**MEDICATIONS FOR PARKINSON’S**

There is not yet a cure for Parkinson’s disease, but symptoms can be treated with medication.

Should I start treating my symptoms with medication now or should I wait a while? Which medications are right for me? These are among the tough questions people with Parkinson’s disease are faced with. Your answers will be balanced among many other considerations.

**Medications to Avoid or Use with Caution**

Bottom of Form

Before making any decisions about treatment of Parkinson’s disease, you will want to learn about the different types of medications available for Parkinson’s disease and discuss the pros and cons of each with your physician. It may help to know that there is no “right” answer, and if you try something that doesn’t work for you, you can always adjust your plan.

**Levodopa: the most effective drug for treating Parkinson’s**

Levodopa, also known as L-DOPA, has long been, and continues to be, the most effective drug in treating [Parkinson’s disease symptoms](https://www.apdaparkinson.org/what-is-parkinsons/symptoms/). Most people with Parkinson’s disease will take this drug at some point. There are side effects that can occur with Levodopa including nausea, fatigue and orthostatic hypotension. Often these side effects can be successfully treated so that Levodopa can be tolerated better. In addition, as the disease progresses and the brain has less ability to produce and process dopamine, dyskinesias, or involuntary movements can develop from Levodopa.

**UNDERSTANDING THE LEVODOPA SIDE EFFECT**

If you have Parkinson’s disease, there is a good chance that you’ve been, or will be taking medication containing levodopa. Levodopa is administered in combination with the drug carbidopa (Sinemet® and its generic versions). This drug combination is considered standard treatment for Parkinson’s disease symptoms such as tremor, muscle stiffness, and slowness of movement. A side effect of long-term use of levodopa is dyskinesia. Below, you will learn about dyskinesia, what causes it, how it can be managed, and some basic coping strategies.

**What is dyskinesia?**

The features of dyskinesia include rapid, involuntary, and uncontrollable movements other than the [tremors typical of Parkinson’s](https://www.apdaparkinson.org/what-is-parkinsons/symptoms/tremor/). Dyskinesia can present as body swaying, writhing, twisting, squirming, arm flailing, fidgeting, or head bobbing. Dyskinesia initially appears on the side of the body most affected by Parkinson’s. Although it can be localized to one part of the body such as the legs and arms, it can also spread to the torso, head, and neck. In rare circumstances, dyskinesia can also affect speech and respiratory and eye muscles.

Webinar: Understanding Dyskinesia

**What causes dyskinesia?**

Dyskinesia is a side effect of levodopa use. The underlying cause of dyskinesia is complex and is not completely known. Normal brain function depends on a complex network of cells that communicates and functions via an array of different brain chemicals. One of these chemicals is dopamine. In Parkinson’s, there is a loss of brain cells called dopaminergic neurons that make dopamine; therefore, the level of dopamine in the brain starts to decrease. The purpose of taking levodopa is to temporarily restore the dopamine that is lost. However, since levodopa is intermittently taken over the course of a day, the level of dopamine will rise and fall. These dopamine level fluctuations, in combination with the loss of dopaminergic neurons, are thought to cause dyskinesia. Dyskinesia can occur when the level of levodopa in the body is at a maximum, referred to as peak dose dyskinesia, or when the levels of levodopa are rising or falling, referred to as diphasic dyskinesia.

**If levodopa causes dyskinesia, then why should I take it?**

At present, treatment with levodopa is the most effective way to relieve tremor, stiffness, and slow movement associated with Parkinson’s. In the early stage of Parkinson’s, levodopa may not be necessary and there are other medications available to treat this stage of the disease. However, as the disease progresses and [symptoms](https://www.apdaparkinson.org/what-is-parkinsons/symptoms/) begin to interfere with daily living, your doctor will prescribe levodopa.

* It typically doesn’t develop immediately – It’s important to note that there is usually a time lag of roughly 4 to 10 years from the start of treatment with levodopa to when dyskinesia emerges, and its severity will vary among different individuals.
* Younger people are at a greater risk – People who get Parkinson’s in their later years (70 years and older) may not show signs of dyskinesia or may have only mild symptoms within their lifetime. Being [diagnosed with Parkinson’s at a younger age](https://www.apdaparkinson.org/what-is-parkinsons/early-onset-parkinsons-disease/) (less than 60) is associated with a greater chance of developing dyskinesia.
* As with every aspect of Parkinson’s, there is variability in dyskinesias – Some (even among patients who develop PD earlier in life) do not develop dyskinesias at all. For those who do get them, not all experience them the same. Dyskinesia in its milder form may not be bothersome, and the mobility afforded by taking levodopa may be preferable to the immobility associated with not taking levodopa. People with Parkinson’s must weigh the benefits from using levodopa versus the impact of dyskinesia on their quality of life.

Are there ways to manage dyskinesia?

Once dyskinesia has started it is difficult to treat. However, there are several ways to delay it from starting or reduce it once it has begun.

**Supplemental or alternative treatment options**

* If you have Parkinson’s with mild symptoms but do not yet have dyskinesia, your doctor may prefer to begin your treatment with drugs known as [dopamine receptor agonists](https://www.apdaparkinson.org/article/the-role-of-dopamine-receptor-agonists-in-pd/) instead of levodopa. However, at some point these drugs will typically cease to be sufficiently effective and levodopa will be needed.
* Once dyskinesia has started and begins to interfere with daily life, your doctor may lower the dosage and adjust the time at which carbidopa-levodopa is taken, prescribe an extended-release formulation of this drug combination (Rytary®), or recommend continuous intestinal infusion of carbidopa-levodopa (Duopa™). These treatment strategies may help reduce fluctuations in dopamine that contribute to dyskinesia.
* The drug amantadine can reduce dyskinesia and can also help Parkinson’s symptoms. Amantadine (Symmetrel®) can be taken in multiple daily doses or in a new extended-release formulation (Gocovri™) that maintains a high level of amantadine in the body throughout the day and has shown good results in reducing dyskinesia. In addition, the extended-release formulation taken orally – once at bedtime – may be more advantageous to some people than the multiple daily doses of immediate-release amantadine.
* [Deep brain stimulation](https://www.apdaparkinson.org/what-is-parkinsons/treatment-medication/deep-brain-stimulation/) is a surgical method that can be used for severe symptoms of dyskinesia. It has been shown to be remarkably effective in carefully selected patients. There are very specific criteria for this procedure to be effective, and is only done when other methods have not worked. Are there coping strategies for living with dyskinesia? There are several ways to manage dyskinesia and Parkinson’s in general by incorporating some basic routines into your lifestyle.

**Things you can do on your own**

* Keep a diary that logs the time and frequency of dyskinesia, which will help your doctor assess if your medications are working and help you schedule daily activities when mobility is better.
* [Physical activity, including mild aerobic exercise](https://www.apdaparkinson.org/resources-support/living-with-parkinsons-disease/diet-exercise/) such as walking, dancing, and swimming, will help keep the body strong and prevent muscle weakening.
* Stress can make dyskinesia symptoms worse, so find ways to reduce stress (breathing exercises, massage, yoga, etc) and try to keep a positive attitude.
* Poor sleep at night is associated with dyskinesia. Aim for good sleep quality and try to experiment with different positions in bed that will help you relax and sleep better.

<https://www.apdaparkinson.org/>