

# Questions (and Answers) About Viral Monoclonal Antibodies



## What are monoclonal antibodies?

An antibody is a protein made by your body's immune system that helps protect you from illnesses. The protection you get from these antibodies is called immunity. There are a few different kinds of antibodies. Some attach to viruses or bacteria and block them from activating inside a person's cells. These antibodies are made naturally once our bodies are infected with or vaccinated against a virus.

Antibodies that recognize one specific part of a virus or bacterium can be copied in a laboratory. The lab-made antibodies are called monoclonal antibodies. Monoclonal antibodies may be given to people to prevent infection or to treat an existing infection.

## Are monoclonal antibodies used to prevent COVID-19? Do they treat COVID-19?

Both. Clinical trials for monoclonal antibodies against SARS-CoV-2, the virus that causes COVID-19, are looking to see whether these antibodies can:

- Prevent infection with SARS-CoV-2
- Prevent the development of more severe cases of COVID-19
- Reduce the symptoms of COVID-19

## We are still learning about how well these monoclonal antibodies work to prevent or treat COVID-19. Here's what we know so far:

Monoclonal antibodies have shown some early success for people who have COVID-19 with mild to moderate symptoms.

The Food and Drug Administration (FDA) has authorized emergency use of [some monoclonal antibody treatments](#) for patients with mild to moderate COVID-19 symptoms who are [at high risk](#) of getting very sick with COVID-19.

- In one clinical trial, receiving these antibodies soon after testing positive for COVID-19 lessened the likelihood that these high-risk patients would need medical attention.
- A different study of a monoclonal antibody treatment found that it reduced the risk of nursing home residents and staff getting COVID-19.

However, [some studies of these treatments](#) have shown little impact on patients who are already sick enough to require hospitalization.

## Who can participate in a monoclonal antibody study?

- Studies of monoclonal antibodies are currently recruiting volunteers. Some are seeking people who do not have COVID-19 to study whether the antibodies can prevent it; others are seeking people with COVID-19 — some who have mild symptoms and some who have been hospitalized — to see whether the antibodies can help people safely recover from COVID-19.
- [CombatCOVID.hhs.gov](https://www.combatcovid.hhs.gov) has more information about these antibody trials and other COVID-19 studies.

Researchers continue to study how laboratory-made antibodies may help prevent and treat COVID-19 infection. These studies look at how the antibodies work on their own and in combination with other treatments.

### **Can monoclonal antibodies give me COVID-19?**

No. The antibodies are designed to bind to SARS-CoV-2 and prevent it from activating inside healthy cells in the body. They cannot give you SARS-CoV-2 or make you sick with COVID-19.

### **What is the difference between monoclonal antibodies and a COVID-19 vaccine?**

Vaccines for COVID-19 (and other viral diseases) are designed to stimulate the body to make antibodies against it. Monoclonal antibody treatments are made in the lab and given to people to fight the virus directly rather than helping the body produce its own antibodies.

Antibodies produced naturally by your body in response to a vaccine can last for a long time,

but these laboratory-made antibodies usually last for only a few months. This shortened protection time requires people to get multiple antibody infusions or injections on a regular schedule. New monoclonal antibodies are engineered to last longer so that people need fewer doses of the antibody over time. However, to prevent infections over the long term, vaccines are still more effective than monoclonal antibodies.

### **Do we still need monoclonal antibodies to prevent COVID-19 now that vaccines are available?**

Developing monoclonal antibodies for preventing COVID-19 is still important, because these antibodies may:

- Become another prevention option in addition to vaccines
- Provide immediate protection or treatment for people who are exposed to COVID-19 and haven't been vaccinated yet
- Be a better option for people whose immune systems do not work as well as others and who will not get good protection from a vaccine

**Learn more about COVID-19 prevention and treatment at <https://covid19community.nih.gov/>.**