Autoimmune disease may raise risk of dementia, Oxford study shows

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Ten million people in Britain with autoimmune disease may be at greater risk of developing dementia, the biggest ever study has shown.

Researchers at Oxford University looked at the records of 1.8 million people suffering from conditions like coeliac disease, psoriasis, multiple sclerosis (MS) and rheumatoid arthritis between 1998 and 2012.

Compared with people admitted to hospital for other causes, [those with an autoimmune disorder were 20 per cent more likely to be later admitted to hospital with dementia.](http://jech.bmj.com/lookup/doi/10.1136/jech-2016-207809)

Of the 25 autoimmune diseases included in the analysis, 18 were significantly associated with dementia. People with MS had nearly double the risk, while those with psoriasis had a 29 per cent increased chance, and people with coeliac, an eight per cent increase.

“Overall, people admitted to hospital with an autoimmune disease were 20 per cent more likely to have a subsequent admission for dementia than those without an admission,” said Professor Michael Goldacre, [Unit of Healthcare Epidemiology, at Oxford University.](https://www.uhce.ox.ac.uk/uhce/)

“If our findings are confirmed in other studies, clinicians and epidemiologists will wish to know that some people with some autoimmune diseases have an elevated risk of dementia.”

However in the case of rheumatoid arthritis, despite raising the vascular dementia by 16 per cent, the condition lowered the chance of developing Alzheimer’s by 11 per cent, which the authors believe could be linked to anti-inflammatory drugs taken to alleviate symptoms.

The Alzheimer’s Society is currently funding a study to test whether a rheumatoid arthritis treatment can also work for people with early stage Alzheimer’s disease.

Dr Clare Walton, Research Manager at [Alzheimer’s Society](https://www.alzheimers.org.uk/) said : "The causes of dementia are complex and we are increasingly learning about links between dementia and other health conditions.

"This research reinforces earlier evidence that shows the immune system plays an important role in developing dementia, opening up new avenues to find effective treatments.”

Around 850,000 people in Britain have dementia, with Alzheimer’s the most common form, although currently there is no cure and the cause is still unknown.

The new findings suggest that dementia may be linked to a fault in the immune system, which leads to a build-up of plaques in the brains of people with Alzheimer’s disease. The plaques associated with Alzheimer’s are present in healthy brains and perform important functions, but a misfiring immune system may allow them to grow out of control.

Autoimmune diseases or their treatment might also boost the risk of circulatory disease generally, of which vascular disease is a component, in some people.

People with autoimmune disease were 53 per cent more likely to be admitted subsequently for coronary heart disease and 46 per cent more likely to be admitted with a stroke.

Dr Rosa Sancho, Head of Research at [Alzheimer’s Research UK](http://www.alzheimersresearchuk.org/), said: “We are becoming increasingly aware of the important role the immune system plays in dementia, and this new study provides evidence to support this link.

“Targeting immune and inflammatory responses is a promising approach for researchers working on new dementia treatments. Alzheimer’s Research UK is supporting projects that are designing new drugs that target different aspects of inflammation as a way to treat Alzheimer’s disease and other forms of dementia.”

Charities say the best way to reduce the risk of dementia is by not smoking, eating a healthy balanced diet, keeping physically active, drinking in moderation, keeping cholesterol and blood pressure in check, and maintaining a healthy weight.

The research was published in the [BMJ's Journal of Epidemiology & Community Health.](http://jech.bmj.com/lookup/doi/10.1136/jech-2016-207809)