

New shingles vaccine could reduce risk of dementia

July 25 2024



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A study of more than 200,000 people by researchers at the University of Oxford found at least a 17% reduction in dementia diagnoses in the six years after the new recombinant shingles vaccination, equating to 164 or

more additional days lived without dementia.

The paper "[The recombinant shingles vaccine is associated with a lower risk of dementia](#)" is published in *Nature Medicine*.

The benefit was seen in both sexes but was greater in women, and the findings suggest that the recombinant shingles [vaccine](#) may have additional value in terms of protection against dementia.

Shingles is a painful and serious condition afflicting many elderly people. It is caused by the Herpes zoster virus that can flare up in people who previously had chicken pox. After the introduction of a vaccine against shingles (Zostavax) in 2006, several studies have suggested that the risk of dementia might be lower in people who had received the vaccine, although results were not conclusive.

In many countries, including the UK and U.S., Zostavax has now been withdrawn and replaced by a much more effective vaccine (Shingrix). In the UK, Shingrix is being offered by the NHS to all [elderly people](#) and certain other groups.

In the new study, researchers at the University of Oxford and NIHR OH BRC used the U.S. TriNetX electronic health records network. In the U.S., there was a switchover between Zostavax and Shingrix in October 2017. This allowed the researchers to compare the risk of dementia in the six years following Shingrix compared to otherwise similar people who had received Zostavax. More than 100,000 people were in each group. Shingrix was also compared to people who had received vaccines against other infections (flu and tetanus, diphtheria, and pertussis).

Shingrix was associated with 17% lower risk of dementia than Zostavax, and 23–27% less than with the other vaccines. This equates to 5–9 more months lived without dementia for those who had been given the

Shingrix vaccine compared to the other vaccines. The beneficial effects were present in both sexes but greater in women than in men.

Various additional analyses showed that these findings are robust but the researchers say further research is needed before any suggestion is made that the shingles vaccine should be used to help prevent or delay dementia onset.

Dr. Maxime Taquet, NIHR Academic Clinical Lecturer in the Department of Psychiatry at Oxford, who led the study said, "The size and nature of this study makes these findings convincing, and should motivate further research. They support the hypothesis that vaccination against shingles might prevent dementia. If validated in [clinical trials](#), these findings could have significant implications for older adults, health services, and public health."

John Todd, Professor of Precision Medicine at the University of Oxford's Nuffield Department of Medicine, said, "A key question is, how does the vaccine produce its apparent benefit in protecting against dementia? One possibility is that infection with the Herpes zoster virus might increase the risk of dementia, and therefore by inhibiting the virus the vaccine could reduce this risk. Alternatively, the vaccine also contains chemicals which might have separate beneficial effects on brain health."

Paul Harrison, Professor of Psychiatry and OH BRC Theme lead for Molecular Targets, who supervised the study, said, "The findings are intriguing and encouraging. Anything that might reduce the risk of [dementia](#) is to be welcomed, given the large and increasing number of people affected by it."

More information: Maxime Taquet et al, The recombinant shingles vaccine is associated with lower risk of dementia, *Nature Medicine*

(2024). [DOI: 10.1038/s41591-024-03201-5](https://doi.org/10.1038/s41591-024-03201-5)

Provided by University of Oxford

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