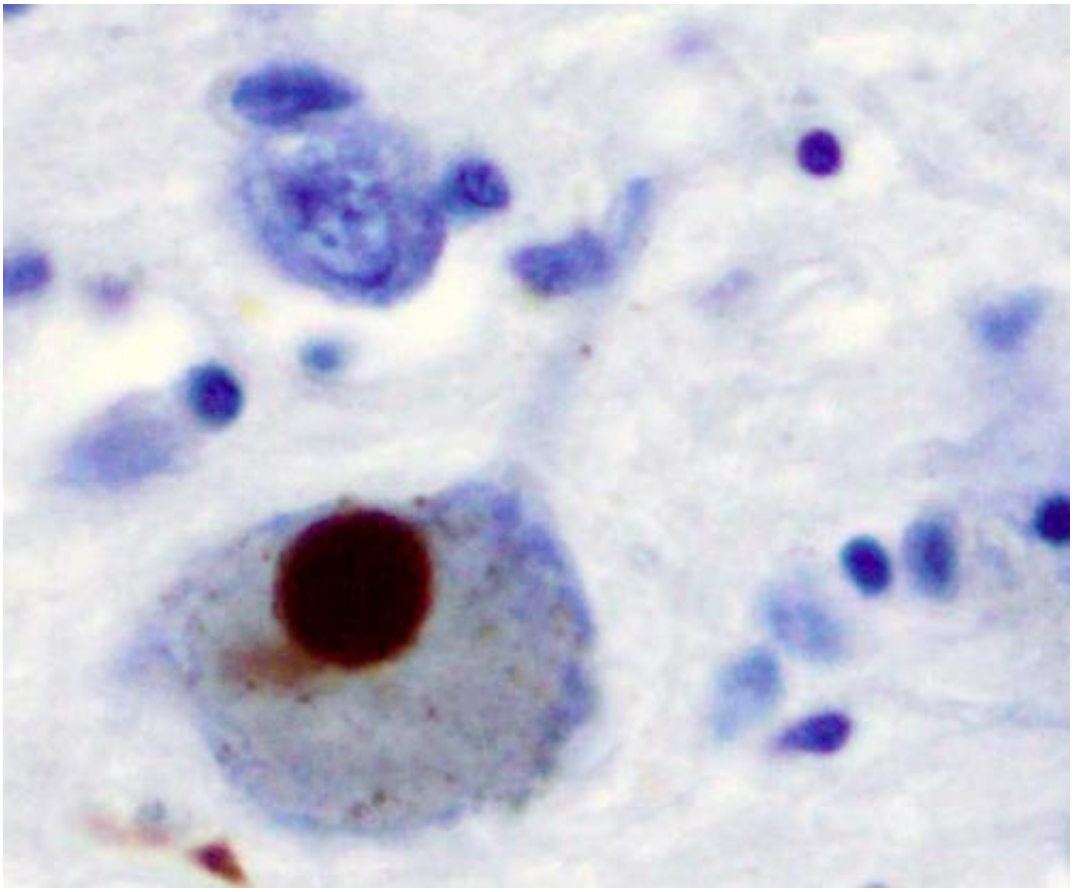
Study: Get moving to put the brakes on early Parkinson's

January 12 2022



Immunohistochemistry for alpha-synuclein showing positive staining (brown) of an intraneural Lewy-body in the Substantia nigra in Parkinson's disease. Credit: Wikipedia

A new study suggests that people with early-stage Parkinson's disease

who regularly got one to two hours of moderate exercise twice a week, like walking or gardening, may have less trouble balancing, walking and doing daily activities later. The research is published in the January 12, 2022, online issue of *Neurology*, the medical journal of the American Academy of Neurology. Researchers found that those who exercised regularly over five years did better on cognitive tests and had slower progression of the disease in several aspects.

"Our results are exciting, because they suggest it may never be too late for someone with Parkinson's to start an exercise program to improve the course of their disease," said study author Kazuto Tsukita, MD, of Kyoto University in Japan and a member of the American Academy of Neurology. "That's because we found that to slow progression of the disease, it was more important for people with Parkinson's to maintain an exercise program than it was to be active at the beginning of the disease."

The study looked at 237 people with early-stage Parkinson's. They had an average age of 63 and were followed by researchers for up to six years.

Participants' exercise levels at the start of the study were determined using a questionnaire that measures time and intensity during the previous week of leisure activity, like walking and biking; household activity, like gardening; and occupational activity, like taking care of others. Common cognitive tests were used to measure people's verbal and memory skills and how much time it took to complete mental tasks.

Researchers found that people's physical activity level at the start of the study was not associated with the progression of their Parkinson's later on. Instead, they found it was more important to maintain physical activity over time.

People who got at least at least four hours per week of moderate to vigorous exercise like walking or dancing had slower decline in balancing and walking five years later, compared to those who did not get that much exercise. Researchers used a common test to rate each person's Parkinson's symptoms on a scale of zero to four, with higher scores indicating more severe impairment. People who got below average levels of moderate to vigorous exercise, or less than one to two hours, once or twice a week, increased from an average score of 1.4 to 3.7 over six years. That's compared to those who got above average levels of moderate to vigorous exercise, who on average increased from a score of 1.4 to 3.0 during that time.

One cognitive test researchers used was a common paper-and-pencil test used to measure mental processing speed. The test gives the participant 90 seconds to match numbers with geometric figures and has a maximum possible score of 110. People who did less than 15.5 hours of work per week, on average, dropped from a 44 to a 40 on the test six years later. That's compared to an average drop from a score of 44 to 43 for those who did more than 15.5 hours of work over the same period.

"Although medications can provide people with Parkinson's some symptom relief, they haven't been shown to slow the progression of the disease," Tsukita said. "We found that regular physical activity, including household tasks and moderate exercise, may actually improve the course of the disease over the long run. Best of all, exercise is low cost and has few side effects."

The study does not prove that maintaining an exercise program will delay the effects of Parkinson's disease. It only shows an association.

A limitation of the study is that activity levels were self-reported and may not be accurate.