

Immunity acquired from a Covid infection is as protective as vaccination against severe illness and death, study finds

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Immunity acquired from a Covid infection provides strong, lasting protection against the most severe outcomes of the illness, according to research published Thursday in [The Lancet](#) — protection, experts say, that’s on par with what’s provided through two doses of an mRNA vaccine.

[Infection-acquired immunity](#) cut the risk of hospitalization and death from a Covid [reinfection](#) by 88% for at least 10 months, the study found.

“This is really good news, in the sense that protection against severe disease and death after infection is really quite sustained at 10 months,” said the senior study author, Dr. Christopher Murray, the director of the Institute for Health Metrics and Evaluation at the University of Washington.

The findings may be a small silver lining to the [explosive omicron outbreak](#) of last winter. With so many people infected, many most likely

still benefit from that protection against severe disease, Murray said.

Still, experts stress that vaccination is the preferable route to immunity, given the risks of Covid, particularly in [unvaccinated people](#).

“The problem of saying ‘I’m gonna get infected to get immunity’ is you might be one of those people that end up in the hospital or die,” Murray said. “Why would you take the risk when you can get immunity through vaccination quite safely?”

The study was the largest meta-analysis to date to look at immunity following infection. It included 65 studies from 19 countries and compared the risk of developing Covid again in people who had recovered from infections to people who hadn’t been infected through September. People who had [hybrid immunity](#), or immunity from both infection and vaccination, were excluded. Omicron subvariants that emerged in the late fall and early winter of last year, including BQ.1 and the now-[dominant XBB.1.5](#), weren’t included.



Two lines on a rapid at-home Covid-19 test indicate a positive result on Dec. 24, 2021, in Brooklyn, N.Y. Andrew Lichtenstein / Corbis via Getty Images file

While protection from severe disease remained high, people could be reinfected — particularly with an [omicron subvariant](#) — consistent with evidence that protection against having symptoms wanes faster than protection against hospitalization and death.

Having Covid before the omicron variant emerged didn't do much to stop reinfection with the mutated version: Protection from reinfection in that case was 74% after one month but fell to 36% by month 10.

Dr. Bob Wachter, the chairman of the department of medicine at the University of California, San Francisco, said he did not expect the protection acquired from infection to be as robust as the meta-analysis found.

“The protection against severe infection, both the extent and the length of it at almost a year, is really surprisingly high,” said Wachter, who was not involved with the research.

Does infection-acquired immunity outperform vaccines?

The immunity generated from an infection was found to be “at least as high, if not higher” than that provided by two doses of an mRNA vaccine, the authors wrote.

While Murray and Wachter agreed that vaccination remains the safest route, having a past Covid infection should at least be considered in policymaking decisions going forward, such as vaccination requirements, they said.

“What Europe did with this evidence made a lot of sense, which is where evidence of past infection was seen as essentially equal to vaccination in terms of requirements to go into events or for employment,” Murray said.

At the very least, he added, officials should accept that evidence of recent infection is equivalent to vaccination.

Notably, the immunity acquired from infection did appear to [wane more slowly](#) than the immunity from two doses of an mRNA vaccine.

However, Murray said a booster dose would return protection to a higher level.

When should I get a Covid booster?

The Centers for Disease Control and Prevention recommends waiting three months after an infection to get a [booster dose](#).

It may be reasonable for people with healthy immune systems to stretch that out a little bit more, to six months, as the immune response continues to develop, said Deepta Bhattacharya, a professor of immunobiology at the University of Arizona.

“We know that the immune response continues to mature over the course of about six months, both for vaccines and for infections,” he said. “Waiting about six months gives you the best bang for your buck.”

Wachter said that while it’s not harmful to get a booster earlier, there is some flexibility with the timing for people who recently had Covid.

“If you are thinking about getting a booster, it’s a perfectly reasonable call to look at this and say I’ll wait six or eight months before getting my booster,” Wachter said. “That’s a reasonable conclusion from looking at the study.”

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