

How well do COVID vaccines protect after organ transplant?

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In this Dec. 29, 2020 file photo, Penny Cracas, with the Chester County, Pa., Health Department, fills a syringe with the Moderna COVID-19 vaccine in West Chester, Pa. A new study raised questions about how well COVID-19 vaccines protect organ transplant recipients—and what precautions people with suppressed immune systems should take after the shots. On Monday, March 15, 2021 researchers at Johns Hopkins University reported a first attempt to find out. They tested 436 people who had received new organs in recent years and were getting the Pfizer or Moderna vaccines. (AP Photo/Matt Slocum, File)

A new study raised questions about how well COVID-19 vaccines protect organ transplant recipients—and what precautions people with suppressed immune systems should take after the shots.

Vaccines rev up the immune system to recognize the virus, something that's harder to do if someone's immune cells aren't in good working order. Transplant recipients take powerful immune-suppressing drugs to prevent organ rejection, which also increases their risk from the coronavirus—but excluded them from vaccine studies.

Specialists say the shots appear safe for [transplant recipients](#) and any protection is better than none. But how much protection do they get?

On Monday, researchers at Johns Hopkins University reported a first attempt to find out. They tested 436 people who had received new organs in recent years and were getting the Pfizer or Moderna vaccines. A few weeks after the first dose, 17% of the transplant recipients had developed antibodies against the coronavirus, said Dr. Dorry Segev, a Hopkins transplant surgeon who co-authored the study.

Segev acknowledged transplant recipients may fare better after the needed second dose—he'll also check that—but prior studies show the first shot is enough to kickstart antibody production in just about everybody with a well-functioning [immune system](#).

Of most concern, people whose transplant medications include a type called an anti-metabolite were far less likely to respond to the shot than those who don't require that kind of drug, the team reported in the *Journal of the American Medical Association*.

The findings come after the U.S. Centers for Disease Control and Prevention said fully vaccinated people can relax some, but not all, of the masking and distancing precautions against the coronavirus.

Segev called on CDC to consider a more nuanced message.

"From what we know, transplant patients cannot assume that they are safe after being vaccinated," Segev said. They may need post-vaccination blood tests to be sure, he added.

The CDC didn't immediately comment.

Dr. David Mulligan, Yale University's chief of transplant surgery and immunology, said Monday's report is a disappointment but not a surprise, because people with weak immune systems don't respond as well to other vaccines.

Some transplant groups, including the American Society of Transplantation, already have issued [cautions](#) about that.

Yale's Mulligan urged patients to check in with their transplant center for advice. Those waiting for a life-saving organ transplant might be able to get vaccinated first. He said some people who've already had a [transplant](#) might be good candidates to temporarily cut back on certain immune-suppressing drugs. And the immune-compromised should be sure to get both [vaccine](#) doses for the best chance at protection.

"Our patients are already calling" for advice, Mulligan said. "Until you've had your antibodies checked and you know, boy, I've got a vigorous immune response—or we've got better data," the immune-compromised shouldn't let down their guard against the virus.

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