



## Parkinson's disease

### What is Parkinson's disease?

Parkinson's disease (PD) is a chronic and progressive movement disorder. Meaning that, symptoms continue and worsen over time.

People usually start to have symptoms between the ages of 50 and 60. But sometimes symptoms start earlier.



### What is the cause?

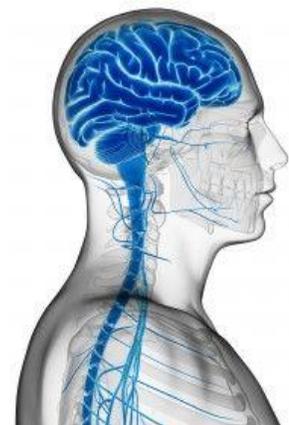
The cause is unknown, and although there is presently no cure, there are treatment options such as medication and surgery to manage its symptoms, and Physical Therapy treatment to help overcome symptoms and improve joint movements, strength, balance and posture.

### What happens (pathology) in the brain to lead to Parkinson's disease?

Parkinson's involves the malfunction and death of vital nerve cells in the brain, called neurons.

Some of these dying neurons produce dopamine, a chemical that sends messages to the part of the brain that controls movement and coordination.

As PD progresses, the amount of dopamine produced in the brain decreases, leaving a person unable to control movement normally.



## What are the symptoms?

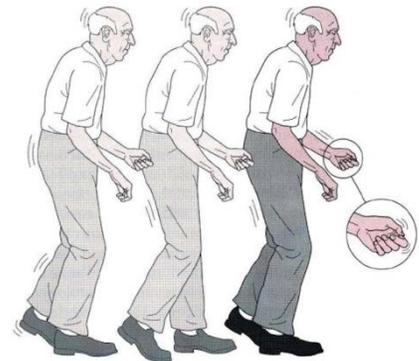
There are specific group of symptoms that an individual experiences which varies from person to person.

Primary motor signs of Parkinson's disease include the following.

- **tremor** of the hands, arms, legs, jaw and face
- **bradykinesia** or slowness of movement
- **rigidity** or stiffness of the limbs and trunk
- **Postural instability** or impaired balance and coordination.

Non motor signs of Parkinson's disease may include the following:

- Trouble with speech and swallowing
- Constipation.
- In the later stages of the disease, a person with Parkinson's may have a fixed or blank expression.
- Some people also lose mental skills (**dementia**).



**Parkinson's Disease Symptoms**

## How Can a Physical Therapist Help?

Because PD affects each person differently, your physical therapist will partner with you to manage your specific situation — now and as your condition changes. You are not alone!

Your treatment plan will be developed after an extensive evaluation by your physical therapist.

The examination will include many questions about how your PD affects your life.

Tests will be conducted to examine your posture, strength, flexibility, walking, balance, and coordination.

There are two approaches in physical therapy:

1- Traditional approach:

- Improve your fitness level, strength, and flexibility.
- Improve the smoothness and coordination of your walking.
- Provide walking aids to help decrease your risk of falling
- Climb and descend stairs and curbs.



- 2- New approach treatment which is called Lee Silverman Treatment Big (LSVT BIG). This is a 4 weeks exercise protocol designed especially for Parkinson's patients:
- Improve your fitness level, strength, and flexibility.
  - Improve the smoothness and coordination of your walking.
  - Turnover in bed more easily
  - Stand and turn to change directions more efficiently
  - Improve the smoothness and coordination of your walking
  - Improve your ability to perform hand movements
  - Decrease your risk of falling
  - Climb and descend stairs and curbs
  - Do more than 1 task at a time more efficiently
  - Participate in activities that are important to you.
  - Develop more effective strategies to get in and out of bed, chairs, and cars



All approaches will work on helping the patient stay as active and as independent as possible.

Your physical therapist will help explain to you both approaches to help you decided according to your preference.