

Considerations for Walking Programs for People with Parkinson Disease

Parkinson disease (PD) can affect someone's walking in many ways. A person may experience slower walking speed, shuffling steps, loss of balance, and freezing of gait (inability or slowness with initiating steps). Being inactive or sedentary can result in greater weakness and imbalance, further worsening walking ability. Early initiation of a walking program can help to slow the onset of walking problems and maintain optimal gait and balance ability. Depending on safety, walking programs can be done alone, with assistance of a care partner or trainer, and/or guided by a physical therapist (PT).

What is a walking program?

A walking program refers to time dedicated to improving walking. The dedicated time means that you are physically and mentally focused on improving an aspect of walking, such as speed, arm swing, or the size of your steps. The most recent evidence suggests that people with PD should dedicate at least 20 minutes to walking, 3-5x/week to achieve the greatest benefit. Walking over ground or on a treadmill can both be beneficial. Walking using a robotic device has also been shown to be helpful but is not widely available in clinics or at home.

What factors may impact whether or how to start a walking program?

- Pain: People with PD may have joint pain that limits walking ability or tolerance. Pain should be assessed by a PT to ensure that repeated walking does not worsen pain or cause injury.
- A PT should assess your balance and walking ability and provide specific recommendations on whether and how to start a walking program. Severe freezing of gait (FOG) or frequent falls or imbalance: A PT can determine if a device (walker, cane, trekking poles) or other movement strategies would optimize walking safety. If you have a history of falls or experience frequent losses of balance, an appropriate device may keep you safe and allow you to participate in more walking practice each day.



There are many ways to practice walking. Is one method superior, and what are considerations for each type?

****No single mode or method has been shown to be superior to another.****

Below are examples of walking practice that help people with PD.

Type of Walking Training	What It's Been Shown to Improve	Dose of practice that is recommended
<p>Treadmill</p> <ul style="list-style-type: none"> • Forward walking • Walking in different directions (backward and side-stepping) • With perturbations/sudden stops or starts • Combining with cognitive dual tasking (walking and talking/thinking at the same time) • Uphill and downhill 	<p>The most common improvements are often seen in:</p> <ul style="list-style-type: none"> • walking speed • step length • endurance • motor disease severity • balance <p>It may reduce falls, fear of falling, and freezing of gait</p>	<ul style="list-style-type: none"> • 3-5 days/week • 30-60 minutes
<p>Overground</p> <ul style="list-style-type: none"> • Forward walking • Walking in different directions (backward and side stepping) • With or without a walking device • Nordic walking with 1 or 2 trekking poles • Hills 	<p>The most common improvements are often seen in: walking speed and step length, endurance, disease severity, balance, walking capacity, overall mobility</p>	<ul style="list-style-type: none"> • 3-5 days/week • 20-60 minutes

What are ways to progress or challenge a walking program?

You could try to walk farther at a brisk pace and track how many steps you take per day by using a pedometer or fitness tracking watch. Walking on hills or inclines or on soft or uneven surfaces or walking and stepping in different directions, as long as you're stable, will challenge your balance.

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