

# SARS-CoV-2 vaccine does not increase new-onset seizure risk

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There is no risk for new-onset seizure incidence for individuals receiving a severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) vaccine versus placebo, according to a review published online April 29 in *JAMA Neurology*.

Ali Rafati, M.D., from Iran University of Medical Sciences in Tehran, and colleagues conducted a systematic literature review to identify studies examining seizure incidence among SARS-CoV-2 vaccine recipients versus those receiving [placebo](#).

Based on six randomized [clinical trials](#) (63,521 vaccine and 54,919 placebo recipients), the researchers found that during a 28-day follow-up after injection, there was no statistically significant difference between the groups (nine events in vaccine recipients [0.014 percent] and one event in placebo recipients [0.002 percent]; odds ratio, 2.70; 95 percent confidence interval, 0.76 to 9.57;  $P = 0.12$ ). Similarly, when examining the entire blinded-phase period after injection (median >43 days), there were no significant differences identified for incident new-onset seizure (0.03 percent in vaccine recipients and 0.012 percent in placebo recipients; odds ratio, 2.31; 95 percent confidence interval, 0.86 to 3.23;  $P > 0.99$ ).

"Since the [inflammatory response](#) induced by SARS-CoV-2 infection is probably more prolonged and severe than the SARS-CoV-2 vaccines, the adverse events would be more prevalent and critical; however, it has to be confirmed by future studies," the authors write.

**More information:** Ali Rafati et al, Association of New-Onset Seizures With SARS-CoV-2 Vaccines, *JAMA Neurology* (2024). [DOI: 10.1001/jamaneurol.2024.0967](https://doi.org/10.1001/jamaneurol.2024.0967)

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