

Parkinson's Disease

January 10, 2008



Parkinson's disease is a chronic, progressive disorder of the central nervous system that belongs to a group of conditions called motor system disorders. Parkinson's is the direct result of the loss of cells in a section of the brain called the substantia nigra. Those cells produce dopamine, a chemical messenger responsible for transmitting signals within the brain. Loss of dopamine causes critical nerve cells in the brain, or neurons, to fire out of control, leaving patients unable to direct or control their movement in a normal manner.

Parkinson's disease has been known since ancient times. An English doctor, James Parkinson, first described it extensively in 1817; the thoroughness of his analysis is such that researchers and clinicians are still urged to read his original notes on the condition.

Primary symptoms definitions:

Bradykinesia is slowness in voluntary movement. It produces difficulty initiating movement and difficulty completing movement once it's in progress..

Tremors in the hands, fingers, forearms or feet tend to occur when a limb is at rest but not when performing tasks. Tremors can also occur in the mouth and chin.

Rigidity (or stiff muscles) can produce muscle pain and an expressionless, mask-like face, and it tends to increase during movement.

Poor balance happens when there's an impairment or loss of reflexes that adjust posture to help maintain balance.

Parkinsonian gait is a distinctive unsteady walk associated with Parkinson's disease. There's a tendency to lean unnaturally backward or forward, and to develop a stooped, head-down, shoulders-drooped stance. Arm swinging is diminished or absent, and people with Parkinson's tend to take small shuffling steps.

Causes:

Scientists have not yet found the exact cause of Parkinson's disease. Most believe that it is a combination of genetic and environmental factors, but no definitive data exist.

Treatment option:

At this time no treatment has been shown to slow or stop the progression of this disease. Instead, therapy is directed at treating the symptoms that are most bothersome to an individual with Parkinson disease. Treatment may include medication, surgical therapy, physical therapy and speech therapy.

Medications:

Because individuals with PD have a range of symptoms, the choice of medication (and the decision whether to treat with medication) varies considerably between individuals. Moreover, over time, the dose of medications may need to be increased or new medications added.

Expert in Parkinson's Disease? DSES is always looking for volunteers to help teach or give presentations!!

Resources and Additional Information

National Parkinson Foundation: www.parkinson.org

National Institute of Neurological Disorders and Stroke: www.ninds.nih.gov