

# Study shows young COVID survivors can get reinfected

4 February 2021, by Alan Mozes



(HealthDay)—Being infected with the virus that causes COVID-19 is not a foolproof shield against reinfection, a small preliminary study warns.

The finding stems from tracking nearly 3,250 young U.S. Marine recruits between May and October. Of those, 189 had previously tested positive for the SAR-CoV-2 virus. During the six-week study itself, 10% of those who had tested positive got reinfected.

"You don't have a get-out-of-jail-free card just because you have [antibodies](#) from a previous [infection](#)," said study author Dr. Stuart Sealfon.

He's a professor of neurology at Icahn School of Medicine at Mount Sinai in New York City, which conducted the study in collaboration with the Naval Medical Research Center.

The findings were recently published in the preprint server *medRxiv* and have not been peer-reviewed.

All the Marines were beginning basic training and were initially held in Navy quarantine for two weeks, after two weeks of at-home quarantine, according to the study. Once training began, recruits were tested for COVID-19 every two weeks over a six-week period.

The result: 19 of the 189 recruits who already had COVID tested positive for a second infection during the study.

Researchers said first- and second- infections involved the same strain of the SARS-CoV-2 virus and none involved the new, more transmissible U.K., South African or Brazilian strains that have raised alarm in recent weeks.

Of 2,247 recruits who had not previously had COVID, 1,079 (48%) became infected during the study.

That means recruits with a prior COVID infection "had about a fifth the risk for getting infected again when in basic training, compared with Marines who had not been previously infected and didn't have antibodies," Sealfon said.

All those who tested positive during the study had "mild" symptoms, he said. None were hospitalized. But symptom risk and length of infection were the same, regardless of prior COVID history.

"The only difference was that the amount of virus on our swab tests was a little bit lower in the Marines with antibodies" from a prior infection, Sealfon said.

Reinfected Marines also had lower levels of antibodies from their initial bout, compared with Marines who didn't get reinfected.

"Two-thirds of the 19 Marines who were reinfected didn't have measurable neutralizing antibodies," Sealfon noted, suggesting that some people who

get infected don't generate antibodies.

The good news: Having antibodies after infection does protect you against reinfection. The bad news: Even if you've had COVID, there remains a risk you'll get it again.

"That might not cause problems for the patient, and certainly young people—like those in our study—are mostly asymptomatic," Sealfon said. "But it certainly can mean that there is a risk that they can then transmit a new infection to those who are more vulnerable."

That means mask-wearing, social distancing and getting vaccinated will still be important, regardless of your prior infection history.

"Vaccination to provide additional protection is still warranted for those who've been infected," Sealfon said. "Because we know that you certainly boost your antibody response with vaccination, even if you already have antibodies."

But Dr. Sandro Cinti, a professor of infectious disease at Michigan Medicine at the University of Michigan in Ann Arbor, said it's best not to read too much into these findings.

"These are early results, with a very small number of patients," he noted. "You have to be very careful interpreting all the COVID studies that are coming out now, many of which have not been peer-reviewed."

Cinti said a viral infection typically does provide protection from further infection.

"Is there the possibility of reinfection with COVID? Maybe," he said. "But none of these studies answer that question anywhere near definitively. The only thing definitive is that we just don't really know."

The U.S. Centers for Disease Control recommends everyone 18 and older get vaccinated—whether or not they have had COVID, Cinti said.

"It makes sense because we know the protection rate with vaccination is about 95%, and we don't know what the protection rate is for COVID

patients," he said. "I suspect it's also that high, but we don't know that."

If the goal is to reach herd immunity, "you probably want to aim at getting everyone vaccinated," Cinti said.

**More information:** Learn more about your risk for COVID reinfection from the [U.S. Centers for Disease Control and Prevention](#).

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APA citation: Study shows young COVID survivors can get reinfected (2021, February 4) retrieved 20 September 2022 from <https://medicalxpress.com/news/2021-02-young-covid-survivors-reinfected.html>

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