Parkinson’s Disease

Parkinson’s is a progressive neurodegenerative disease caused by the death of dopamine-producing cells found in a motor pathway of the brain. People with Parkinson’s may experience tremors, slowness of movement, and limb rigidity, as well as difficulty balancing and walking. Patients can also suffer from fatigue and pain. Parkinson’s severely impacts day-to-day life, making tasks like cooking, dressing, and washing much more difficult; patients often must adjust to a life with less independence. Still, research has helped scientists create treatments for Parkinson’s, and future research may be able to provide a cure for this debilitating disease.¹

**TODAY**
An estimated 1.07 million Americans were living with Parkinson’s in 2017.²

Between 50% and 80% of people with Parkinson’s develop dementia over the course of the disease.³

**Research Delivers Solutions**

Knowing that Parkinson’s symptoms are caused by the death of dopamine producing brain cells, scientists have developed drugs that can increase the amount of dopamine in the brain. One such drug is levodopa, which the brain can convert into dopamine. New research has shown that certain microbes in the gut prevent levodopa from reaching the brain, making the drug less effective. This research may guide future drug regimens and consideration of microbes in Parkinson’s treatment.⁴

**Stem cells** offer scientists new ways to both model and potentially treat Parkinson’s. Stem cells can develop into any other type of cell. Recent studies have demonstrated that dopamine-producing cells can be made from stem cells, and researchers hope to implement these findings to inform future therapeutic clinical trials.⁵

**Deep Brain Stimulation (DBS)** is a type of surgery that can help alleviate some symptoms of Parkinson’s. The surgery involves the placement of electrodes into the brain which deliver electric pulses to a targeted area. DBS can help alleviate stiffness, slowness, and tremor. A new clinical trial is examining whether physical therapy can help patients who recently underwent DBS surgery to improve their balance and gait symptoms.⁶

**COST**
Parkinson’s direct and indirect costs, including treatment and lost productivity, totaled approximately $52 billion in 2017.²

The out-of-pocket costs alone for a person with Parkinson’s disease can exceed $2,500 a year.²

The U.S. spends about 5 cents of each health dollar on research to prevent, cure and treat disease and disability. Do you think that this is too much, the right amount, or not enough?

Source: A Research!America poll of U.S. adults conducted in partnership with Zogby Analytics in January 2019
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Then. Now. Imagine.

THEN
The accuracy rate for a Parkinson’s diagnosis ranged from 74-84% between 1998 and 2014.  

NOW
Advances in genetics and neurobiology have led to the discovery that there are several possible distinct gene mutations that can lead to Parkinson’s, opening windows for new diagnostic methods and treatments.  

IMAGINE
A cure.

2017 Parkinson’s Disease Mortality (per 100,000 people)

SOURCE: Centers for Disease Control and Prevention

Most people are diagnosed around age 60 and have no history of Parkinson’s in their family, but about 5-10% of patients have early onset Parkinson’s, which may have a genetic link.