

MEDICATION MANAGEMENT OF MOTOR FLUCTUATIONS AND DYSKINESIAS IN PARKINSON DISEASE (PD)

What are Motor Fluctuations and Dyskinesias?

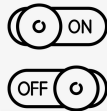
- Motor fluctuations are changes in one's ability to move due to the progression of PD. Periods with good symptom control are referred to as "on" time and periods with poor symptom control are referred to as "off" time
- Dyskinesias are involuntary writhing or dance-like movements of the arms, legs, or trunk and they are a side effect of PD medications (most commonly levodopa/carbidopa)

Types of Motor Fluctuations



Wearing off is when the effectiveness of your medication starts to decrease near the end of your dosing period; it is usually the first motor fluctuation PD patients experience

On/off describes when one's response to the medication fluctuates and has periods of good control and periods of less control



Delayed or no "on" describes when after taking a dose, the medication is either slower to respond or has no effect

Freezing of gait happens when one is suddenly unable to move their feet forwards, despite their efforts to walk



Types of Dyskinesia

Peak-dose dyskinesia: sudden, unwanted, and purposeless jerking or writhing movements that affect the limbs, head, face, or trunk and may increase risk of falling; it usually occurs around 1 hour after taking L-DOPA



Diphasic dyskinesia: happens when dyskinesia occurs twice during a dosing period

Off-period dystonia: describes unwanted muscle contractions; contractions commonly occur in the feet or toes; dystonia may be painful



Your healthcare team may make the following recommendations if you are experiencing **motor fluctuations**:

Wearing off: Increase the frequency of levodopa doses OR change to slow-release formulation of levodopa

On/Off: Change from slow-release to immediate-release levodopa OR adjust levodopa dosing schedule

Delayed or no "on": If taking slow-release levodopa, change to AND/OR add immediate-release levodopa

Freezing of gait: Try moving another body part instead then restart; shift weight from side-to-side or march in place; try to visualize objects on the ground to step over; hum a song; make wider turns; take larger steps

Meals high in protein can decrease the effectiveness of levodopa and lead to motor fluctuations; to avoid this, it may help to take levodopa either 1 hour before or 2 hours after high-protein meals

Your healthcare team may make the following recommendations if you are experiencing **dyskinesia**:



Peak-dose dyskinesia: Lower the dose of levodopa; add or increase the dose of a dopamine agonist; add amantadine

Diphasic dyskinesia: Take smaller doses of levodopa more frequently; avoid slow-release levodopa

Off-period dystonia Increase the frequency of levodopa doses OR change to slow-release levodopa; for early morning dystonia, may consider adding slow-release levodopa or a dopamine agonist at night; botox injections

Note: It is possible to experience both motor fluctuations and dyskinesias at the same time