

# Weight change in early Parkinson's disease may be tied to changes in thinking skills

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People who gain or lose weight soon after being diagnosed with Parkinson's disease may be more likely to have changes in their thinking skills than people who maintain their weight, according to a study

published in the October 19, 2022, online issue of *Neurology*.

"Early [weight](#) loss is a common symptom in people with Parkinson's disease," said study author Jin-Sun Jun, MD, of Kangnam Sacred Heart Hospital in Seoul, Republic of Korea. "It could serve as a sign that people are at risk of cognitive decline."

The study involved 358 people who were recently diagnosed with Parkinson's disease and had not yet started taking Parkinson's medications. They were an average age of 61 and had been diagnosed an average of two years earlier. They were compared to 174 people who did not have Parkinson's disease.

Weight gain or loss was defined as a change of more than 3% of [body weight](#) during the first year of the study. Weight maintenance was defined as no change or change of no more than 3%. A total of 98 people had [weight loss](#), 59 had [weight gain](#) and 201 maintained their weight.

Participants took tests of thinking skills at the beginning of the study and then every year for up to eight years. They also took tests for other non-motor symptoms that can occur in people with Parkinson's disease, such as depression, anxiety and sleep disorders.

The people with Parkinson's who lost weight had a faster decline in their overall thinking scores compared to those with Parkinson's who maintained their weight. Both groups started with average scores of 27 on the test. The scores of those who lost weight declined 0.19 points faster per year than those of those who maintained their weight. The thinking skills with the steepest declines were related to verbal fluency skills, which are a measure of executive function.

In contrast, the people with Parkinson's who gained weight had a slower

decline in their scores on a test of processing speed compared to those who maintained their weight.

There was no association between weight change and any other non-motor symptoms.

In the people who did not have Parkinson's disease, there was no relationship between weight changes and thinking skill test scores.

"These findings highlight the potential importance of weight management in the early stages of Parkinson's disease," Jun said.

"Further studies are needed to determine whether taking steps to prevent weight loss could slow cognitive decline in people with Parkinson's."

The study does not prove that weight change causes changes in thinking skills; it only shows an association.

Limitations of the study were that researchers could not investigate whether the effect of weight change on [thinking skills](#) was the same in people who were underweight or obese. They also could not consider whether weight change was intentional or unintentional.

**More information:** Ryul Kim et al, Association of Early Weight Change With Cognitive Decline in Patients With Parkinson Disease, *Neurology* (2022). [DOI: 10.1212/WNL.000000000000201404](https://doi.org/10.1212/WNL.000000000000201404)

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