

# PARKINSON'S DISEASE

More than 3% of people in the U.S. are affected by Parkinson's disease. This is a slowly progressing disease of the brain that occurs when a small group of brain cells controlling the body's movement are impaired. Patients can experience tremor (shaking) in their arms and legs, have stiff and rigid muscles, slowness of movements (especially when walking) and impaired balance. Although Parkinson's disease can begin at any age, most people experience their first signs and symptoms when they are age 40 or older. This condition affects men and women alike and people of all races and ethnic backgrounds. Parkinson's is a chronic disease, and symptoms may progress over time.

## Major Symptoms

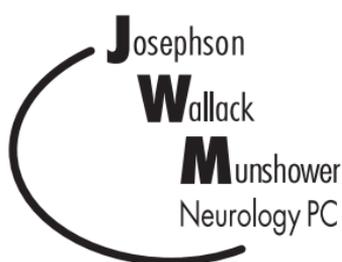
Patients who have Parkinson's disease can experience four types of symptoms:

- Rigidity or stiffness when the arm, leg or neck is moved.
- Tremor (shaking) that patients notice when resting or sitting quietly.
- Bradykinesia/slowness of movement. This may contribute to decreased facial expression, speech pattern changes, shuffling gait, smaller-than-normal handwriting and trouble with fine finger movements.
- Poor balance and coordination due to loss of postural reflexes.

## Other Symptoms

- Emotional changes or depression
- Memory difficulty
- Sleep problems
- Speech changes
- Bladder/bowel difficulties
- Challenges with chewing/swallowing
- Blood pressure changes when standing up (orthostatic hypotension)

Patients' symptoms present differently and can appear at any time and in any order. Sometimes it takes years for the symptoms to progress before they actually interfere with a patient's daily activities and require medication to control them.



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## Diagnosing Parkinson's Disease

There are no specific diagnostic or lab tests to detect Parkinson's disease. A neurologist will evaluate the patient by taking a thorough medical history and performing a neurological examination. Accurate diagnosis by a neurologist is essential. Parkinson's disease is most often diagnosed based on medical history, patient symptoms and additional testing.

## What Causes Parkinson's Disease?

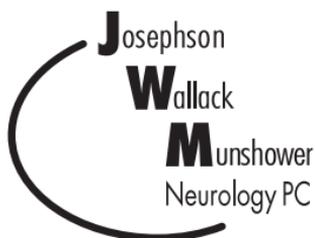
Parkinson's disease is caused by low levels of a chemical in the brain called dopamine (a neurotransmitter). Dopamine helps to control coordination and movement. Low dopamine levels can be caused when the cells that actually produce dopamine fail or die. While there are some hereditary forms of Parkinson's disease, the cause in most cases is unknown.

## Treating and Controlling Parkinson's Disease

While there currently is not a cure for Parkinson's disease, it can be treated and controlled with medication and other interventions. If patient symptoms are mild, the neurologist may recommend not to treat the patient until the symptoms present in a way that affect performance of daily activities. Exercise and physical therapy can improve a patient's mobility and functioning.

Most commonly, medication (frequently a combination of medicines) is used to treat Parkinson's symptoms as they progress. Commonly used medications include carbidopa, levodopa, selegiline, rasagiline and dopamine agonists such as pramipexole and ropinirole. Every patient's situation is different and should be treated individually by the neurologist. For some patients with more severe and debilitating symptoms, surgery such as deep brain stimulation, may be recommended to improve function.

JWM Neurologists diagnose, treat and care for patients who have Parkinson's disease and all other types of movement disorders. They also have expertise and regularly participate in Deep Brain Stimulation patient management.



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For more information about Parkinson's disease visit [www.pdf.org](http://www.pdf.org) (Parkinson's Disease Foundation), and [www.wemove.org](http://www.wemove.org)

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