

# Get the Facts on the COVID-19 Vaccines

## How does the COVID-19 vaccine approval process work?

In the United States, vaccines must be approved by the U.S. Food and Drug Administration (FDA) before they can be used. The FDA bases its decision on data from clinical trials. The data is reviewed by independent experts, career scientists and physicians at the FDA who are not politically appointed and are experts in vaccine safety and effectiveness.

The scientists look for unexpected side effects that the vaccine might have caused, which helps determine its safety. In general, the fewer and less severe the side effects are, the more the vaccine is considered safe. If the clinical trial data show enough evidence of efficacy and safety, the FDA will approve the vaccine and license it for use in the United States.

## COVID-19 vaccines were developed in record time, but are they safe?

The messenger RNA (mRNA) vaccines produced by Pfizer and Moderna are faster to develop using new technology and they do not require vaccine manufacturers to produce protein or weakened pathogen for the vaccine. These mRNA vaccines are safe and no riskier than tried and tested ones, like the childhood measles vaccine.

## Did clinical trials for the COVID-19 vaccines include those most affected by the virus, especially Black, Latinx and older people?

Yes. While vaccines work the same in people of different races or ethnicities, it is important to make sure vaccines are tested in diverse population groups before they are released. The phase 3 clinical trials conducted by Pfizer and Moderna included participants from the population groups most at risk for COVID-19.

In Pfizer's U.S. trial, 13.1 percent of participants were Hispanic or Latinx, 10.1 percent were Black and 5.5 percent were Asian American. About 45 percent of participants were between 56 and 85 years of age.

Moderna reported that 20 percent of participants identified as Hispanic or Latinx and 10 percent identified as Black or African American. Moderna also said that its trial included 23.3 percent of participants who were over the age of 65, as well as 16.7 percent of participants who had high-risk chronic diseases, such as diabetes, severe obesity and cardiac disease.

## Can I get COVID-19 from the vaccines?

No. The Pfizer and Moderna vaccines do not contain the virus. Instead, they contain instructions for your cells called "messenger RNA," which tells your cells to make the COVID-19 spike protein. Once your cells make the spike

protein, your immune system will make the antibodies that fight COVID-19 and protect you from getting sick from this virus.

## Do the COVID-19 vaccines have side effects?

Some people will experience mild to moderate side effects, particularly after the second dose of a vaccine, that may include pain at the injection site, fever, fatigue, and aching muscles and joints for a day or two.

## Can I get COVID-19 after being vaccinated?

It typically takes a few weeks for the body to build immunity after vaccination. That means it's possible a person could be infected with the virus just before or just after vaccination and get sick. This is because the vaccine has not had enough time to provide protection.

## If I already had COVID-19, do I need to get a vaccine?

There is not enough information currently available to say if or for how long after infection someone is protected from getting COVID-19 again. Early evidence suggests natural immunity from COVID-19 may not last very long. Therefore, vaccination is still recommended.

## Will I still need to wear a mask and practice social distancing once I get a vaccine?

Yes. The Pfizer and Moderna vaccines are 94 to 95 percent effective in protecting you from getting very sick with the virus, but it will not prevent you from spreading the virus to other people. Therefore, we will still need to wear masks and practice physical social distancing until a large proportion of the population is vaccinated and we are sure the vaccines provide long-term protection.

## What does "herd immunity" mean?

If a vaccine not only protects against disease but reduces transmission, and continues to do so for many years, we are likely to reach a state of herd immunity (or herd protection) when masks and social distancing will no longer be required. Herd protection is achieved when a sufficient proportion of the population is made non-infectious.

## Can I mix and match COVID-19 vaccines?

No. If you get a two-dose vaccine, your second dose must be from the same vaccine as the first dose. The Pfizer and Moderna vaccines require two doses to be maximally effective. The second dose of Pfizer's vaccine is given 21 days after the first dose. The second dose of Moderna's vaccine is given 28 days after the first dose. Since the vaccines differ in composition, storage and time between the two doses, people must take the same vaccine for both doses.