



# Speech and Communication with Parkinson's Disease: Tips and Treatments

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## What we'll cover today...

- Drooling causes & current treatments
- Speech & voice changes with Parkinson's
- Cognitive communication changes with Parkinson's
- Benefits of Speech Therapy & Communication tips
- OSU FREE Parkinson's Community classes

# — Drooling & Parkinson's Disease

## *Cause & Treatment*

- The cause of drooling in PD is not completely clear
  - Suspect due to impaired saliva clearance, meaning difficulty initiating swallows regularly enough to clear saliva.
- **There are no standard diagnostic criteria nor standard severity assessment tools for evaluating drooling in PD.**

### Treatments/Recommendations:

- Dopaminergic agents/medicines
  - *These are not completely effective*
- Local injection with botox into salivary glands
  - *Has been most effective treatment to reduce drooling*
- Make a consistent effort to swallow. However, swallowing issues (dysphagia) are common in PD.

*“Future research to explore the exact cause and develop standard diagnostic criteria and standard severity assessment tools are needed to formulate specific treatment options and improve patient care.” (Srivanitchapoom, 2014).*

## — Polling Question:

- Have you had a family member tell you that you are too quiet or they can't hear you?

# Speech and Voice Changes

- **Hypokinetic Dysarthria**

- Hypokinetic: Decreased amplitude- movements aren't as big as you think they are
- Dysarthria: difficulty with speech

- **Speech:**

- Reduced clarity due to imprecise articulation (“slurring”)
- Rate changes- short rushes or bursts of speech (talking too fast)
- Changes in prosody/vocal melody- monotone or monoloud (lack of expression in voice) (Duffy, 2005)

- **Voice:**

- Decreased loudness
- Breathy or hoarse voice

# Cognitive Communication Changes

- Attention
- Speed of mental processing
- Problem Solving
- Memory deficits
- Difficulty with word finding
- Difficulty with language comprehension



## Why do these changes happen?

- Reduced dopamine causes motor changes which effect the muscles of the face, mouth, vocal folds and respiratory system
  - decreased coordination, control and movement of the muscles needed for speech
  - imprecise articulation, increased rate of speech, breathy/hoarse vocal quality and decreased volume
- **Changes in sensory processing and perception make it hard for people with Parkinson's to recognize when their speech is not clear or too soft**
- Changes to dopamine, acetylcholine and norepinephrine can also effect cognition. Depression, anxiety, sleep disturbances, and fatigue can also effect cognition

## How do these changes impact communication?

Impacts the ability to be heard, understood, and to fully express your wants/ideas with family and friends, which can lead to:

- Talking less
- Less social
- May impact work
- Isolation
- Depression
- Decreased quality of life
- Increased caregiver distress





## — Polling Question:

- Have you ever received Speech Therapy?

# So why speech therapy?

- Limited effects with medications and/or surgery on voice and communication skills
- Limited or inconsistent effects of just focusing on the way you say the words or how quickly you say them.
- **There is a lot of evidence based research that demonstrates success with intensive treatment focused on ramping up effort and volume.**



[integratedtreatmentservices.co.uk](http://integratedtreatmentservices.co.uk)

# Speech Therapy

## Voice

- **LSVT LOUD®:**  
4x per week for 4 weeks  
Years of evidence supporting it



- **SPEAK OUT!®**  
Parkinson's Voice Project  
25 lessons in total if needed



- Both programs focus on increased intensity, loudness and intent through a series of structured tasks (sustained ah's, pitch glides, functional phrases, cognitive-communication exercises, conversation)
- Although these are structured programs, they can be tailored to fit your individual needs, deficits and interests

# Speech Therapy

## Voice- session layout

- Breathing exercises/vocal warm up
- Long and Loud “ah”
- Pitch glides
- Functional phrases
- Cognitive linguistic tasks
  
- **Tasks are individualized for patient specific interests and needs!**

# Results?

- **LSVT LOUD®:**
  - Research found that LSVT LOUD results in improvements in loudness and more variation in pitch while speaking **that are maintained 2 years post treatment.**
  - Improvements have also been seen in articulation, facial expression while talking and speech-related brain changes. (LSVTGlobal.com)
- **SPEAK OUT!®**
  - Participants achieved statistically and clinically significant improvements in speech intensity, pitch range after SPEAK OUT! As seen on self reported outcomes and perceptual speech evaluation scores. (Parkinsonsvoiceproject.org)

# Speech Therapy

## Cognitive communication

- Education and use of patient specific word finding strategies
  - Can often be paired with voice exercises
- Education and use of memory strategies
- Very individualized!!



# How to get started with Speech Therapy

- Ask your physician for a referral to speech therapy
- An initial assessment will be complete to determine your specific deficits, needs, goals, and to develop a personalized treatment plan
- Follow up sessions will be scheduled



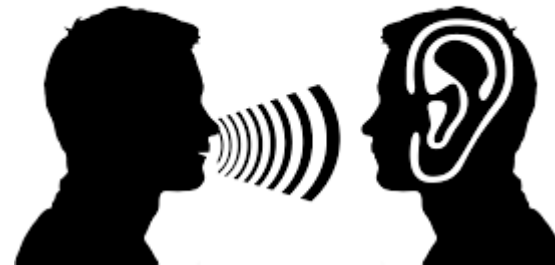
# General Communication Strategies

- **For the person with Parkinson's:**

- Increase your volume when talking!!!
- Make sure you have the listeners attention before you start talking
  - Consider making an attention getting phrase – “Hey Dear...”
- Wait for eye contact and position yourself face to face with your communication partner
- Eliminate distractions and background noise- turn off the radio, T.V., etc

- **For family members/friends:**

- Give your loved on increased time to respond- don't talk for them!
- Don't pretend you heard/understand if you didn't. Ask them to repeat themselves louder
- Use the teach back method to check for understanding





# OSU PD Community classes

## Speaking with Purpose: FREE Voice Class

- Group exercise class-instructed by a board certified Music Therapist with collaboration of a Speech Pathologist.
- Includes rhythmic movement exercises, diaphragmatic breathing, voice exercises, singing.
- ***Targeted training for voice and therapeutic singing have been associated with lasting changes for people with Parkinson's in regards to vocal volume, speech intelligibility and overall mood.***

**Location:** Live/Virtual Zoom Meeting

**Times:** Thursdays 10-11 am or 2-3pm

**Cost:** FREE

*\*This class is a rolling admission- register anytime*

**Questions:** Email [pamilyn.richardson@osumc.edu](mailto:pamilyn.richardson@osumc.edu)

**To register: [wexnermedical.osu.edu/Pdfitness](https://wexnermedical.osu.edu/Pdfitness)**

This program is supported by a community grant by the Parkinson's Foundation.



## In Summary...

- Sensory changes lead to faulty information about your speech mechanism (lungs, mouth opening, how loud you actually are)
- Requires ramping up to overcome sensory and motor challenges
- Typically need guidance/accountability provided through a SLP
- Requires some degree of repetitive drill
- Must be integrated with real world life: Must be relatable to your real life/social context of communication!