

A stylized, light blue illustration of a human brain and a hand, set against a dark blue background. The brain is shown in profile, with its gyri and sulci clearly defined. The hand is positioned below the brain, with fingers slightly curled. The overall style is clean and modern, using white and light blue lines on a dark blue background.

Medication Support Groups for Parkinson Disease

Session #2 Medication Management of Motor
Fluctuations and Dyskinesias | March 9, 2024 | 10-11 AM



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Introductions

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Session Outline

- Educational session
- Q&A
- Debrief
- Survey



Learning Objectives

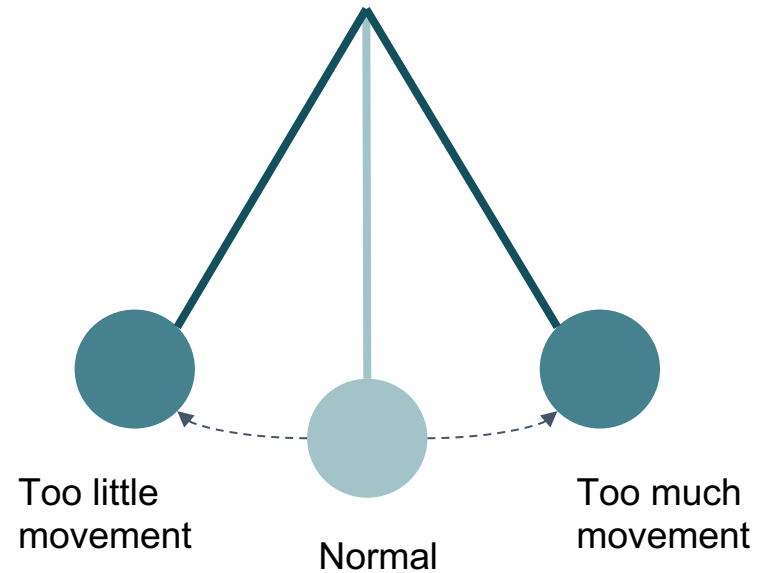
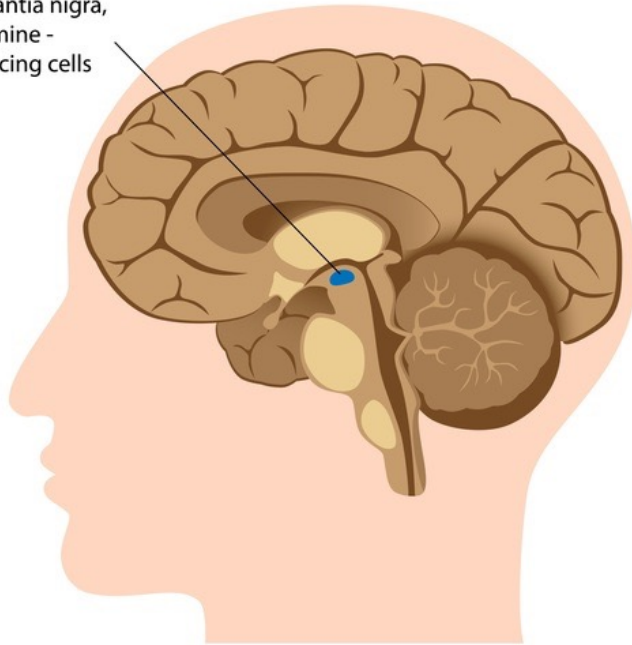
- Describe **motor fluctuations** in PD, including wearing off, on/off, and freezing of gait
- Describe **dyskinesias** in PD, including peak-dose, diphasic, and off-period dystonia
- Discuss three general **medication management strategies** for motor fluctuations and dyskinesias in PD



Recap from SESSION 1

Parkinson's disease

Substantia nigra,
dopamine -
producing cells



Chronic, progressive, neurodegenerative disease



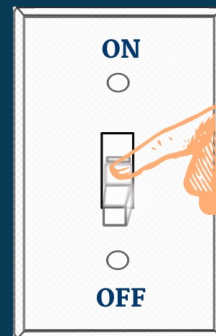
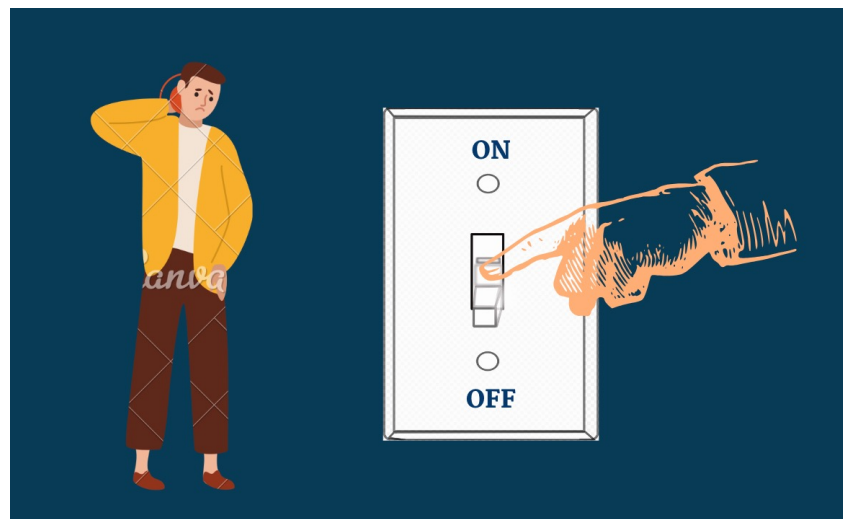
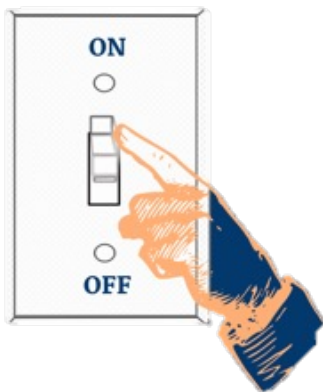
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What are Motor Fluctuations?

MOTOR FLUCTUATIONS

- Describes changes in one's ability to move
- Periods with good symptom control are referred to as “on” time and periods with poor symptom control are referred to as “off” time



What causes Motor Fluctuations?

- Motor fluctuations are a result of **disease progression**
 - As PD progresses, the brain's ability to store and release dopamine decreases
 - As a result, medications that once worked well to control PD symptoms may not feel as effective anymore



Types of Motor Fluctuations

Wearing off	<p>A decrease in the medication's effectiveness near the end of one's dosing period.</p> <p>Usually the first motor fluctuation PD patients experience.</p>
On/Off	<p>When one's medication response fluctuates between periods of good control and periods of less control.</p> <p>Associated with advanced disease.</p>
Delayed or no "on"	<p>A slow or absent response after taking a dose of medication.</p>
Freezing of Gait	<p>Sudden but temporary inability to move one's feet forward, despite trying to walk.</p>



What are Dyskinesias?

DYSKINESIAS

- Describes involuntary writhing or dance-like movements of the arms, legs, or trunk
- Result of TOO much dopamine



What causes Dyskinesias?

- Dyskinesias are a **side effect** of some PD medications
 - They are most common with levodopa but can happen with any PD medication that increases dopamine

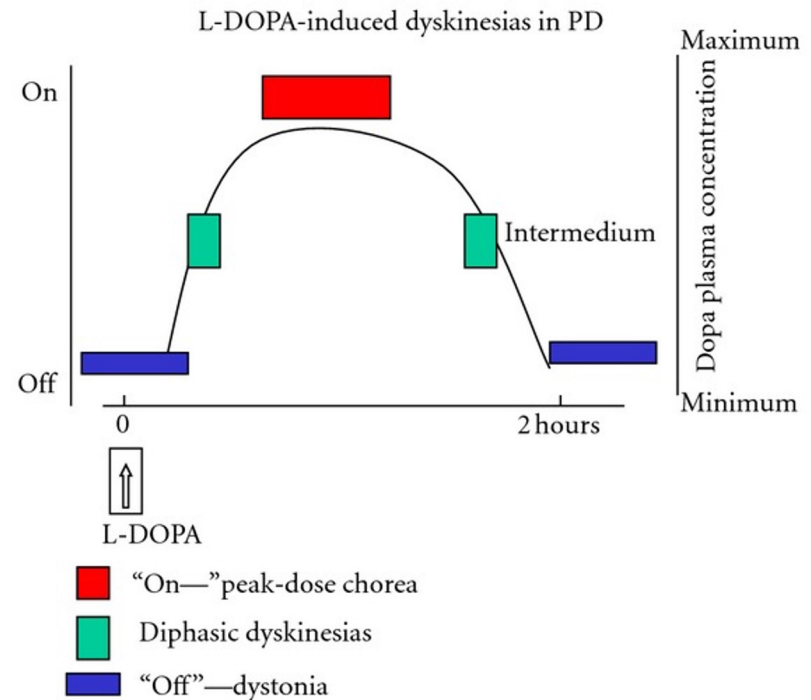


Types of Dyskinesias

Peak-dose dyskinesia

Diphasic dyskinesia

Off-period dystonia



Types of Dyskinesias

Peak-dose dyskinesia

- Sudden, unwanted, writhing movements affecting the limbs, head, face, or trunk
- May increase risk of falling
- Usually occurs around 1 hour after taking L-DOPA

Diphasic dyskinesia

- Describes two occurrences of dyskinesia with each dose
- Less common compared to peak-dose dyskinesia

Off-period dystonia

- Unwanted, sometimes painful, muscle contractions
- Usually occurs in the calf muscle, affecting the feet
- Commonly experienced in “off-phase”



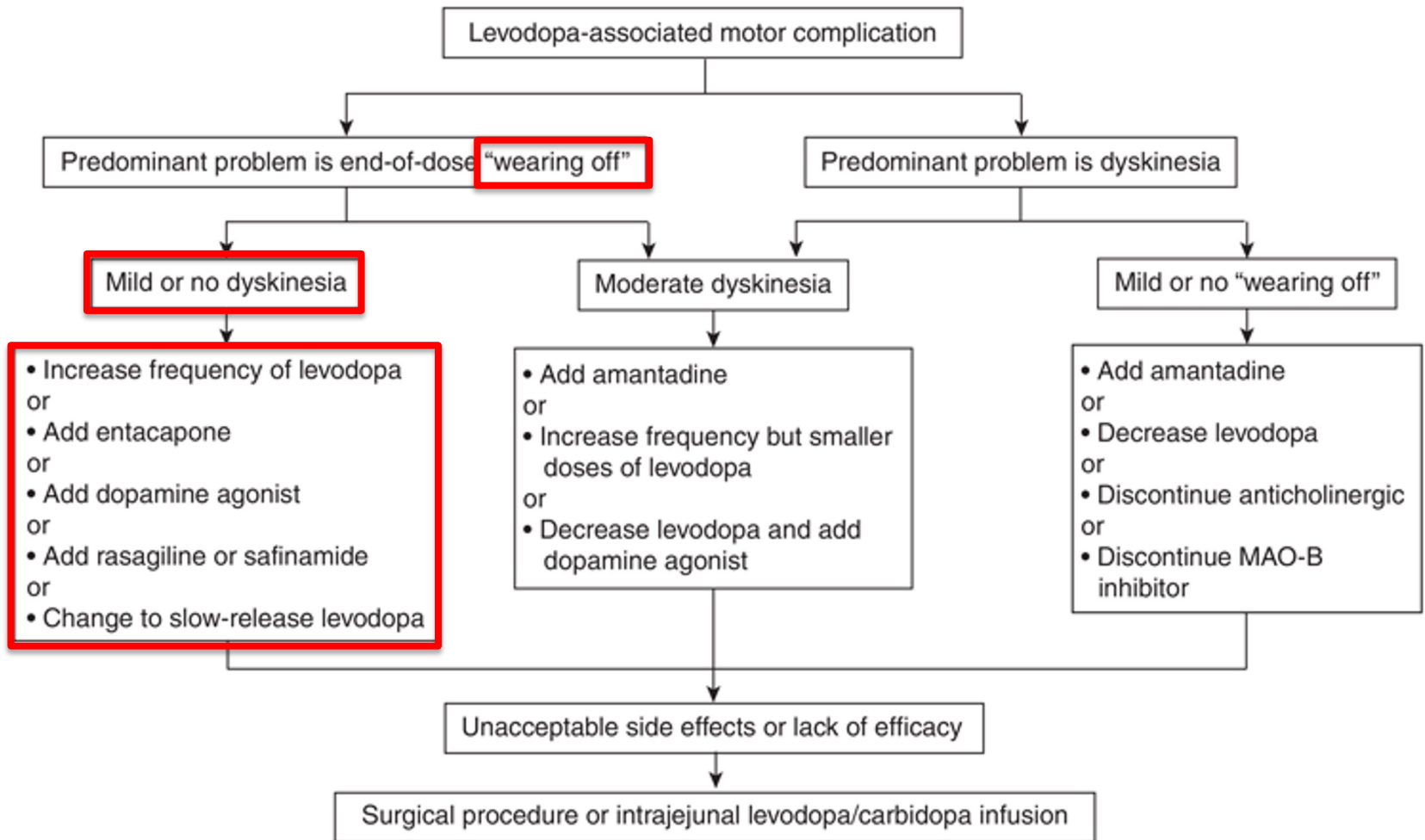
How to manage with Medications?

Your healthcare team may suggest one or more of the following:

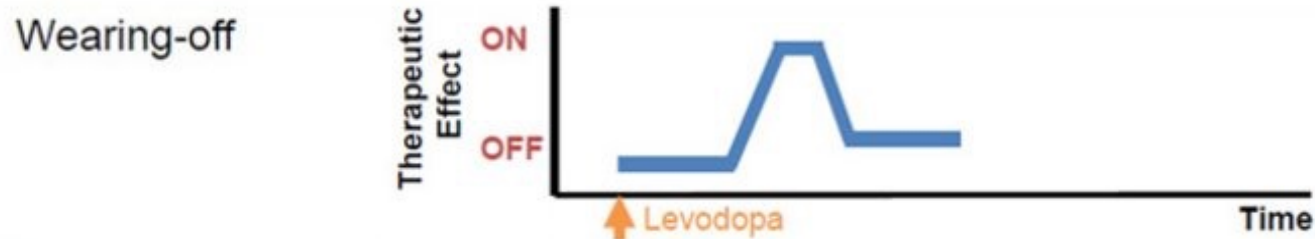
1. Change the dose of your medication
2. Change the frequency of your medication
3. Add or remove medications

Medication management is a balancing act: The goal is to get a good effect from the medication while minimizing side effects like dyskinesias

Wearing-Off Strategies



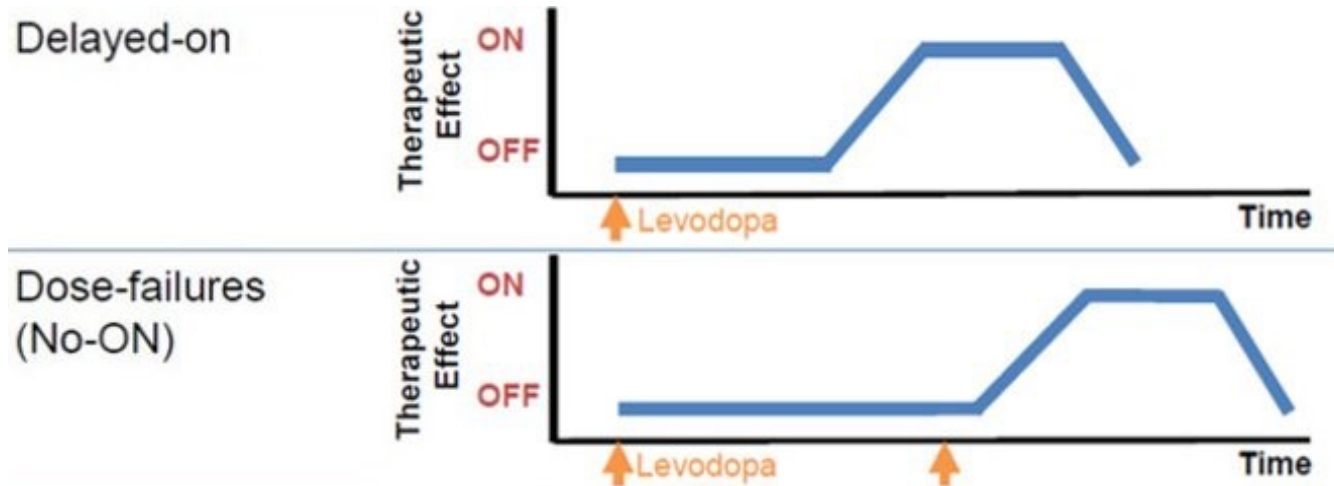
WEARING-OFF STRATEGIES



- Space L-Dopa between meals with high dietary protein intake
 - 1 hour before or 2 hours after
- Increase frequency of L-Dopa
 - Give smaller doses more frequently or simply increase frequency
- Change to slow-release L-Dopa for nighttime symptoms
- Add another agent (reduce dose by 25% when adding to L-Dopa)
- Add apomorphine rescue



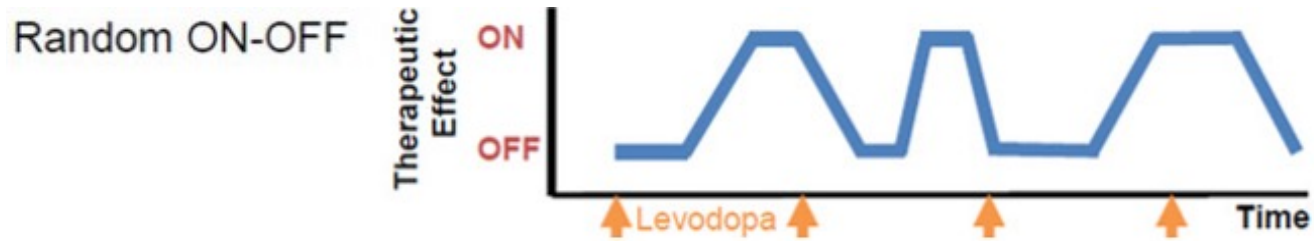
DELAYED OR NO “ON” STRATEGIES



- Space L-Dopa between meals with high dietary protein intake
 - Protein decreases effects of L-dopa
 - Recommended daily protein intake is 0.8 g/kg/day
- Prevent “wearing off” and schedule L-Dopa earlier before expected “off” period
- Change CR to IR L-Dopa
- Add apomorphine rescue



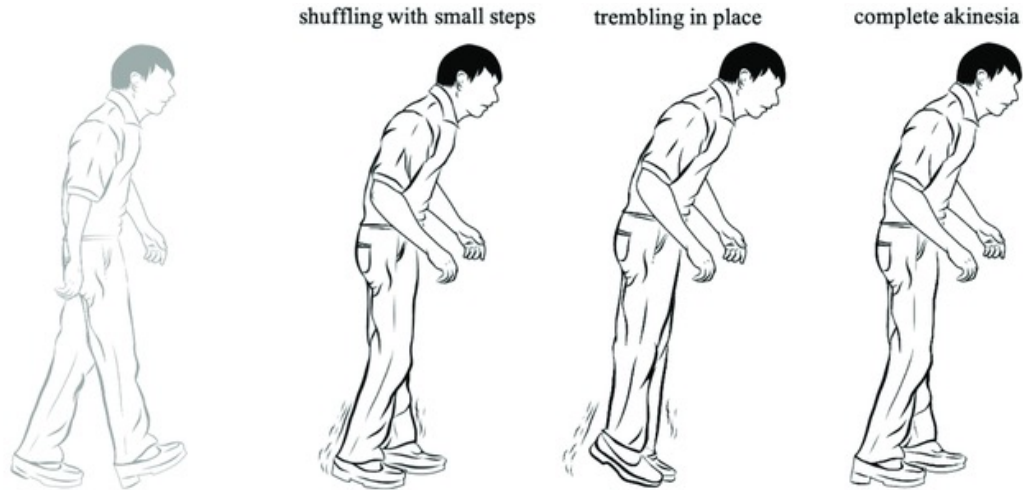
ON-OFF STRATEGIES



- Space L-Dopa between meals with high dietary protein intake
- Change CR to IR L-Dopa due to erratic absorption
- Adjust L-Dopa schedule to provide better coverage
- Add another agent
- Add apomorphine rescue



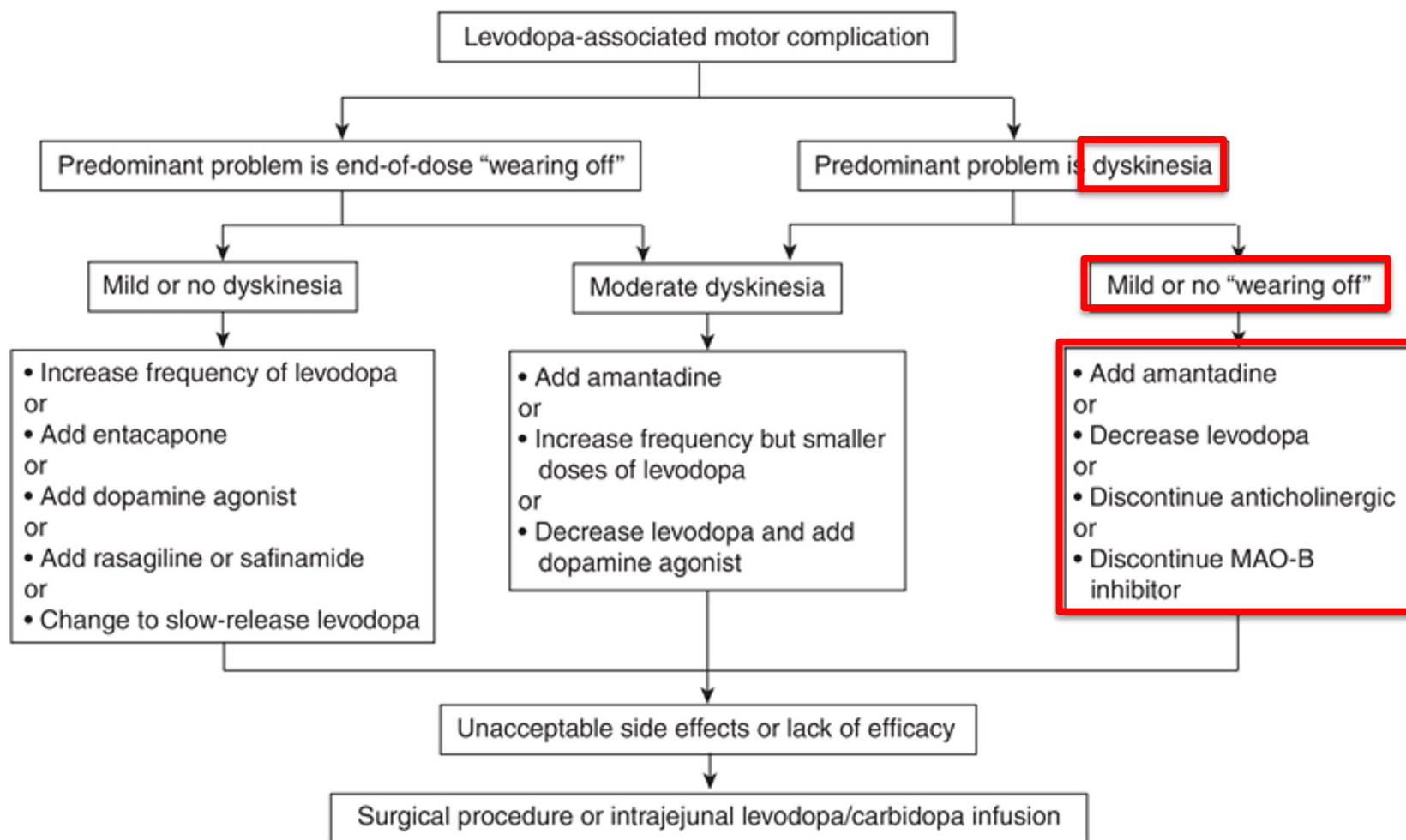
FREEZING OF GAIT STRATEGIES



- Generally unresponsive to drug therapy
- Try moving another body part instead, then restart
- Shift weight from side-to-side, or march in place
- Visual or auditory cueing – visualize objects on the ground to step over, hum a song
- Make wider turns, take larger steps

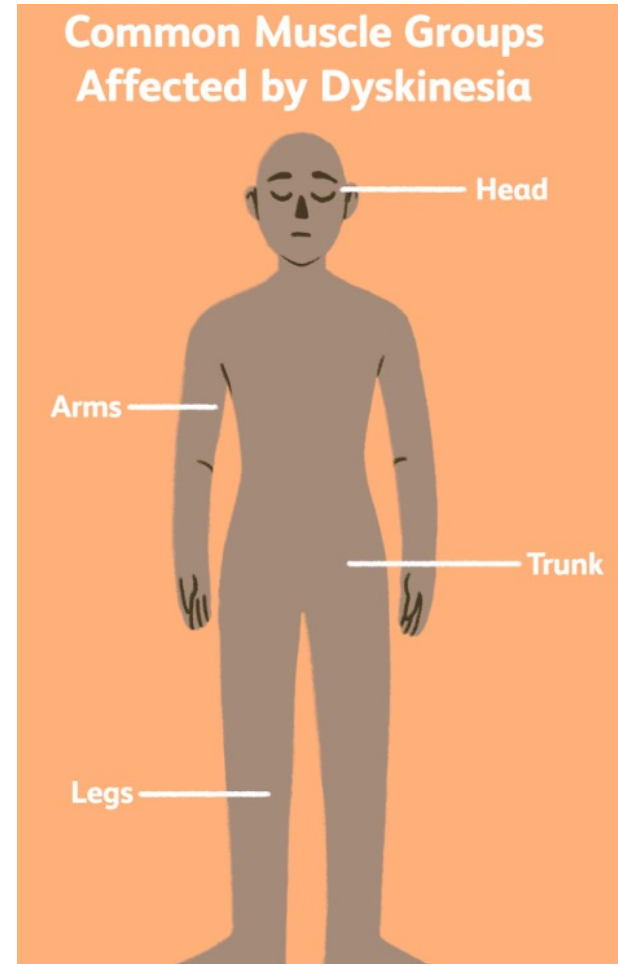


DYSKINESIA STRATEGIES



PEAK-DOSE DYSKINESIA STRATEGIES

- Lower levodopa dose
- Reduce or discontinue other medications (entacapone, MAO-B inhibitor)
- Lower levodopa dose while adding/increasing dopamine agonist
- Add amantadine



<https://www.verywellhealth.com/dystonia-vs-dyskinesia-in-parkinsons-2612238>

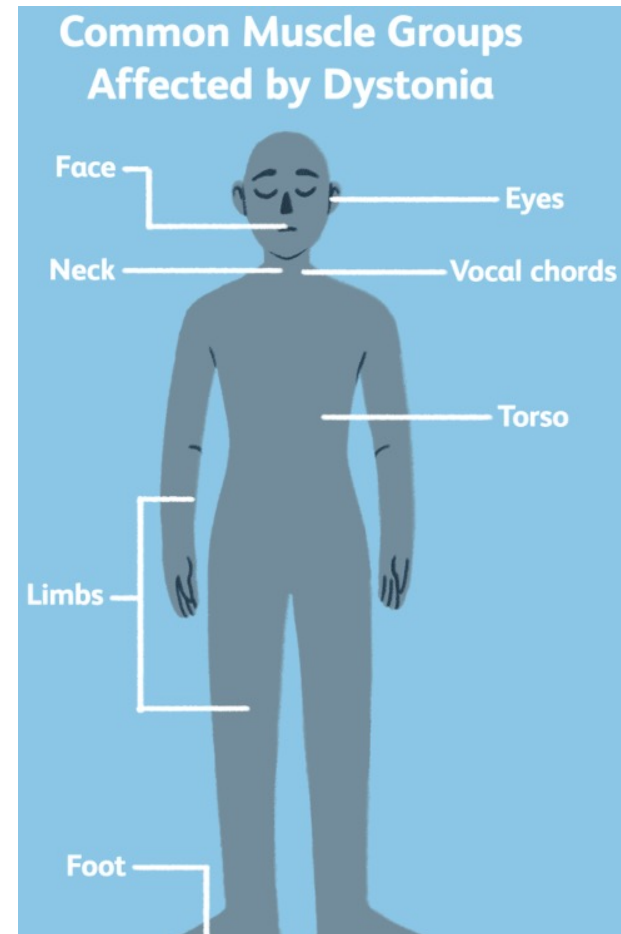


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OFF-PERIOD DYSTONIA STRATEGIES

- Treat like wearing-off
- For early morning dystonia, consider levodopa/carbidopa CR or dopamine agonist at night (due to their longer duration of action)



<https://www.verywellhealth.com/dystonia-vs-dyskinesia-in-parkinsons-2612238>



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BREAKOUT GROUPS

Q&A



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Parkinson Wellness Projects:

- <https://parkinsonwellness.ca/medication-management>

Parkinson Canada

Pharmacists Clinic, UBC



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SURVEY (OPTIONAL)

We would like to hear your experience participating in these medication support groups today!

Participation in this study will involve an online survey (~15 minutes) about your experience participating in the Online Medication Support Groups for Parkinson Disease. All data will be kept confidential and survey data will be anonymous.

If you participate, you will be entered into a raffle for a \$25 gift card. If you have any questions, please contact Larry Leung at larry.leung@ubc.ca.

https://ubc.ca1.qualtrics.com/jfe/form/SV_3klvBe6iBdf2bUq



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