

Study indicates possible link between chronic stress and Alzheimer's disease

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Researchers from Karolinska Institutet have published [a study](#) in *Alzheimer's Research & Therapy* that addresses possible associations between chronic stress, mild cognitive impairment and Alzheimer's

disease. The study shows how people aged between 18 and 65 with a previous diagnosis of chronic stress and depression were more likely than other people to be diagnosed with mild cognitive impairment or Alzheimer's disease.

Some 160,000 people have some form of dementia in Sweden, Alzheimer's disease being the most common, a figure that is rising with our life expectancy. At the same time, many new diagnostic methods and early intervention therapies have been developed in recent years, which foregrounds the need to identify more [risk factors](#) for the disease.

Previous studies have demonstrated a possible association between chronic stress, [depression](#) and dementia. This present study now shows that people who have been diagnosed with chronic stress or depression are more likely to be diagnosed with Alzheimer's disease.

The study shows that the risk of Alzheimer's disease was more than twice as high in patients with chronic stress and in patients with depression as it was in patients without either condition; in patients with both chronic stress and depression it was up to four times as high. The risk of developing [cognitive impairment](#) was elevated about as much.

"The risk is still very small and the causality is unknown," says the study's last author Axel C. Carlsson, docent at the Department of Neurobiology, Care Sciences and Society, Karolinska Institutet. "That said, the finding is important in that it enables us to improve preventative efforts and understand links with the other risk factors for dementia."

The study was conducted using Region Stockholm's administrative health care database, which contains all health care contacts compensated by the region. The researchers focused on [patients](#) between the ages of 18 and 65 and between 2012 and 2013. They identified 44,447 people with a diagnosis of chronic stress and/or depression and

followed them for eight years to see how many of them were later diagnosed with mild cognitive impairment or Alzheimer's disease.

A comparison with all other 1,362,548 individuals in the age bracket showed that more people with chronic stress or depression had also been diagnosed with [mild cognitive impairment](#) or Alzheimer's disease.

"It's very uncommon for people in this age group to develop dementia, so we need to identify all possible risk factors for the disease," says Dr. Carlsson. "We show here that the diagnosis is more common in people who have suffered [chronic stress](#) or depression, but more studies will be required if we're to demonstrate any causality there."

The researchers will now be continuing their work and developing questionnaires and cognitive tests to aid the early identification of people at risk of dementia.

More information: Johanna Wallensten et al, Stress, depression, and risk of dementia—a cohort study in the total population between 18 and 65 years old in Region Stockholm, *Alzheimer's Research & Therapy* (2023). [DOI: 10.1186/s13195-023-01308-4](https://doi.org/10.1186/s13195-023-01308-4)

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