



### Why should I get a COVID-19 vaccine?

COVID-19 can have serious, life-threatening complications. Even mild disease can have long-lasting effects that interfere with your work and personal life.

There is no way to know how COVID-19 will affect you. If you get sick, you could spread the disease to friends, family, and others around you.

Unvaccinated people in all age groups have a greater risk of testing positive for COVID-19 and a greater risk of dying from COVID-19 than people in the same age group who are fully vaccinated.

The benefits of getting vaccinated far outweigh the very small risks. And the risk of severe illness and death from COVID-19 far outweighs any vaccine risk.

Talk to your pharmacist or other trusted health care professional if you have any questions or need more information about COVID-19 vaccines.

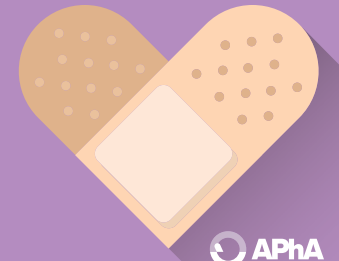
For the latest information about COVID-19 vaccine safety and effectiveness, scan the QR code with your smartphone camera or visit [www.cdc.gov/coronavirus/2019-ncov/vaccines/vaccine-benefits.html](http://www.cdc.gov/coronavirus/2019-ncov/vaccines/vaccine-benefits.html)

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[www.pharmacist.com](http://www.pharmacist.com)

# COVID-19 Vaccines Are Effective and Safe



 **VaccineConfident**

*There are several types of vaccines available for use in the United States to prevent COVID-19:*

- > **Messenger RNA (mRNA) vaccines.** The vaccines from Pfizer-BioNTech and Moderna are examples of mRNA vaccines. The mRNA vaccines are preferred for most people.
- > **Viral vector vaccines.** The Johnson & Johnson/Janssen vaccine is an example of a viral vector vaccine.
- > **Protein subunit vaccines.** The Novavax vaccine is an example of a protein subunit vaccine with an adjuvant. An adjuvant is an ingredient used in some vaccines to help create a stronger immune response in people receiving the vaccine.

All of these COVID-19 vaccines are safe and effective and reduce your risk of severe illness. Vaccination can reduce the spread of disease, which helps protect both you and the people around you.

### How could these vaccines be developed so quickly?

Many people don't realize that the COVID-19 vaccines followed the same process and completed all of the same steps that would be used for any new vaccine.

Because it was so important to come up with effective vaccines as quickly as possible, a number of steps that usually would happen one at a time—one after another—were performed at the *same* time.

Usually, the steps are performed one after another because manufacturers have a lot to lose in the vaccine development process. They can't afford to spend too much money on a vaccine that turns out not to work or not to be safe. So, they wait for results from each step before moving to the next one.

For the COVID-19 vaccines, the federal government spent billions of dollars to take away the financial risk and speed up the vaccine development process. The clinical trials involved tens of thousands of volunteers from many different backgrounds, races, ethnicities, and geographic areas. Because the virus is so contagious and widespread, it did not take much time to figure out how effective the vaccines were at protecting people from COVID-19. The pandemic served as the test lab to see how well the vaccines were working.

Additionally, because of the large financial investment by the federal government, companies began manufacturing vaccine doses much, much earlier than usual—while the clinical trials were still going on. The companies did this with the understanding that the doses would have to be thrown out if the FDA did not authorize the vaccine for emergency use.

### Do the vaccines use brand new technology?

No, they don't. The mRNA technology has been studied since the 1990s. Scientists were already starting to test it in vaccines for other viruses such as influenza.

Viral vector technology has been studied since the 1970s. Other viral vector vaccines are already used around the world, including one for Ebola virus.

If you have been vaccinated against hepatitis B, you may already have received a protein subunit vaccine. Vaccines using protein subunit technology have been available since the 1980s.

### How effective are the COVID-19 vaccines?

During a dangerous pandemic like COVID-19, the most important role of a vaccine is to keep people from getting severe illness, keep them out of the hospital, and stop them from dying.

All of the COVID-19 vaccines reduce the risk of severe illness and death among people who are fully vaccinated. Data from clinical trials and evidence from real-world vaccine effectiveness studies show that COVID-19 vaccines help protect against COVID-19 infections. Vaccine effectiveness against hospitalizations has remained relatively high over time, although it tends to be slightly lower for older adults and people with weakened immune systems.

No vaccine is 100% effective at preventing illness. Some people who are fully vaccinated will still get COVID-19, with or without symptoms (asymptomatic infections). This is called a breakthrough infection. Even when people who are fully vaccinated develop symptoms of COVID-19, they tend to be less severe than in people who are unvaccinated.

Studies have shown some declines in vaccine effectiveness against infections over time, especially when the Delta variant was circulating widely. The CDC recommends vaccine booster shots for most people.

### How safe are the COVID-19 vaccines?

The COVID-19 vaccines are very safe. More than 500 million doses of COVID-19 vaccine have been given in the United States. Reports of serious safety problems or death after COVID-19 vaccination are rare.

The COVID-19 vaccines have undergone, and continue to undergo, the most intensive safety monitoring in U.S. history. This monitoring includes using both established and new safety monitoring systems to make sure that COVID-19 vaccines are safe.