

## Parkinson's Disease Fact Sheet

- Parkinson's disease (PD) is a degenerative disorder of the brain.
- Symptoms of PD may affect movement (*motor symptoms*) or other areas of daily life (*non-motor symptoms*). These symptoms take many forms and affect different people in different ways. Motor symptoms can include tremors, stiffness, slowness of movement, and impaired balance. Not everyone diagnosed with PD will experience all of these symptoms.
  - Symptoms of PD are the result of degeneration of brain cells in the substantia nigra.
  - These cells produce dopamine, a chemical messenger that helps control and coordinate body movements. As dopamine is lost, the symptoms of PD appear and slowly worsen over time (symptoms do not emerge until 60 percent to 80 percent of dopamine-producing cells in the substantia nigra have died).
- An estimated one million Americans have PD, which usually affects people over the age of 60. About one in every 100 people over the age of 60 is affected by PD.
- In 2005, an average of 21 more prescriptions were written for PD patients compared to a control-group in a cost study.
  - Societal costs of PD are estimated to exceed \$6 billion annually.
  - Medications and other direct costs are between \$1,750 to \$17,560 per patient annually.
- There is a need for new treatments for PD that more effectively control the motor symptoms of early PD and reduce "off" time (the time when PD symptoms are not controlled) in moderate-to-advanced PD without complicated titration and dosing regimens, and few side effects.
  - It is estimated that after four to six years of levodopa therapy, there is a 40 percent chance that patients with advanced PD will experience significant "off" time each day. As their PD progresses, many patients develop complications, such as falls, freezing of gait, and dementia. Other non-motor complications common to PD are depression and sleep problems.
- There is no cure for PD, but medications and other types of treatment have resulted in many patients being able to continue their daily activities throughout the course of their lives with PD.
- Although levodopa is still considered the mainstay therapy, as PD progresses, long-term use is often associated with response fluctuations ("on-off" periods).
  - In patients with milder symptoms, many physicians will choose to delay levodopa therapy by using other drugs that either activate dopamine receptors directly or prolong the effects of remaining dopamine in the brain.
  - As the disease progresses and symptoms worsen, drug combinations can be given which include not only levodopa but other agents as well.