

# Biomarkers in cerebrospinal fluid can identify patients with Alzheimer's disease

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Analysis of specific biomarkers in a cerebrospinal fluid sample can differentiate patients with Alzheimer's disease from those with other types of dementia. The method, which is being studied by researchers at Sahlgrenska Academy, may eventually permit earlier detection of Alzheimer's disease.

Due to the similarity of the symptoms, differentiating patients with Alzheimer's from those with other types of dementia – or patients with Parkinson disease from those with other motor disorders – is often difficult.

Making a proper diagnosis is essential if proper treatment and medication are to commence at an early stage. A research team at Sahlgrenska Academy, University of Gothenburg, is developing a new method to differentiate patients with Alzheimer's disease or Parkinson disease by analyzing a [cerebrospinal fluid](#) sample.

The study, led by Professor Kaj Blennow and conducted among 450 patients at Skåne University Hospital and Sahlgrenska University Hospital, involved testing five proteins that serve as biomarkers for the two diseases.

"Previous studies have shown that Alzheimer's disease is associated with [biochemical changes](#) in specific proteins of the brain," says Annika Öhrfelt, a researcher at Sahlgrenska Academy. "This study has found that the inclusion of a new protein can differentiate patients with Alzheimer's disease from those with Lewy body dementia, Parkinson disease dementia and other types of [dementia](#)."

Similarly, the biomarkers can differentiate patients with [Parkinson disease](#) from those with atypical Parkinsonian disorders.

"Additional studies are needed before the [biomarkers](#) can be used in clinical practice during the early stages of disease," says Öhrfelt, "but

these results represent an important step along the way."

**More information:** The article, entitled "Accuracy of a Panel of 5 Cerebrospinal Fluid Biomarkers in the Differential Diagnosis of Patients with Dementia and/or Parkinsonian Disorders," was published by the *Journal of the American Medical Association*.  
[archneur.jamanetwork.com/article.aspx?articleid=1355364](http://archneur.jamanetwork.com/article.aspx?articleid=1355364)

Provided by University of Gothenburg

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