

Loneliness could raise risk for Parkinson's, study finds

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Loneliness can leave many feeling desolate, but new research now

suggests it may also leave people vulnerable to Parkinson's disease.

Among more than 490,000 people listed in the UK Biobank who were followed for up to 15 years, loneliness appeared to increase the chances of a Parkinson's diagnosis by 37%.

"The association between loneliness and incident Parkinson's disease was not due to shared genetic, clinical or [behavioral risk factors](#)," said senior researcher Angelina Sutin, a professor in the department of behavioral sciences and [social medicine](#) at Florida State University's College of Medicine in Tallahassee.

Although this study can't prove that loneliness causes Parkinson's disease, there appears to be a connection, Sutin said.

"We show that there is an association between loneliness and the development of Parkinson's disease, not that loneliness causes Parkinson's disease," she stressed.

Sutin said that loneliness has been identified as a significant public health concern by the U.S. Surgeon General, the National Academies of Sciences, Engineering and Medicine, and the World Health Organization.

"This study adds to the body of evidence for the poor outcomes associated with loneliness, particularly [neurodegenerative diseases](#)," she said. "Loneliness has been associated with Alzheimer's disease and other types of dementia. The present research indicates that it is a risk factor for Parkinson's disease as well."

Multiple factors may be linked to why loneliness may raise the risk of Parkinson's disease, Sutin suggested.

"We found that behavioral and clinical pathways account for a small part of the association. The association could be due to other behavioral and clinical factors that we did not consider," she added. "There could also be metabolic, inflammatory and neuro and endocrine pathways."

Loneliness seems to be associated with overall worse brain health, perhaps through greater inflammation or other neurodegenerative processes and is not necessarily specific to Parkinson's disease, Sutin said.

"It may be that [loneliness](#) makes the brain more susceptible to neurodegeneration, which for some people could lead to Alzheimer's disease and others to Parkinson's disease," she explained.

Conversely, being socially connected may lower the risk of Parkinson's disease. "We did not test this association in the current study, but yes, it is thought that social connection is protective. More research needs to address this question," Sutin said.

The report was published online Oct. 2 in *JAMA Neurology*.

"We know most of the people who feel lonely also live alone, which is increasingly the condition of a lot of older people," said Dr. Alessandro Di Rocco, system director of neurology, Parkinson's and [movement disorders](#) at Northwell Health in New York City. He was not involved with the new study.

Living alone may carry with it some unhealthy life choices, Di Rocco said. For example, many older people who live alone may not be eating a [healthy diet](#), but rather existing on [snack foods](#), [fast food](#) or other unhealthy choices. They may also be less physically active.

"Loneliness may not be good for the brain due to a lack of daily brain

stimulation," he added. "You may have the television on, you may have other sources [of stimulation], but the level of brain engagement may be diminished."

Loneliness may result in a higher sense of stress or psychological discomfort that can lead to a brain that is more vulnerable, Di Rocco suggested.

"Loneliness may not cause Parkinson's, but to some degree predisposes it. Predisposition has to do with the fact that the brain may not be able to defend itself to whatever biological happens, which may lead to the development of Parkinson's," he said.

Di Rocco noted that physical activity keeps the brain healthy and the same can be said for [mental activity](#).

"Physical activity helps delay the disease progression. We also know that mental engagement is beneficial in a very similar way and diminishes the likelihood a person develops cognitive problems," he said. "For people who have cognitive problems, whether it is related to Parkinson's or Alzheimer's or other disorders, being engaged intellectually is probably the best medication we have."

More information: Antonio Terracciano et al, Loneliness and Risk of Parkinson Disease, *JAMA Neurology* (2023). [DOI: 10.1001/jamaneurol.2023.3382](https://doi.org/10.1001/jamaneurol.2023.3382)

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