

# FLEX YOUR VOCAL MUSCLES

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# Encompass Health Rehabilitation Hospital of Harmarville

### Joint Commission Certified Parkinson's Disease Program:

- Neurofocused comprehensive treatment.
- Physician directed interdisciplinary team approach.
- Follows evidence-based Clinical Practice Guidelines.
- Clinicians trained in Parkinson's Disease specialized treatment approaches.
- Certified Rehabilitation Registered Nurses.
- PFWPA Community Support Group.
- PWR-Plus Community Exercise Program on Zoom.



# What Causes Parkinson's Disease

- Neurons that produce a chemical called dopamine die or become impaired.
- Dopamine is a neurotransmitter that relays impulses from one neuron to the next for the planning and controlling of automatic muscle movements.
- Without enough dopamine automatic movements are disrupted.
- 80% of dopamine is lost by the time motor symptoms appear in Parkinson's Disease.

### **SMALLER MOVEMENTS**

 Besides the inability to adequately activate automatic movements, Parkinson's is characterized by reduced amplitude of movement

 Although Parkinson's is labeled as progressive and degenerative, the condition typically responds favorably to exercise



### ACCORDING TO THE PARKINSON VOICE PROJECT

 Up to 90% of individuals diagnosed with PD are likely to develop speech disorders during the course of their illness potentially seriously affecting their intelligibility.

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Ho, A., 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, 131-137.
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Perez-Lioret, S., Negre-Pages, L., Ojero-Senard, A., Damier, P., Destee, A., Tison, F., Merello, M., Rascol, O. (2012). Oro-buccal symptoms (dysphagia, dysarthria, and siaiorrhea) in patients with Parkinson's disease: preliminary analysis from the French COPARK cohort. European Journal of Neurology, 19, 28-37.

# Hypokinetic Dysarthria is a motor speech disorder associated with Parkinson's disease

# Some symptoms are:

- Imprecise articulation
- Reduced vocal volume
- Hoarse-sounding vocal quality
- Frequent throat clearing
- Trailing off at the end of sentences
- Inconsistent production of the voice





# **ATTENUATION IS KEY**

• People with Parkinson's Disease perceive they are speaking louder than they actually are:



The more popular evidence based Speech Therapy focus on bringing some aspect of speech production under volitional control.

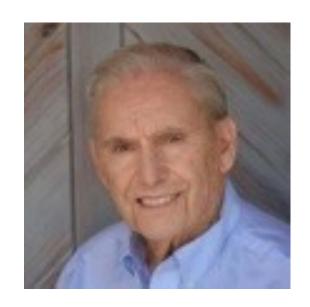
	LSVT	SPEAKOUT!
Research Supported	Yes	Yes
# Treatment Sessions	16	12
Days per week	4	3
Session Length	60 minutes	45 minutes
Home Program	Exercises	Workbook with daily tasks
Usually covered by Medicare	Yes	Yes
Treatment Focus	Highly structured; Focus on being LOUD and sensory calibration	Flexible program; Focus on using intent. Incorporates cognition
Group therapy component maintenance	No	Yes

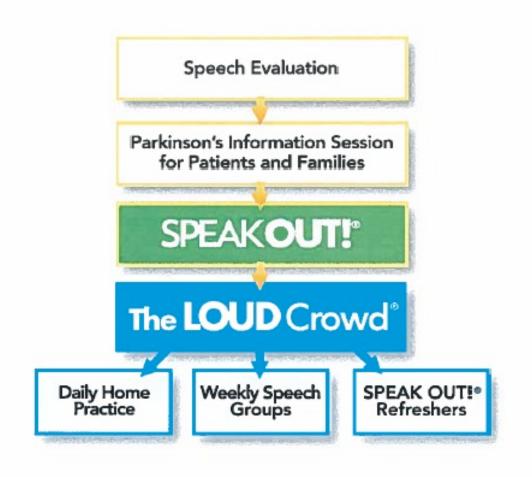
# **SPEAK OUT!**

- Is an evidence-based speech therapy treatment approach developed by the Parkinson's Voice Project.
- Enables people with Parkinson's Disease to regain and maintain speaking abilities.
- Utilizes principles of motor learning and activity dependent neuroplasticity.

### "Intent" is the focus of treatment

- Discovered in the 1950's by Daniel Boone, Ph.D.
- Addresses the disruption of automatic movements caused by dopamine depletion.
- Speaking with purpose and deliberation may improve vocal volume and speech clarity.





# LET'S TRY TO SPEAK WITH INTENT!

# WARM UP- SYLLABLES

May, Me, My, Moe, Moo

# WARM UP- Sustained Vowel and Glide "AH"

# WARM UP- Counting

2
 3
 5top
 6
 8
 9
 Stop
 10
 11
 12
 Stop

# Reading Exercise

Hi there.

Good Morning.

How are you?

Who is calling?

Come over here.

I love you.

See you later.

I am working hard.

I am doing great!

**SPEAK OUT!** 

# Complete each phrase with INTENT

Up and	You and
Cream and	Old and
Stop and	First and
Bacon and	Paper and
Hot and	Night and

# SPEAKING WITH INTENT MEANS TO ...

- FOCUS
- CONCENTRATE
- BE PURPOSEFUL
- BE MINDFUL
- TAKE CONTROL OF YOUR SPEECH
- PUT FORTH CONSCIOUS EFFORT
- SAY IT LIKE YOU MEAN IT
- IGNORE WHAT FEELS NATURAL OR NORMAL
- BE DELIBERATE!

# SUGGESTIONS FOR EFFECTIVE COMMUNICATION

- Control the environment.
- Look where you want your voice to go.
- Face your communication partner.
- Make eye contact.
- Good posture body alignment.
- Use your best speech all the time.
- Exercise your voice every day.

# Practice with Us!

- PWR! Plus
- https://pfwpa.org/event/pwr-plus

Presented by Encompass Health Harmarville Instructors: Casey Rodak and Valerie Bucek

Join this unique class which will include 30 minutes of PWR! (Parkinson's Wellness Recovery!) led by Casey Rodak AND 30 minutes of voice exercises incorporating concepts from SPEAK OUT! And The LOUD Crowd led by Valerie Bucek, SLP - Tuesdays at 3:00 pm.

#### Additional Resources Available at:

parkinsonvoiceproject.org

