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YOUR HEALTH

## New Clues Emerge About Whether Vaccines Can Help Fight Long Covid

The latest research suggests that vaccinations help reduce the likelihood of developing longer-term symptoms after a Covid-19 infection and may help some people with symptoms feel better.

## By Sumathi Reddy

Millions of people suffer from symptoms of long Covid, doctors estimate. Now, early research is offering some clues about whether vaccinations might help.

When the vaccines first came out, some people who had suffered from debilitating symptoms for months after their initial Covid-19 infections told their doctors they felt better after getting vaccinated. The response intrigued scientists. Now, emerging research suggests that vaccines may help reduce symptoms in some people.

Other recent research indicates that vaccination can reduce the likelihood of developing

long-term Covid-19 symptoms in the first place.

Long Covid is one of the most baffling effects of Covid-19. An estimated 10% to 30% of people develop symptoms that last for months after their initial infection, including fatigue, cognitive problems, shortness of breath or racing heartbeat. Doctors don't fully understand the condition and have few options for treatment.

Studies on long Covid and vaccines are being closely watched. Some officials inside the Biden administration have advocated wide use of vaccine boosters to help prevent Covid-19 infection and further reduce the risk of developing long Covid, The Wall Street Journal has reported.

A September study in the medical journal Lancet found that fully vaccinated people who got a breakthrough infection were about 50% less likely to develop long Covid than unvaccinated people with Covid-19. In the vaccinated group, 5% of people developed long Covid, compared with 11.5% in the unvaccinated group.

"That's a very strong and significant reduction," says Claire Steves, a geriatrician and clinical academic at King's College in London and senior author of the study. Vaccinated people are also far less likely to get infected in the first place, she notes.

Another recent study looked at whether vaccination could help reduce people's symptoms after they developed long Covid. Preliminary findings from a French study in September found that a group of long Covid patients reported an average of 13 symptoms four months after vaccination compared with 15 symptoms before.

The rate of remission in the vaccinated group was 16.6% four months after vaccination, compared with 7.5% in a control group of long Covid patients who didn't get vaccinated. Vaccinated patients also reported that the condition had less of an impact on their lives.

The findings are preliminary and haven't yet been peer-reviewed; they were posted on the preprint server of the Lancet. The study included 455 long Covid patients who got vaccinated after their symptoms developed and 455 people in a control group who have long Covid but didn't get vaccinated. Most of the vaccinated participants in the study had received the Pfizer vaccine.

Viet-Thi Tran, an associate professor of epidemiology at Université de Paris and lead author of the study, hypothesizes that vaccination may eradicate a viral reservoir in the body that may be causing long-term symptoms in some patients. But he says it is also possible that there is a placebo effect—patients feel better after getting vaccinated because they expect to.

Akiko Iwasaki, a professor of immunobiology at Yale University who studies long Covid, says the French study is the first large-scale look at the impact of vaccines on long Covid patients. (She wasn't involved in the French study.) The findings are consistent with the theory that vaccination may clear out some remaining virus that is triggering symptoms, she says. If that were the case, a patient's improvement after vaccination would be permanent.

The findings could also support the idea that long Covid may be caused by an autoimmune reaction, Dr. Iwasaki says. In that case, vaccination may temporarily dampen the secretion of toxic cytokines, a type of protein, providing patients with temporary relief.

Previously, surveys done by long Covid patient groups found that some people felt better or reported fewer symptoms after getting vaccinated. And a small preliminary study of 44 vaccinated patients in the United Kingdom found a small improvement in symptoms compared with 22 unvaccinated long Covid patients, as well as a decrease in worsening symptoms and an increase in symptom resolution.

Dr. Iwasaki is conducting her own study on the effect of vaccination on long Covid patients, and expects to have preliminary results in a few months.

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David Putrino, director of rehabilitation innovation at Mount Sinai Health System in New York, has more than 400 long Covid patients in a rehab program. About half have reported feeling better after getting vaccinated, while the other half say they feel the same or worse. He believes the French study is "compelling" in its finding that "the vaccine is modulating symptoms," he says, but thinks it is important to better understand why some people feel better and others don't.

Daniel Griffin, chief of the division of infectious diseases for ProHealth NY in New Hyde Park, N.Y., says roughly 60% of the network's long Covid patients report feeling better after getting vaccinated.

Two patients whom he is treating for long Covid, Carol and Edward Alexander, had different responses after getting vaccinated. Three weeks after her second shot, "for the first time in more than a year I did not have a sore throat or a headache," says Ms.

Alexander, a 65-year-old editor and poet who lives with her husband in Manhattan. Yet her husband felt worse for a while and then eventually returned to how he felt before getting vaccinated.

"What we're seeing usually is improvement but not complete recovery," Dr. Griffin says. "So now I can smell again. Now I can go up that flight of stairs again. I can go back to work but I still need to lay down when I get home."

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