

# Herpes zoster is linked to increased rates of both stroke and myocardial infarction

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Herpes zoster (also called "shingles") is linked to a transient increased risk of stroke and myocardial infarction (MI) in the months following initial zoster diagnosis, according to a study published by Caroline Minassian and colleagues from the London School of Hygiene and Tropical Medicine, UK, published in this week's *PLOS Medicine*.

The researchers identified 42,954 Medicare beneficiaries aged  $\geq 65$  years who had had a [herpes zoster diagnosis](#) and an ischemic [stroke](#) and 24,237 beneficiaries who had had a herpes zoster diagnosis and an MI during a 5-year period. They then calculated age-adjusted incidence ratios for stroke and MI during pre-defined periods up to 12 months after a diagnosis of zoster relative to time periods when the patient did not have recent zoster (the baseline period). Compared to the baseline period, there was a 2.4-fold increased rate of ischemic stroke and a 1.7-fold increased rate of MI in the first week after herpes zoster. The increased rate of acute cardiovascular events reduced gradually over the 6 months following [herpes](#) zoster. There was no evidence that MI or [ischemic stroke](#) incidence ratios varied between individuals who had been vaccinated against zoster and those who had not been vaccinated.

While the researchers used a self-controlled case series design that controls for fixed confounders, residual confounding by time-varying factors such as major life events or stress may limit the accuracy of the findings. Furthermore, only a few participants in the study were vaccinated, which limits the study's power to detect an effect of vaccination.

The authors say "These findings enhance our understanding of the temporality and magnitude of the association between zoster and acute cardiovascular events."

**More information:** Minassian C, Thomas SL, Smeeth L, Douglas I, Brauer R, Langan SM (2015) Acute Cardiovascular Events after Herpes Zoster: A Self-Controlled Case Series Analysis in Vaccinated and Unvaccinated Older Residents of the United States. *PLoS Med* 12(12): e1001919. [DOI: 10.1371/journal.pmed.1001919](https://doi.org/10.1371/journal.pmed.1001919)

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