

# Parkinson's disease is more common than thought. Toxins may contribute to rising rates

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Parkinson's disease strikes nearly 90,000 older Americans a year, 30,000 more than was previously estimated, according to a study published

Thursday.

Incidence rates differed across the country. States with higher rates of older residents saw more diagnoses of the [disease](#), whose risk typically increases with age, but so did some "Rust Belt" states in the Northeast and Midwest that have a history of heavy industry manufacturing.

Increasing rates of Parkinson's and the cost of treatments and lost income means everyone will be touched by the disease either directly or indirectly, said Dr. Michael Okun, chair of neurology at the University of Florida College of Medicine in Gainesville.

"A disease like this could bankrupt the health care system," said Okun, who was not involved in the [research](#) but serves as a medical advisor to the Parkinson's Foundation. "It's something we all should be paying attention to."

## **What is Parkinson's?**

Parkinson's is a degenerative syndrome that results in the slow loss of brain circuitry involved in movement, thinking and behavior. It can cause tremors, stiffness, slowness and falls, in addition to anxiety, depression, and sleep dysfunction.

Famous people who have been diagnosed with Parkinson's include actors Michael J. Fox and Alan Alda, boxer Muhammad Ali, singers Linda Ronstadt and Neil Diamond.

## **How many people are living with Parkinson's?**

The new study found that 90,000 Americans a year are diagnosed with Parkinson's, up from the previous estimate of 60,000. This finding is

based on five previous prevalence studies, including data through 2012, so it is likely an underestimate, Okun said.

Men are nearly twice as likely as women to receive the diagnosis, according to the research, and incidence generally increases with age beginning in the 60s.

A 2018 study from the Parkinson's Prevalence Project estimated that 930,000 people in the U.S. would be living with Parkinson's by 2020 and 1.2 million by 2030, largely driven by the aging population.

Pinpointing the incidence rate can help convince lawmakers to direct more funding to Parkinson's research and companies to invest in treatments, said Jim Beck, a study co-author and chief scientific officer for the Parkinson's Foundation, which helped fund the new study along with the Michael J. Fox Foundation and the Institute for Clinical Evaluative Sciences.

"We want to use this data to encourage [policy makers](#) to reconsider how much funding Parkinson's disease gets and the impact on society," he said. "There's a real call to action here."

## **Why are rates increasing?**

The simplest answer is that Americans are getting older. This probably explains rising rates in states like Florida, which are destinations for retirees.

There's also an odd connection seen between smoking and Parkinson's, where heavy smokers appear less likely to develop the disease, Beck said.

As smoking rates have fallen, Parkinson's rates have risen, he said,

though it may be that smoking is a marker for something else rather than that tobacco itself is protective.

Increases in places like Ohio and Pennsylvania may be driven by a variety of factors, including better awareness and environmental toxics from heavy industry.

## **Could environmental factors also be contributing?**

Research is in its infancy, but Parkinson's expert Ray Dorsey has concluded the disease is increasing faster than aging, so there are other drivers, likely environmental.

Some research has implicated the pesticide paraquat, though not all studies confirm that connection. Lawsuits are ongoing against the manufacturers of paraquat by individuals with Parkinson's—people, Dorsey said, who have no [family history](#) or identifiable genetic cause of the disease, but who were exposed to paraquat before developing Parkinson's.

Air pollution also might be raising the Parkinson's disease risk, Dorsey said, as might the degreasing agent Trichloroethylene or TCE.

## **Why does this distribution of cases matter?**

Knowing where Parkinson's is most likely to occur can help officials direct dollars and care, Beck said. "Do we have neurologists distributed where these people are?"

An area of high incidence also can be targeted for research and trial recruitment, he said.

## How much does Parkinson's cost America?

Each family touched by Parkinson's spends about \$26,000 per year out of pocket to cope with the disease, Beck said, far more than is spent on heart disease and diabetes.

An earlier study from the Michael J. Fox Foundation and others found that Parkinson's costs the U.S. \$52 billion every year and will cost \$80 billion annually by 2037.

The [federal government](#) now spends over \$200 million a year to address Parkinson's. But Okun said that an investment of \$3 billion a year is what's needed to find viable treatments, better understand the disease and hopefully learn to prevent it.

More [research funding](#) also helps attract more scientific talent to the field, Beck said. "If they see it's going to be hard to do research in Parkinson's because there's not a lot of money there, they're going to go into something else."

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