

# COVID-19 Immunity Could Last Longer Than 8 Months, Study Says

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*Editor's note: Find the latest COVID-19 news and guidance in Medscape's [Coronavirus Resource Center](#).*

Certain antibodies and memory cells likely last more than 8 months after someone has contracted the coronavirus, especially if they have a strong immune response to COVID-19, according to a [new study](#) published Wednesday in *Science*.

Antibodies to the spike protein on the coronavirus were relatively stable after 6 months, and spike-specific memory B cells were higher at 6 months than the first month after infection. The number of memory T cells declined in about 4 to 6 months, but there were some that lasted.

"That amount of memory would likely prevent the vast majority of people from getting hospitalized disease, severe disease, for many years," Shane Crotty, the senior author and a virologist at the La Jolla Institute for Immunology, La Jolla, California, [told \*The New York Times\*](#).

The research team analyzed 254 blood samples from 188 COVID-19 patients across the country who had a range of disease, including asymptomatic, mild, moderate, and severe cases. Most had a mild case of COVID-19, and 93% were never hospitalized. Researchers also looked at 43 samples taken more than 6 months after symptoms started, up to 8 months post-infection.

They found that neutralizing antibodies were stable between 1 to 8 months after infection and that these antibodies gradually declined over time but seemed to last.

Memory B cells, which remember a virus to make antibodies, increased during the first 4 months after infection and then plateaued but lasted in nearly all of the cases after 8 months.

Memory T cells, which recognize antigens on a virus and trigger an immune response, appeared within a month of infection and began a slow decline about 4 to 6 months after infection but also lasted. This is similar for other viruses that cause the [flu](#) and [yellow fever](#).

Specific "helper" T cells necessary for creating neutralizing antibodies and long-lasting immunity were present in nearly all of the samples analyzed and lasted for more than 6 months.

Antibodies and memory B cells were higher in the patients who were hospitalized, which could mean that those with more severe COVID-19 may build up greater long-term immunity.

Overall, 64% of the cases had all five of the immune memory responses that were studied, appearing in the first or second month after infection. After 5 to 8 months, that dropped to 43%. However, 95% of the patients still had at least three of the five immunity categories after 5 months.

Although researchers can't make direct conclusions about COVID-19 immunity based on the levels of antibodies or memory cells in the samples, the findings seem promising. This might mean that an immune response could reduce reinfections, viral load, and disease severity in patients in the future. A few COVID-19 reinfections have been reported, but they tend to be asymptomatic or less severe, the authors wrote.

"Durable immunity against secondary COVID-19 disease is a possibility in most individuals," they wrote.

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