



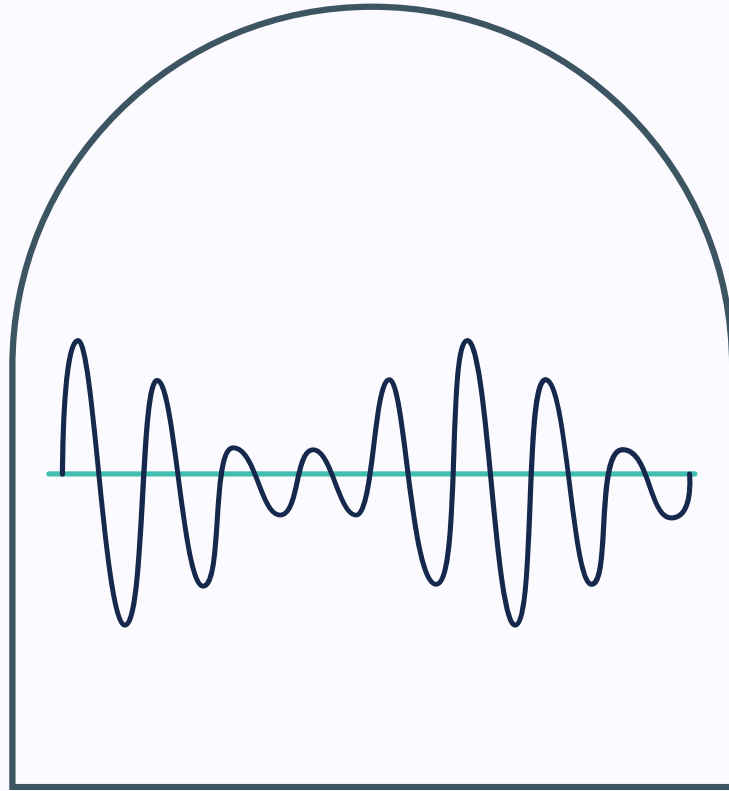
THERAPY COMPANION

*A Comprehensive Resource Guide
for Parkinson's Voice Therapy*



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CORE EXERCISES A



- *Troubleshooting My Voice*
- *Flat Pitch*
- *Upward Pitch Glide*
- *Downward Pitch Glide*

CORE EXERCISES A

1

Sustained/Flat “ah”

Focus: Endurance + steady loudness (10 seconds)

Do: Take a deep breath.

Hold your voice steady and strong for 10 seconds

- Think: clear, tall, and supported.
- Maintain a big, open mouth posture
- Aim for 80 dB voice

6x
each
for 1-3

2

Upward Pitch Glide

Focus: stretching the vocal folds for pitch range- not time

Do: Start at your comfortable pitch, then glide up smoothly.

- Keep it connected-Strong voice all the way up

My
Target
Pitch:

3

Downward Pitch Glide

Focus: Contracting the vocal folds for pitch range, not time

Do: Start at your comfortable pitch, then glide down smoothly.

- Keep it connected - Strong voice all the way down

My
Target
Pitch:

Troubleshooting My Voice

a.

If Feeling or Sounding Hoarse

- Try opening your mouth wider
 - Reset with an easy onset:
 - “mmmaaaah.”
 - Focus on feeling the vibration in your lips
 - Back off the effort slightly- strong but easy.
-

b.

Pitch Adjustments

- Use different vowels to reduce tension
 - “ah”
 - “ee”
 - “wu”
 - Quick Draws for improved range
 - Quick glide up/down- like vocal push-ups
-

c.

General Cues For Improving Quality

- Wide open mouth posture
 - Clear voice
 - Open throat
 - Forward vibration
-

d.

Voice Quality Exercises

1. Gentle Humming/Resonant Voicing (30 seconds)

- Hum “mmm” softly and steadily. Feel vibration in your lips and nose (not your throat).
- Open your jaw wide but keep your lips together

2. Lip Trills (5–10 repetitions)

- Blow air through relaxed lips: “brrrr.”
- Keep airflow steady and smooth.

3. Straw Phonation (see page 53)

FUNCTIONAL PHRASES

Write 10 phrases you use regularly. This is for real life speech practice.

1.

2.

3.

4.

5.

Repeat
5x each

6.

7.

8.

9.

10.

Repeat
5x each

LEVEL 1 EXERCISES



- *Words & Phrases*

Common Words Practice

Say each word LOUD and CLEAR

| | |
|------------|-------------|
| Yes. | Okay. |
| No. | Not bad. |
| Help! | Fine. |
| Thank you! | Excellent. |
| Please. | Oops. |
| Sure. | Really? |
| Great. | Bad. |
| I'm ready. | Not now. |
| Wow! | Oh no. |
| Let's go. | I guess so. |
| Now. | Bye. |
| Later. | What's new? |
| Who? | Good night. |
| What?. | |
| When? | |
| Where? | |
| Why? | |
| How? | |

- *Take a breath after each word*
- *Say each 2x*

Complete the Phrase

Answer LOUD and CLEAR

1. Open the _____.
2. Turn on the _____.
3. Cut with a _____.
4. Drive a _____.
5. Drink a cup of _____.
6. Wash with _____.
7. Salt and _____.
8. Needle and _____.
9. A dozen _____.
10. Read a _____.
11. Write with a _____.
12. Ride a _____.
13. Cream and _____.
14. Answer the _____.
15. Sleep on a _____.
16. Sit on a _____.
17. Pay the bill with _____.
18. Light a fire with a _____.
19. Bread and _____.
20. Eggs and _____.

- *Take a breath after each*

Phrase Repetition 1

Repeat LOUD and CLEAR

Good morning.

Let's go.

Call me back.

I need help.

What time is it?

See you later.

It's too cold.

I love you.

Please sit down.

I'm fine.

I don't feel good.

What's the weather
today?

Give me the remote.

Get the phone.

Who is calling?

It's time to go.

I'm not sure.

Come here please.

You're kidding!

Where are you going?

I don't feel good.

What's for dinner?

Have a good day.

- *Take a breath after each phrase.*
- *Say each 2x.*

Categories

Name 3 LOUD and CLEAR

Fruits:

Animals:

Clothes:

Sports:

Pets:

Vegetables:

Tools:

Kitchen Items:

Bathroom Items:

Colors:

Weather:

Flowers:

Body Parts:

Things you Read:

Things with a Point:

*Level Up:
Name 5 in
each
category.*

Generate A Sentence

Use the words below to generate a sentence. Speak LOUD and CLEAR. Target >5 words.

1. apple
2. book
3. car
4. bed
5. soap
6. going
7. grass
8. child
9. make
10. pants
11. house
12. pushing
13. laugh
14. gate
15. shopping
16. determined
17. identical
18. overlook
19. noble
20. gathering

Question vs Statement

Rising intonation for questions
Firm/Falling intonation for statements.

| | |
|---------------------------|-----------------------|
| Are you ready ? | I am ready. |
| Is it raining? | It is raining. |
| Do you want coffee? | I want coffee. |
| Are we leaving now? | We are leaving now. |
| Can you help me? | You can help me |
| Is this your book? | This is my book. |
| Did you call your doctor? | I called my doctor. |
| Are you feeling ok? | I am feeling ok. |
| Do you like pizza? | I like pizza. |
| Should we go outside? | We should go outside. |

LEVEL 4



- *Cognitively Loaded*
- *Dual Motor Tasks*

Naming → Then Alphabetize

- In this activity, you will practice thinking of many words in a category.
 - After you generate your list, you will challenge your brain by putting the words in alphabetical order.
 - Strong voice on every word.
 - Don't let your volume drop as you think.
-

1. Name 5 animals, then alphabetize them.
2. Name 5 fruits, then alphabetize them.
3. Name 5 vegetables, then alphabetize them.
4. Name 5 things in a kitchen, then alphabetize them.
5. Name 5 types of clothing, then alphabetize them.
6. Name 5 jobs or professions, then alphabetize them.
7. Name 5 things you see outside, then alphabetize them.
8. Name 5 holidays or celebrations, then alphabetize them.
9. Name 5 places in a town, then alphabetize them.
10. Name 5 items you might pack for a trip, then alphabetize them.

Category Tasks

1. Timed Category Burst

Pick one category. Name as many items as you can in 30 seconds using a strong, clear voice.

2. Alternating Categories with Partner

Pick two categories. Name an item from Category A. Then, name an item from Category B. Continue alternating for as long as you can.

3. Alphabet Relay

Pick one category.

Name items starting with A, then B, then C, etc.

4. Clap-Slap Alternating Task

Choose one category.

Clap hands → name one item.

Slap thighs → name next item.

Continue alternating movements while naming.

5. Clap-Slap Spelling Task

Choose one category. Spell the items out loud.

Clap hands → Consonants

Slap thighs → Vowels

Continue alternating movements while naming.

1. Animals
2. Fruits
3. Vegetables
4. Foods
5. Clothing
6. Furniture
7. Kitchen items
8. Tools
9. Transportation
10. Jobs
11. Hobbies
12. Sports
13. Emotions
14. Things in a bathroom
15. Things in a bedroom
16. Things you pack for a trip
17. Medications
18. Things that are red
19. Things that are cold
20. Things that are loud

Finger Tapping & Automatics

Motor Task: Tap fingers in sequence (thumb to each finger)

Speech Task: Say automatics using your LOUD, STRONG, and CLEAR voice.

- Days of the Week
- Months of the Year
- Counting 1-10
- Counting 10-1
- My name is...
- I live at...

CHALLENGE TASK

- Tap every syllable
- Alternate hands on each word
- Alternate counting and words:
 - LEFT hand= NUMBERS
 - RIGHT hand= WORDS

Clap/Snap Phrases

Motor Task: Alternating clapping and snapping

Speech Task: Say the following phrases using your LOUD, CLEAR, & STRONG speech

Good Morning.

Let's Go.

Call me back.

I need help.

What time is it?

See you later.

It's too cold.

I love you.

Please sit down.

I'm fine.

It's very hot.

Fry the bacon.

Am I on time?

I didnt know.

Can we go now.

You should say so.

Answer the phone.

When do we go?

Do it again.

Feed the dog.

What's for dinner?

How was your day?

Could you get thar?

How's the weather.

Excuse me please.

CHALLENGE TASK

Alternate the clap/slap pattern

- Question=Clap
- Statement=Slap

Stomp & Word Emphasis

Motor Task: Stomp your foot on the bolded word.

Speech Task: Say the following, with EMPHASIS on the bolded word.

I **NEED** my keys

I want to **GO** home

WE are meeting at the park

I need **MY** keys

We are meeting at the **PARK**

I want to go home

He is calling **ME**

I **CAN** do it

HE is calling me

I can **DO** it

Sorting Tasks

Level 1: Basic Sort + Recall Target

1. Choose one “target card” (example: 7 of Hearts).
2. Sort cards by number.
3. Each time you see the target number (any 7), say: “I found a seven.”

Level 2: Sort by Suit + Category Naming

Sort cards into four piles by suit.

Each time you place a Heart, name one fruit.

Each time you place a Club, name one animal.

Challenge: once you finish the sort, can you recall all of your category members?

Level 3: Odd / Even Challenge

Place cards face up one at a time.

If the card is:

- Odd number → Say the color (Red or Black).
- Even number OR face card → Say the suit (Hearts, Clubs, etc.).
 - Example: 7 → “Red.” 8 → “Spades.”

Level 4: Memory Load Card Challenge

Before starting, choose:

- One target number (ex: 5)
- One target suit (ex: Diamonds)

While sorting the cards by color:

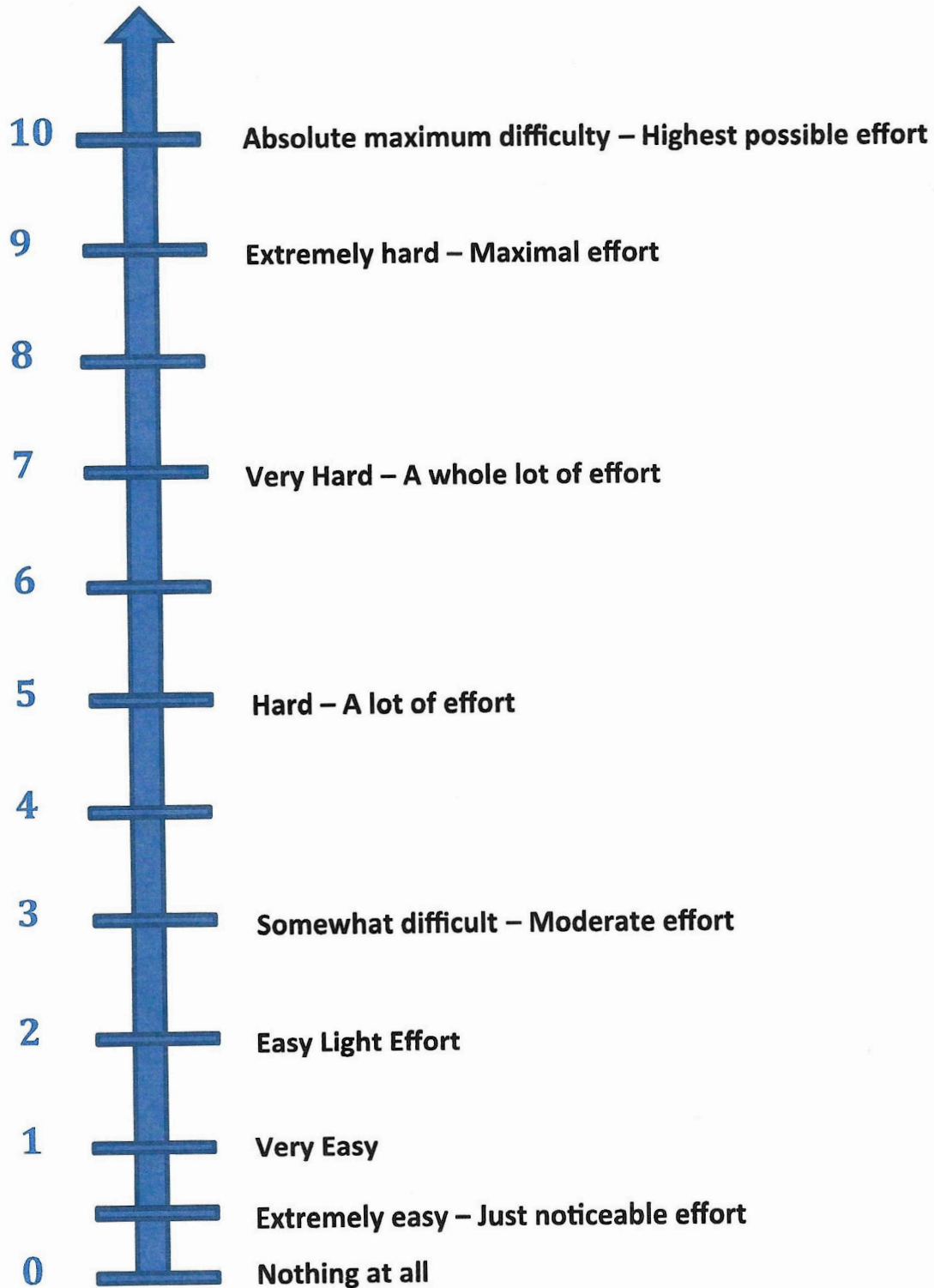
- When you see the number 5 → say the number loudly.
- When you see the suit → name a category item.

ADDITIONAL RESOURCES



- *Perceived Effort Scale*
- *PD Motor Systems*
- *Effortful Swallow*
- *Semi-Occluded Vocal Tract Exercises*
- *Expiratory Muscle Strength Training*
- *Articles from the blog*

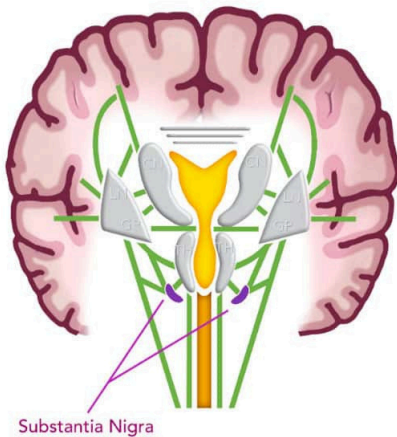
Perceived Loudness Effort Scale



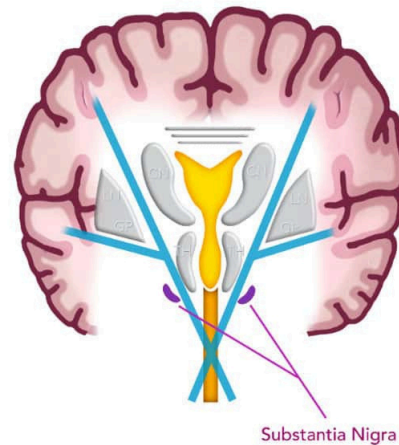
Modified from Borg, E., 1982; Borg, G.A., 2006

Motor Systems

Extrapyramidal System *Automatic System*



Pyramidal System *Intentional System*



Extrapyramidal System Automatic Movements

Responsible for:

- Automatic movement regulation
- Movement scaling (how big or small a movement is)
- Initiating movement
- Smoothness and coordination
- Habitual or automatic motor patterns

Pyramidal System Intentional Movements

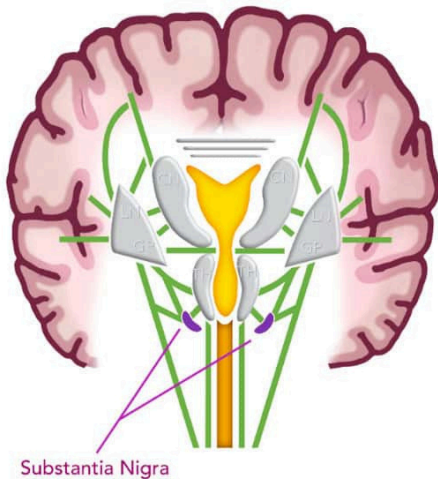
Responsible for:

- Voluntary, purposeful movement
- Direct motor control
- Conscious motor planning

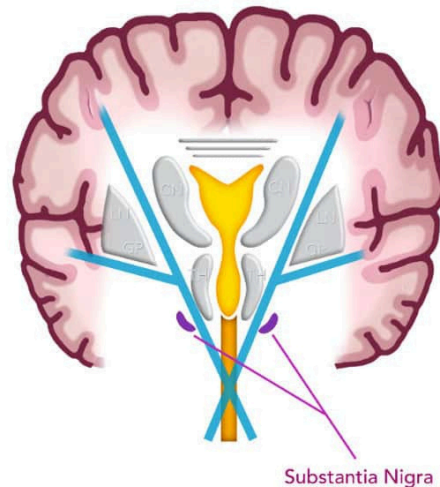
When you decide to move your arm or speak intentionally, this system is heavily involved.

Parkinson's disease primarily affects this system due to dopamine depletion. This disrupts automatic movement regulation.

Extrapyramidal System *Automatic System*



Pyramidal System *Intentional System*



Speech is both voluntary and automatic.

In Parkinson's disease:

- The extrapyramidal system (automatic control) is impaired.
- Movements become smaller (hypokinesia).
- Voice becomes softer (hypophonia).
- The person often perceives their voice as normal even when it is quiet.

However, the pyramidal system (voluntary control) is relatively preserved.

Voice Therapy shift speech production from the impaired automatic (dopamine-dependent) system to the more intact voluntary cortical system.

What does it mean to use LOUD & CLEAR speech?

Because the automatic speech system is affected in Parkinson's disease, individuals often need to rely more on the voluntary motor system to produce clear speech. This means speaking may require conscious attention and purposeful effort (i.e., LOUD & CLEAR speech).

Speaking with purpose means:

- Putting effort into every word
- Staying focused on your speech
- Giving your full attention to speech
- Being aware of how you speak
- Managing your speech deliberately
- Speaking with purpose and control

Effortful Swallow Exercise

Why This Exercise Helps

- Improves tongue base strength
 - Increases throat (pharyngeal) muscle contraction
 - Helps reduce residue after swallowing
 - May improve overall swallowing safety and efficiency
-

How to Perform the Effortful Swallow

1. Sit upright with good posture.
 2. Take a normal breath in.
 3. Gather enough saliva to swallow (or a small sip of liquid if directed by your clinician).
 4. Swallow hard – squeeze all of your swallowing muscles as if you are trying to swallow a large pill. You may also try pulling and swallowing at the same time.
 5. Imagine “swallowing a golf ball.”
 6. Relax and breathe normally before repeating.
 7. Repeat ____x
-

What It Should Feel Like

- A stronger-than-normal swallow
- Firm tongue pressure against the roof of the mouth
- Increased throat muscle engagement (like you are swallowing something very large)

It should not feel painful or cause coughing that continues. Mild effort or muscle fatigue is expected if done correctly.

Semi-Occluded Vocal Tract Exercises

What Is This Exercise?

Semi-occluded vocal tract (SOVT) exercises use a straw to partially block (occlude) airflow while you use your voice. This creates gentle back pressure that **helps your vocal folds vibrate more efficiently and with less strain.**

Straw phonation is commonly used to:

- Reduce vocal tension
- Improve voice quality
- Increase vocal endurance
- Warm up the voice safely
- Support healing after vocal strain

What You Need

1. A regular drinking straw (not extra-wide unless instructed)
2. Optional: A cup of water (if completing water-resistance version)

How to Perform Straw Phonation (With and Without Water)

- Place the straw between your lips with a good seal.
- Take a relaxed breath in.
- Blow air to create steady bubbles.
- Progress to gently humming while keeping bubbles steady.
- The bubbles should be consistent and non-explosive.
- Continue for 3–5 seconds in a steady, comfortable pitch.
- Progress the exercise to pitch glides up and down, hills, or even singing a song.
- You may also remove the straw from the water, continuing to hum with sensation of vibration around your lips.
- Continue for up to 3 minutes.

Helpful Tips

- Keep your shoulders relaxed.
- Avoid pushing or forcing sound.
- Keep volume at a comfortable level.
- Focus on smooth, easy voice production.

Expiratory Muscle Strength Training

Expiratory Muscle Strength Training (EMST) is a device-based therapy that strengthens the muscles used to breathe out forcefully. These muscles are important for:

- Strong coughing
- Airway protection
- Breath support for speech
- Vocal intensity

In Parkinson's disease, reduced respiratory drive and muscle activation can contribute to soft voice and weak cough. EMST targets the respiratory system to improve these functions.

It does not replace loudness-based therapy (like LSVT LOUD or SPEAK OUT!) but complements it by improving the respiratory foundation underneath voice.

Suggested Devices (Available Online)

- Power Breathe EX-1 Light Resistance** (preferred device for ease of use and cleaning; www.powerbreathe.com)
 - EMST 75 (www.emst150.com)
 - The Breather (available on Amazon)
-

What It Should Feel Like

- A firm, controlled exhale against resistance
- Abdominal engagement (like gently tightening core muscles)
- No dizziness
- No throat strain

The effort should come from the breath muscles — not squeezing the throat.

FROM THE BLOG

Your Brain Needs Exercise Too: Understanding How Parkinson's Disease Affects Thinking

Amanda Smith, M.Ed., CCC-SLP

If you or a loved one has Parkinson's disease, you likely know about symptoms like tremors and stiffness. But there's another side to Parkinson's that's less discussed: changes in thinking and memory.

What Are Cognitive Changes?

Cognitive changes are shifts in how your brain handles information. These can include:

- Memory - remembering names, appointments, or where you put your keys
- Attention - staying focused during conversations or activities
- Problem-solving - figuring out solutions when things don't go as planned
- Language - finding the right words when you're talking
- Visual skills - understanding what you see and how things relate in space

These changes are common in Parkinson's disease. Research shows that up to 8 out of 10 people with Parkinson's will notice some changes in thinking over time.

You're Not Alone

It's normal to feel embarrassed or worried when you notice these changes. You might wonder, "Am I losing my mind?" or "Is this just aging?" These feelings make sense.

Cognitive changes in Parkinson's are different from those of normal aging. They happen because the brain areas that control movement also affect thinking and memory. The good news is, there are ways to help.

Why Cognitive Changes Happen

Parkinson's disease lowers a brain chemical called dopamine. Dopamine supports both movement and cognition. When there's less dopamine, it can affect:

- How quickly you process information
- Your ability to multitask
- Planning and organizing activities
- Finding words when you speak
- Remembering recent events

Imagine your brain as a computer that runs a bit slower. The information is still there, but it may take longer to find it.

The Good News: Your Brain Can Be Trained

Just as physical exercise keeps your muscles strong, brain exercises can help keep your thinking skills sharp. Scientists call this “cognitive training,” and research shows it works.

The key is to do exercises that work different parts of your brain:

- Memory games that help you remember lists or sequences
- Word puzzles that keep your language skills sharp
- Problem-solving activities that challenge your planning abilities
- Attention exercises that help you focus on multiple things at once

What Makes Brain Training Effective?

Not all brain exercises work the same way. The best programs:

- Target multiple thinking skills - not just one area like memory.
- Use real-world activities that connect to your daily life.
- Include social interaction, since working with others is better than working alone.
- Are led by experts who understand how the brain works.
- Offer regular practice, because consistency is important for results.

Simple Ways to Exercise Your Brain at Home

If you're considering formal brain training, here are some simple ways to begin:

- Read aloud, which exercises both language and attention.
- Play card games, which challenge your memory and strategy.
- Cook new recipes to use your planning and sequencing skills.
- Have conversations, since social interaction is a great exercise for your brain.

When to Seek Professional Help

Consider getting professional cognitive training if you:

- Feel frustrated by thinking changes.
- Want to be proactive about brain health.
- Notice family members are concerned.
- Feel less confident in daily activities.
- Want to learn specific strategies for memory or attention.

FROM THE BLOG

Parkinson's Disease and the Gut-Brain Connection: What It Means For You

Amanda Smith, M.Ed., CCC-SLP

Parkinson's disease is often described as a movement disorder, but many people quickly learn it is much more than tremor and stiffness. It can affect mood, thinking, sleep, swallowing, and even how the gut works. Over the last decade, researchers have been paying close attention to the "gut-brain connection" in Parkinson's disease, and their findings are beginning to change how clinicians think about the condition. [ninds.nih+3](#)

Understanding Parkinson's Beyond Movement

Parkinson's disease occurs when certain brain cells that help control movement begin to break down over time, leading to symptoms such as slowness, stiffness, and resting tremor. Yet many people with Parkinson's also live with problems that do not seem, at first glance, to be "movement related," such as constipation, urinary changes, sleep problems, and changes in voice or swallowing. These non-motor symptoms can appear early and affect daily life just as much as the more visible motor changes. [clevelandclinic+2](#)

The idea that Parkinson's affects the whole body, and not just the movement centers of the brain, has opened the door to new questions about where the disease begins and how it might be detected earlier. [medicine.yale](#)

What Is the Gut-Brain Connection?

The gut-brain connection refers to the constant communication between the digestive system (stomach and intestines) and the brain. This conversation happens through several routes: nerves that run between the gut and brain, chemical messengers in the blood, and the immune system.

One of the major nerve pathways is the vagus nerve, which carries signals both from the gut to the brain and from the brain back to the gut. [neurotorium+2](#)

Because of this two-way communication, changes in gut function can influence how the brain works, and changes in the brain can alter gut function. In Parkinson's disease, this connection appears to be especially important. [clevelandclinic+1](#)

Gut Symptoms Often Come Early

An important observation in Parkinson's disease is that gut symptoms, particularly constipation, frequently appear many years before a diagnosis is made. People who later develop Parkinson's often report longstanding bowel difficulties or other digestive problems when their medical histories are carefully reviewed. [nature+1](#)

This does not mean that everyone with constipation will develop Parkinson's, nor that constipation alone is enough to diagnose the disease. However, the pattern has led researchers to consider whether Parkinson's-related changes may start in the gut in some people and only later appear in brain areas that control movement. [michaeljfox+2](#)

Gut Bacteria and Parkinson's Disease

Another piece of the puzzle comes from the trillions of bacteria that live in the intestines, known as the gut microbiome. These bacteria help digest food, produce vitamins and other useful chemicals, and interact with the immune system. Studies comparing people with Parkinson's disease to people without Parkinson's have found that, on average, their gut bacteria look different. [pmc.ncbi.nlm.nih+2](#)

In many studies, certain groups of bacteria that are thought to support a healthy gut environment are reduced, while others that may promote inflammation or produce potentially harmful byproducts are increased. It is not yet clear whether these changes are a cause of Parkinson's, a result of the disease and its treatments, or a mix of both. However, the consistent differences suggest that the microbiome is part of the broader gut–brain story in Parkinson's. [Cndlifesciences+3](#)

Why Gut Health Matters for People with Parkinson's

For people living with Parkinson's disease, gut health matters for both comfort and overall well-being. Constipation, bloating, and abdominal discomfort can be painful, frustrating, and can interfere with taking medications on time and absorbing them properly. Some Parkinson's medicines can also slow the gut further, creating a cycle that needs careful management. [mayoclinic+1](#)

Simple steps, such as adjusting fluid intake, increasing dietary fiber when appropriate, and using medications for constipation under medical guidance, can make a meaningful difference. Discussing bowel habits with a healthcare provider—though sometimes uncomfortable—is a key part of managing Parkinson's comprehensively. [parkinson+2](#)

Emerging Research and Future Treatments

Researchers are actively exploring how to use the gut–brain connection to improve Parkinson’s care. Several broad directions are under study:

- Diet and fiber: Studies are looking at whether specific dietary patterns, including higher fiber intake, can support healthier gut bacteria and improve symptoms such as constipation. [.pmc.ncbi.nlm.nih+1](#)
- Probiotics and related therapies: Some early research suggests that probiotics (supplements containing selected “beneficial” bacteria) may help with constipation and quality of life in Parkinson’s, although results are still mixed and these products do not replace standard medications. [pmc.ncbi.nlm.nih](#)
- Microbiome-targeted approaches: More experimental approaches, such as changing the gut microbiome more directly, are being tested in clinical trials but are not part of routine care. [neurotorium+1](#)

These areas are promising, but they remain in development. For now, the mainstays of Parkinson’s treatment continue to be medications and, in some cases, procedures like deep brain stimulation that act directly on brain circuits, with gut-focused strategies used as supportive care. [ninds.nih+1](#)

Speech, Swallowing, and the Gut–Brain Story

The same nervous system that links the gut and the brain also supports other vital functions, including speech and swallowing. In Parkinson’s disease, changes in brain signaling can affect the muscles of the face, tongue, throat, and chest, leading to a softer voice, unclear speech, and difficulty swallowing. These changes can reduce safety during meals and make it harder to stay socially connected. [Med.stanford+1](#)

Recent animal research has found that certain mouth bacteria can move into the gut, create chemicals, and may contribute to Parkinson’s-related changes in the brain. This means the mouth, gut, and brain are more connected than we once thought. Because the mouth is also where swallowing begins, problems with chewing, saliva control, and swallowing in Parkinson’s can affect not only safety at meals but also oral health.

Speech-language pathologists play an important role here: swallow-focused speech therapy helps people eat and drink more safely, protect the airway, and support better oral care, which may indirectly support overall health along this mouth–gut–brain pathway.

Swallowing exercises can improve swallowing safety through muscle strengthening and mealtime strategies can improve quality of life and swallowing safety. Starting speech therapy early - before speech and swallowing problems become severe - can help preserve function and maintain quality of life. [michaeljfox+1](#)

What You Can Do Now

For someone living with Parkinson's disease, the gut-brain connection is not only a research topic; it has day-to-day implications.

Practical steps include:

- Telling your neurologist or primary care provider about constipation, stomach pain, or changes in bowel habits, even if they seem minor.
- Asking whether changes in diet, fluid intake, or medications could help manage gut symptoms safely in your situation. [mayoclinic+1](#)
- Considering early enrollment in a Parkinson's-focused speech program to protect communication and swallowing over time.
- Considering an early speech and swallowing evaluation, even if changes are mild.

Researchers around the world continue to study how the gut and brain interact in Parkinson's disease, with the goal of detecting the condition earlier and developing new therapies that treat the whole person, not just movement symptoms. While many details remain to be clarified, one message is already clear: **caring for gut health, communication, and swallowing is an important part of living as well as possible with Parkinson's disease.**

For a full list of resources and links, use the QR code below to visit the website:



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