



Parkinson's facts

Who has Parkinson's?

- As many as one million Americans live with Parkinson's disease.
- More people have Parkinson's disease than the combined number of people diagnosed with multiple sclerosis, muscular dystrophy and Lou Gehrig's disease.
- Approximately 60,000 Americans are diagnosed with Parkinson's disease each year, and this number does not reflect the thousands of cases that go undetected.
- More than 10 million people worldwide are living with Parkinson's disease.
- Each day about 164 people are diagnosed with Parkinson's disease.
- Affects about 3 percent of the population over the age of 65.
- Incidence of Parkinson's increases with age, but an estimated four percent of people with PD are diagnosed before the age of 50.
- Incidence will double in the next 40 years with the number of elderly people soaring.
- Men are one and a half times more likely to have Parkinson's than women.
- Parkinson's is more common in the Midwest and the Northeast and is twice as likely to strike whites and Hispanics as blacks and Asians.
- Exposure to certain pesticides can triple a person's risk of getting Parkinson's disease.

What does Parkinson's cost?

- The combined direct and indirect cost of Parkinson's, including treatment, Social Security payments and lost income from inability to work, is estimated to be nearly \$25 billion per year in the United States alone.
- Medication costs for an individual person with PD average \$2,500 per year, and therapeutic surgery can cost up to \$100,000 per patient.

What others are saying

"Disease modifying treatments for Parkinson disease (PD) are a vital unmet need. There is gathering evidence that the immune system plays an important role in PD progression. This study tests the safety of a potent immune modulating drug, granulocyte macrophage colony stimulating factor or GM-CSF. The drug appears well tolerated as used in this study, and there are clear indications of potentially beneficial immunomodulation. The next step is validation in a similarly controlled trial involving larger groups of patients. Early indications of motor skill improvement observed in the current report will require larger scale validations."

David Standaert, M.D., Ph.D., professor and chair of neurology and director of the division of movement disorders at the University of Alabama at Birmingham

"Drs. Gendelman and Mosley have taken an important first step in applying immunotherapy to harness neuroinflammation in Parkinson's disease. The ability to increase regulatory T-cells is an exciting therapeutic approach for patients with Parkinson's disease and will hopefully translate into long-term beneficial outcomes."

Stanley H. Appel, M.D., Edwards Distinguished Endowed Chair for ALS Research Chair, Stanley H. Appel Department of Neurology, and co-director, Houston Methodist Neurological Institute

“This is an interesting early study that could have implications for how we view and treat Parkinson's disease (PD). For more than a decade, immune function has been believed to be tied to disease. If validated in larger numbers of patients and by others, the recognition that peripheral immune cell dysregulation may contribute to disease progression would open new avenues of investigation. This includes investigation of the potential of other FDA-approved immunomodulatory strategies that can restore balance in peripheral immune cell populations that we know have the capacity to traffic to the brain to slow down PD progression and for other neurodegenerative diseases.”

Malu G. Tansey, Ph.D., associate professor, Department of Physiology, Emory University School of Medicine