



## **Advanced Parkinson's Therapies Beyond Pills**

### **Understanding Non-Oral Treatment Options—and Who They May Be Right For**

As Parkinson's disease progresses, many individuals find that **oral medications alone no longer provide consistent symptom control**. Wearing-off, unpredictable "off" periods, dyskinesia, tremor, and delayed medication response can significantly affect daily life—even when medications are taken exactly as prescribed.

When this happens, **advanced (non-oral) therapies** may be considered. These treatments are designed to improve **stability, predictability, and quality of life** by delivering therapy more continuously or more precisely.

Through the **Wisconsin Parkinson Association**, individuals are encouraged to learn about *all* available options so decisions can be made collaboratively, thoughtfully, and without pressure.

**Needing advanced therapy does not mean Parkinson's is "worse."  
It means your treatment needs have evolved.**

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### **What Are Non-Oral Advanced Therapies?**

Non-oral advanced therapies are used when:

- Oral medications no longer last long enough
- "Off" periods become frequent or unpredictable
- Dyskinesia interferes with function
- Tremor remains disabling despite medication
- Medication absorption becomes unreliable

These therapies **do not replace levodopa**—they refine how symptoms are treated and how consistently relief is delivered.

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## **Who May Be a Candidate for Advanced Therapy?**

Advanced therapies may be appropriate for individuals who:

- Respond well to levodopa but for too short a time
- Experience significant motor fluctuations
- Have tremor not adequately controlled with medication
- Have symptoms interfering with daily life
- Are medically stable for device-based or procedural therapy

Cognition, overall health, lifestyle, support system, and personal goals are all essential parts of the decision.

**There is no single “right” therapy—only the best fit for your symptoms and your life.**

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## **Categories of Non-Oral Advanced Therapies**

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### **Deep Brain Stimulation (DBS)**

#### **What it is**

A surgical therapy in which electrodes are implanted into targeted brain regions to modulate abnormal electrical signaling related to Parkinson’s symptoms.

#### **What it helps with**

- Tremor
- Rigidity
- Bradykinesia
- Motor fluctuations
- Dyskinesia (often by reducing medication needs)

#### **Who it may be right for**

- Good levodopa response
- Significant motor fluctuations or tremor
- Minimal cognitive impairment

- Willingness and ability to undergo brain surgery

DBS provides **continuous symptom control for treated symptoms** through **adjustable, reversible neuromodulation**.

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### **Levodopa-Carbidopa Intestinal Gel (LCIG / Duopa®)**

#### **What it is**

A gel form of levodopa delivered continuously into the small intestine through a portable pump.

#### **What it helps with**

- Severe wearing-off
- Unpredictable “off” periods
- Dyskinesia related to fluctuating medication levels

#### **Who it may be right for**

- Good levodopa response
  - Difficulty maintaining stable control with pills
  - Preference for medication-based therapy rather than brain surgery
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### **Subcutaneous Levodopa Infusion**

*(Vyalev™ – foslevodopa/foscarbidopa)*

#### **What it is**

A continuous under-the-skin levodopa infusion delivered via a wearable pump, without intestinal or brain surgery.

#### **What it helps with**

- Motor fluctuations
- Wearing-off
- Unpredictable “off” time

#### **Who it may be right for**

- Advanced Parkinson's with levodopa responsiveness
  - Poor or inconsistent oral absorption
  - Desire for continuous medication delivery without surgery
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## **Continuous Apomorphine Infusion**

*(Onapgo™)*

### **What it is**

A continuous subcutaneous infusion of apomorphine (a dopamine agonist) delivered via a wearable pump.

### **What it helps with**

- Frequent or severe “off” episodes
- Rapid symptom rescue and stabilization

### **Who it may be right for**

- Advanced Parkinson's with frequent disabling “off” time
  - Individuals who respond to dopamine agonists
  - Those unable to tolerate or absorb oral medications
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## **Focused Ultrasound**

*(High-Intensity Focused Ultrasound / HIFU)*

### **What it is**

A non-invasive, incision-free procedure that uses MRI-guided ultrasound to create a small, permanent lesion in a brain region involved in abnormal movement signaling. The procedure is performed while the individual is awake.

### **What it helps with**

- Medication-refractory tremor
- Tremor-dominant Parkinson's disease

Focused ultrasound provides **continuous symptom control for the treated symptom** through a **permanent, targeted lesion**.

## Who it may be right for

- Tremor-dominant Parkinson's disease
- Tremor not adequately controlled with medication
- Individuals who are not candidates for—or prefer to avoid—implanted devices
- Those able to tolerate MRI-based procedures

## Important considerations

- Typically treats **one side of the brain**
- Effects are immediate and continuous
- Not adjustable or reversible
- Does not treat global motor fluctuations or non-motor symptoms

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## How These Advanced Therapies Compare (Big Picture)

| Feature / Goal                                   | DBS | LCIG<br>(Duopa®) | Vyalev™ | Onapgo™ | Focused<br>Ultrasound |
|--------------------------------------------------|-----|------------------|---------|---------|-----------------------|
| Continuous medication delivery                   | ✗   | ✓                | ✓       | ✓       | ✗                     |
| Continuous symptom control (for treated symptom) | ✓   | ✓                | ✓       | ✓       | ✓                     |
| Tremor control                                   | ✓   | ✓                | ✓       | ✓       | ✓                     |
| Brain surgery required                           | ✓   | ✗                | ✗       | ✗       | ✗                     |
| Implanted device or pump                         | ✓   | ✓                | ✓       | ✓       | ✗                     |
| Adjustable over time                             | ✓   | ✓                | ✓       | ✓       | ✗                     |
| Reversible                                       | ✓   | ✓                | ✓       | ✓       | ✗                     |

Both focused ultrasound and deep brain stimulation provide continuous symptom control for treated symptoms without relying on continuous medication delivery.

Focused ultrasound achieves this through a permanent, targeted lesion, whereas deep

brain stimulation provides adjustable and reversible neuromodulation through implanted electrodes.

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### **Common Myths About Advanced Therapies**

- “This is only for late-stage Parkinson’s” → **Not true**
  - “I failed medication” → **Not true**
  - “I have to decide right now” → **You have time**
  - “One option fits everyone” → **Absolutely not**
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### **The Evaluation Process**

Considering advanced therapy usually includes:

- Review of medication response patterns
- Symptom tracking
- Movement disorder specialist evaluation
- Cognitive screening
- Imaging or therapy trials (depending on option)
- Shared decision-making

This is a **deliberate process**, not a rushed decision.

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### **A Reassuring Perspective**

Advanced therapies exist to **restore stability, reduce unpredictability, and protect quality of life.**

**When treatment becomes more advanced,  
it’s because care is becoming more personalized—not because hope is running out.**

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