

Young-Onset Parkinson's

Young-onset Parkinson's disease (YOPD) occurs in people younger than 50 years of age. Most people with idiopathic, or typical, PD develop symptoms at 50 years of age or older.

YOPD affects about two to 10 percent of the one million people with PD in the United States. Symptoms are similar to late onset PD but it is important to understand the challenges YOPD individuals often face at a financial, family and employment levels.

In rare instances, Parkinson's-like symptoms can appear in children and teenagers. This form of the disorder is called juvenile Parkinsonism and is often associated with specific, high-PD risk genetic mutations.

Symptoms

Young-onset PD is diagnosed similarly to late onset PD with symptoms including:

Tremors of the hands, arms, legs, jaw and face

Rigidity of the limbs and trunk

Bradykinesia

Postural instability or impaired balance and coordination

People with YOPD may experience the same non-motor symptoms as others with PD, including:

Depression

Sleep disturbances

Changes in memory and thinking

Constipation or urinary problems

How Is Young-Onset PD Different?

People diagnosed with YOPD have a more frequent family history of Parkinson's disease and a longer survival. People living with young-onset PD may experience:

Slower progression of PD symptoms

More side effects from dopaminergic medications

More frequent dystonias (cramping and abnormal postures) such as arching of the foot

Why Is Distinguishing Young-Onset Parkinson's Important?

Socially, people who are affected by PD at a younger age experience the disease differently — they may be at a different stage of their career and often have less time to engage in their own care. They may also have children or are planning to have children and have questions regarding passing on PD genes.

Medically, doctors tailor treatment when it is a younger person with PD. The younger you are, the more likely the disease is genetic. Your care team may offer genetic testing or counseling. Younger brains also have a higher neuroplasticity potential which allows the brain to handle and respond to disease and therapy differently.

Causes and Theories

For most people with PD, the disease is caused by a combination of underlying genetic predisposition and environmental exposures. But genetics plays a larger role in young-onset PD. Scientists have discovered genes that can cause or increase the risk of developing Parkinson's at a younger age.

People who have both early-onset PD and a strong family history of the disease are more likely to carry genes linked to PD, such as SNCA, PARK2, PINK1 and LRRK2. In fact, a recent study found that 65 percent of people with PD onset under 20 years old and 32 percent of people with onset between 20 and 30 had a genetic mutation believed to increase PD risk.

However, some people with these genes may not develop Parkinson's disease at all. Genetic tests are not generally available, nor are they recommended for most people with Parkinson's, because mutations in these genes occur so rarely. Also, there is no difference in the treatment you receive if Parkinson's has or does not have a known genetic cause.

Theoretically, genes may play a larger role in young-onset PD, while environmental factors may play more of a role in sporadic PD. But to date researchers have found this hard to prove, as we are still improving our understanding of the biological mechanisms of the disease.

Therapy and Treatment

When it comes to medical treatment, people with YOPD have a significantly greater risk of developing the following:

Dyskinesias or involuntary movements (most commonly dystonia) as a side effect of carbidopa/levodopa (the drug prescribed most often to treat Parkinson's)

Motor fluctuations when taking levodopa

If diagnosed with young-onset PD, it is important to seek treatment from a movement disorder specialist or a neurologist with expertise in movement disorders. Each person's treatment is unique and can require fine adjustments of multiple medications. Deep brain stimulation remains a surgical option for people with young-onset PD.