches
- Linguistic exercise speech, voice
 - Read out loud!
 - Podcasts, radio
 - Call friends, family
 - Discuss current events, memories, your day, TV show/movie
 - Read to grandkids
 - Write emails
 - Socialize
 - Engage
 - Find a support group







Questions?

Thank you!

WORD FINDING STRATEGIES – FOR THE SPEAKER

- Name the category of the word
- **Describe it** appearance (color, shape, size), material, use
- Talk around it give as much information as you can, or relate it to a memory (eg. we saw these animals in Australia)
- Use related words eg. for "bed" sleep, tired, nap, furniture
- Use **synonyms** words that mean the same thing
- Use gestures to express meaning, describe an object, state of being, event, or point to it
- Think of the first letter
- Try the word in a sentence or if the word goes naturally with another word (eg. salt and ____)
- Use the **opposite**
- Try to write it down
- Draw a picture
- Look it up is it in a photo album or book somewhere?
- Take your time. Sometimes pausing and coming back to it makes all the difference.

Not all word finding strategies work for everyone. Give them a try to see what works for you.

WAYS TO SUPPORT WORD FINDING – FOR THE LISTENER

If you know what the speaker is trying to say, if can sometimes help to support them with some of the following:

- Give them the first few sounds of the word
- Tell them the first letter
- Write down the first few letters
- Tell them the function
- Give them a common sentence or opposite it is used with
- Give a hint related to a shared memory
- Spell the whole word aloud

Not all cues work for everyone. Test them out to see if they are helpful!

FIND A SPEECH LANGUAGE PATHOLOGIST

- 1. Ask your GP or Neurologist for a referral in public health
 - Public health may be in clinic or virtual
 - Some health authorities may have community SLPs who can come to your home
 - Some neurology clinics may have SLPs

2. If private speech therapy is an option, search Speech and Hearing BC ("Find a Professional"): http://speechandhearingbc.ca - can search by area of expertise (eg. Parkinson's) and location

References

- Hartelius L, Svensson P. (1994). Speech and swallowing symptoms associated with Parkinson's disease and multiple sclerosis: a survey. Folia Phoniatr. Logop. 46, 9–17.
- Ho, A. K., Iansek, R., Marigliani, C., Bradshaw, J. L., & Gates, S. (1998). Speech impairment in a large sample of people with Parkinson's disease. Behavioral Neurology, 11(3), 131–137.
- Kalf, J. G., de Swart, B. J. M., Bloem B. R., & Munneke, M. (2012). Prevalence of oropharyngeal dysphagia in Parkinson's disease: A metaanalysis. *Parkinsonism Related Disorders*, 18, 311–315.
- Langmore S., Terpenning M.S., Schork A., Chen Y., Murray J.T., Lopatin D., Loesche W.J. (1998). Predictors of aspiration pneumonia: How important is dysphagia? *Dysphagia.* 13, 69–81.
- López-Liria, R., Parra-Egeda, J., Vega-Ramírez, F. A., Aguilar-Parra, J. M., Trigueros-Ramos, R., Morales-Gázquez, M. J., & Rocamora-Pérez, P. (2020). Treatment of Dysphagia in Parkinson's Disease: A Systematic Review. International journal of environmental research and public health, 17(11), 4104.
- Miller N, Noble E, Jones D, Burn D: Life with communication changes in Parkinson's disease. Age Ageing, 35(3), 235–239 (2006).
- Nagaya, M., Kachi, T., Yamada, T. *et al.* Videofluorographic Study of Swallowing in Parkinson's Disease. *Dysphagia*, *13*, 95–100 (1998).
- Perez-Lloret, S., Nègre-Pagès, L., Ojero-Senard, A., Damier, P., Destée, A., Tison, F., Merello, M., & Rascol, O. (2012). Oro-buccal symptoms (dysphagia, dysarthria, and sialorrhea) in patients with Parkinson's disease: Preliminary analysis from the French COPARK cohort. *European Journal of Neurology, 19*(1), 28–37.
- Ramig, L. O., Fox, C., & Sapir, S. (2008). Speech treatment for Parkinson's disease. *Expert review of neurotherapeutics*, 8(2), 297–309.