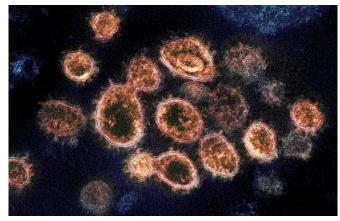


## Studies find having COVID-19 may protect against reinfection

24 December 2020, by Marilynn Marchione



This 2020 electron microscope image provided by the National Institute of Allergy and Infectious Diseases -Rocky Mountain Laboratories shows SARS-CoV-2 virus particles which cause COVID-19, isolated from a patient in the U.S., emerging from the surface of cells cultured in a lab. According to two new studies released on Tuesday, Dec. 22, 2020, people who have antibodies from infection with the coronavirus seem less likely to get a second infection for several months and maybe longer. (NIAID-RML via AP)

Two new studies give encouraging evidence that having COVID-19 may offer some protection against future infections. Researchers found that people who made antibodies to the coronavirus were much less likely to test positive again for up to six months and maybe longer.

The results bode well for vaccines, which provoke the <u>immune system</u> to make antibodies—substances that attach to a virus and help it be eliminated.

Researchers found that people with antibodies from natural infections were "at much lower risk ... on the order of the same kind of protection you'd get from an effective vaccine," of getting the virus again, said Dr. Ned Sharpless, director of the U.S. National Cancer Institute.

"It's very, very rare" to get reinfected, he said.

The institute's study had nothing to do with cancer—many federal researchers have shifted to <u>coronavirus</u> work because of the pandemic.

Both studies used two types of tests. One is a <u>blood test</u> for antibodies, which can linger for many months after <u>infection</u>. The other type of <u>test</u> uses nasal or other samples to detect the virus itself or bits of it, suggesting current or recent infection.

One study, published Wednesday by the *New England Journal of Medicine*, involved more than 12,500 <u>health workers</u> at Oxford University Hospitals in the United Kingdom. Among the 1,265 who had coronavirus antibodies at the outset, only two had positive results on tests to detect active infection in the following six months and neither developed symptoms.

That contrasts with the 11,364 workers who initially did not have antibodies; 223 of them tested positive for infection in the roughly six months that followed.

The National Cancer Institute study involved more than 3 million people who had antibody tests from two private labs in the United States. Only 0.3% of those who initially had antibodies later tested positive for the coronavirus, compared with 3% of those who lacked such antibodies.

"It's very gratifying" to see that the Oxford researchers saw the same risk reduction—10 times less likely to have a second infection if <u>antibodies</u> were present, Sharpless said.

His institute's report was <u>posted on a website</u> scientists use to share research and is under review at a major medical journal.

The findings are "not a surprise ... but it's really



reassuring because it tells people that immunity to the virus is common," said Joshua Wolf, an infectious disease specialist at St. Jude Children's Research Hospital in Memphis who had no role in either study.

Antibodies themselves may not be giving the protection, they might just be a sign that other parts of the immune system, such as T cells, are able to fight off any new exposures to the <u>virus</u>, he said.

"We don't know how long-lasting this immunity is," Wolf added. Cases of people getting COVID-19 more than once have been confirmed, so "people still need to protect themselves and others by preventing reinfection."

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