



**Health  
Information  
and Quality  
Authority**

An tÚdarás Um Fhaisnéis  
agus Cáilíocht Sláinte

## **Scoping Review**

# **The association between herpes zoster vaccination and the risk of dementia: plain language summary**

May 2026

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## Plain language summary

This review looked at whether shingles (herpes zoster) infection might increase the risk of developing dementia and if shingles vaccination might reduce that risk. We also looked at whether other adult vaccines reduce the risk of developing dementia.

Dementia is a major health challenge, that comes with substantial personal, societal and healthcare system burden. Even small reductions in dementia risk could have meaningful benefits for individuals, families, and society.

We carried out this review to understand the current evidence and to help decide whether we should update our economic evaluation of shingles vaccination we published in 2024.

### What we found

#### The link between shingles infection and dementia

Some studies report that having shingles may increase the risk of dementia. These studies showed this risk was higher in more severe cases of shingles, and those involving the eye. However, other studies found no clear link. These findings come from studies that do not look for a cause of dementia, so they cannot prove that shingles infection by itself directly increases dementia risk.

People who got antiviral treatment for shingles tended to have a lower risk of dementia than those who did not. Prompt antiviral treatment is already routinely recommended for certain groups to reduce the risk of complications from shingles, including post-herpetic neuralgia. This antiviral treatment could also reduce any additional risk of dementia.

#### The link between shingles vaccination and dementia

All studies that looked at shingles vaccination reported that people who were vaccinated against shingles had a lower risk of developing dementia. The reduction in risk of dementia ranged from about 20% to nearly 40%. However, these studies cannot prove that shingles vaccination reduces the risk of dementia. The reduced risk may also be for other reasons, such as a healthy lifestyle and a lack of other risk factors.

#### The link between other adult vaccines and dementia

Many reviews show that routine vaccines for adults like flu, tetanus/diphtheria/pertussis, hepatitis, and others, are also linked with a lower risk of dementia. For example, the flu vaccine was linked with a lowered risk of 26% to

31%. However, these studies did not consider some key differences between people, so the evidence does not show if vaccination alone caused the lower dementia risk.

### Conclusion

None of the included studies were clinical trials. The information available was about people who chose to get vaccinated rather than those who did not. Often, people who choose to get vaccinated have healthier lifestyles and better access to healthcare, which also lowers dementia risk.

From the available evidence, it is difficult to know how much of the benefit was due to the vaccine itself, or the characteristics of people who got vaccinated. This means that the studies can show links but cannot prove cause and effect.

### **What this means**

While shingles vaccination appears to be linked with a lower risk of dementia, the current evidence is not strong enough to say that the vaccine directly prevents dementia. Also, it is not possible to say by how much the shingles vaccine reduces this risk or what is the best age to get vaccinated. Other vaccines, such as the flu vaccine may also offer some protection against dementia, but again the extent to which they do this is uncertain.

Although the available information is not ideal, it is important to explore what it means for decision-making.

While it is possible that vaccines may offer some protection against dementia, they should be considered alongside other prevention strategies. These include managing blood pressure and cholesterol, staying physically active, not smoking, limiting alcohol, and keeping socially and mentally engaged. Seeking timely medical attention for shingles symptoms is also important. Early antiviral treatment can help reduce the risk of complications from the infection.

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