How will a vaccine prevent COVID-19?

A vaccine lowers a person’s chances of getting COVID-19 if they are exposed to the coronavirus. COVID-19 vaccines help the body’s immune system identify and then fight off infection from the virus. A person can’t get COVID-19 from a vaccine. The vaccines available in the U.S. contain proteins to help the body identify the virus, but the vaccine can’t cause a person to get the coronavirus.

Vaccines can also limit spread through communities. If most people in a community get vaccinated, the virus will not infect as many people.

See: COVID-19 Vaccine: What You Need to Know (Johns Hopkins Medicine)

How many vaccine doses do I need?

To offer the most protection, the COVID-19 vaccines currently available in the U.S. require two doses, or shots, taken three to four weeks apart. When you schedule the date for your first dose, be sure you will be available for the second dose three to four weeks later.

See: Frequently Asked Questions about COVID-19 Vaccination (CDC)

Will I need to get a COVID-19 vaccine each year?

At this time, doctors and researchers are still learning how long protection from the vaccine will last. The coronavirus is still so new that researchers will have to monitor people for an extended period of time to learn more.

See: COVID-19 Vaccine: What You Need to Know (Johns Hopkins Medicine)
How effective are the COVID-19 vaccines?

Both Pfizer and Moderna report that their vaccines are about 95% effective at preventing symptoms of COVID-19, including severe illness. This is much higher than the U.S. Food and Drug Administration (FDA) requires. It may still be possible to get COVID-19 after getting a vaccine, but it’s more likely that symptoms will be significantly less severe. For example, if you get COVID-19 after getting vaccinated, you’re less likely to need an intensive care unit (ICU) hospital stay.

See:

[COVID-19 Vaccination Information for Patients and the Public](https://www.jhu.edu) (Johns Hopkins Medicine)

[Myths and Facts about COVID-19 Vaccines](https://www.cdc.gov) (CDC)

[A COVID-19 Vaccine May Be Only 50% Effective. Is That Good Enough?](https://www.npr.org) (NPR)

If I get vaccinated for the coronavirus, do I still have to wear a mask? Do I still have to practice physical distancing?

Yes. While vaccines may prevent you from getting sick, it is unknown at this time if you can still carry and transmit the virus to others. Also, it will take time to get vaccines to everyone who wants them. Until then, masking and physical distancing are important ways to prevent spread of the virus.

While researchers and doctors learn more about how COVID-19 vaccines protect people under real-life conditions, it’s important for everyone to continue using **all the tools** available to stop the spread of COVID-19.

To protect yourself and others, you should do the following:

- Wear a mask over your nose and mouth
- Stay at least six feet away from others
- Avoid crowds
- Avoid poorly ventilated spaces
- Wash your hands often

Getting both doses of the COVID-19 vaccine and following CDC recommendations on [how to protect yourself and others](https://www.cdc.gov) will provide the best protection from getting and spreading COVID-19.

See:

[COVID-19 Vaccine: What You Need to Know](https://www.jhu.edu) (Johns Hopkins Medicine)

[Frequently Asked Questions about COVID-19 Vaccination](https://www.cdc.gov) (CDC)
How do we know COVID-19 vaccines are safe?

To be declared safe and effective, a COVID-19 vaccine must pass certain tests and meet certain standards. Organizations such as the FDA use scientific data from research to help decide if and when new vaccines can become available to the public. Pharmaceutical companies use clinical trials to determine the safety and effectiveness of a vaccine. In a clinical trial, one group of volunteers is given the vaccine and one group is given a placebo, a shot that isn’t the vaccine. Neither group knows if they got the vaccine or the placebo. Scientists then compare the groups and monitor for safety and side effects. Once these trials are complete and if the results are acceptable, the FDA can approve the vaccine for general use. Even though the COVID-19 vaccines were made available quickly, they went through the required steps in the approval process.

Even after a vaccine is approved and in widespread use, the FDA and other reviewers continue to closely monitor people who have had the vaccine to gather more data on the protection the COVID-19 vaccines offer. To date (February 2021), almost 41 million people in the U.S. have received at least one dose of a COVID-19 vaccine.

See:
- COVID-19 Vaccine: What You Need to Know (Johns Hopkins Medicine)
- Frequently Asked Questions about COVID-19 Vaccination (CDC)
- Vaccines FAQ (Johns Hopkins University & Medicine Coronavirus Resource Center)

Are there side effects?

Pharmaceutical companies report some side effects related to COVID-19 vaccines. These include pain at the injection site, fever, muscle aches, fatigue and headaches. Most side effects last about a day or two. Although these side effects may sound unpleasant, they are a sign that the vaccine is working.

If you decide to get vaccinated, keep track of your symptoms. If symptoms last longer than two days, you should call your doctor. If you don’t have a doctor you can call, then call your public health department or your local community health center.

One way the CDC is collecting more data about the side effects of COVID-19 vaccines is through the use of v-safe, the CDC’s new smartphone-based tool, which is accessible online (not as an app). Individuals receiving the vaccine are encouraged to enroll in v-safe. The CDC uses this tool to check on people’s health after they receive a COVID 19 vaccine.

See:
- COVID-19 Vaccination Information for Patients and the Public (Johns Hopkins Medicine)
- COVID-19 Vaccine: What You Need to Know (Johns Hopkins Medicine)
- What is v-safe? (CDC)
When will it be my turn to get vaccinated for COVID-19?
The CDC makes recommendations for who should get vaccinated first. This includes having different phases, starting with healthcare workers and people who live in long-term care facilities. But each state makes its own plan. You can select your state at this website to see how vaccines will be distributed in your area.

See: COVID-19 Vaccine Information for Specific Groups (CDC)

Do I still need the vaccine if I’ve already had COVID-19 or tested positive for COVID-19 when I didn’t have symptoms?
People who have already had COVID-19 or tested positive but didn’t have symptoms may still benefit from getting the COVID-19 vaccine. The protection someone gains from having an infection (called “natural immunity”) varies depending on the disease, and it varies from person to person. Because this virus is new, we don’t know how long natural immunity might last.

Early evidence suggests natural immunity from COVID-19 may not last long. But more studies are needed to better understand this.

See: Frequently Asked Questions about COVID-19 Vaccination (CDC)

Does the vaccine work for different strains of the coronavirus?
Doctors and researchers have found different strains, or variants, of the coronavirus. They are still learning whether existing COVID-19 vaccines are effective for different strains.

See:

About Variants of the Virus that Causes COVID-19 (CDC)

Vaccines FAQ (Johns Hopkins University & Medicine Coronavirus Resource Center)
**Do these vaccines work well for everyone?**

COVID-19 has disproportionately affected communities of color. We understand that certain racial/ethnic groups have had experiences with the medical community that influence their safety concerns. Both the Pfizer and Moderna vaccine trials included about 10% Black or African-American participants, about 20% Hispanic or Latinx participants and about 5% Asian participants.

Pfizer and Moderna vaccine trials also looked at other groups that are at high risk for severe COVID-19 illness, including older adults and people with chronic conditions. Both trials included about 20% of participants who were age 65 or older. In the Pfizer trial, about 35% of participants had chronic conditions such as obesity, diabetes and chronic lung disease. In the Moderna trial, about 22% had chronic conditions.

Following standard practice for approved vaccines, the FDA and other reviewers continue to closely monitor these specific groups, along with the general population, for both safety and effectiveness.

See:

- [FDA briefing document for Pfizer COVID-19 vaccine](#)
- [FDA briefing document for Moderna COVID-19 vaccine](#)
- [Racial Diversity within COVID-19 Vaccine Clinical Trials: Key Questions and Answers](#) (Kaiser Family Foundation)
- [What about safety of the COVID-19 vaccination for diverse groups of people?](#) (Johns Hopkins Medicine)
- [Vaccines FAQ](#) (Johns Hopkins University & Medicine Coronavirus Resource Center)

**Can children receive a COVID-19 vaccine?**

Pfizer’s vaccine is approved for people age 16 and older. Moderna’s vaccine is approved for people age 18 and older.

No vaccine is authorized for children under the age of 16 at this time. When guidance from the CDC and other health agencies allows, vaccines may be approved for use for younger teenagers and children. It may be late 2021, or even in 2022, before a vaccine for children under age 12 is available.

See: [Vaccines FAQ](#) (Johns Hopkins University & Medicine Coronavirus Resource Center)
Is it safe for me to get a COVID-19 vaccine if I am pregnant?

People who are pregnant are at higher risk for severe illness from COVID-19. To date, however, no COVID-19 vaccine study has specifically evaluated people who are pregnant. At this time, the FDA and the CDC believe COVID-19 vaccines are unlikely to pose a risk for people who are pregnant. However, since limited data is available on the safety of COVID-19 vaccines for this group, it’s always a good idea to talk with your doctor about the risks and benefits.

More information from additional studies will be available in the coming months. If you are pregnant, call your doctor for medical advice. If you don’t have a doctor you can call, then call your public health department or your local community health center.

One way the CDC is collecting more data about the safety of COVID-19 vaccines during pregnancy is through the use of v-safe, the CDC’s new smartphone-based tool, which is accessible online (not as an app). Pregnant women, as well as other people who have been vaccinated, are encouraged to enroll in v-safe. The CDC uses this tool to check on people’s health after they receive a COVID-19 vaccine.

See:

COVID-19 Vaccination Considerations for People Who Are Pregnant (CDC)
Frequently Asked Questions about COVID-19 Vaccination (CDC)
Vaccines FAQ (Johns Hopkins University & Medicine Coronavirus Resource Center)
What is v-safe? (CDC)

Is it safe for me to get a COVID-19 vaccine if I am breastfeeding?

To date, no COVID-19 vaccine study has specifically evaluated breastfeeding women. The Pfizer and Moderna COVID-19 vaccines available in the U.S. don’t contain a live virus, so experts at the FDA and CDC don’t think they pose a risk to a breastfeeding baby. For this reason, these experts don’t believe there’s a need for women to delay or stop breastfeeding if they are vaccinated.

More information from additional studies will be available in the coming months. If you are breastfeeding, call your doctor for medical advice. If you don’t have a doctor you can call, then call your public health department or your local community health center.

See:

Vaccination Considerations for People who are Pregnant or Breastfeeding (CDC)
COVID-19 Vaccination Information for Patients and the Public (Johns Hopkins Medicine)
Is it safe for me to get a COVID-19 vaccine if I want to be pregnant in the future?

Yes, it is. The COVID-19 vaccine will not affect fertility for women who want to be pregnant in the future.

If you are actively trying to conceive, you don’t need to avoid pregnancy once you’ve completed both shots of the COVID-19 vaccine.

Call your doctor for medical advice related to your health needs. If you don’t have a doctor you can call, then call your public health department or your local community health center.

See:

COVID-19 Vaccination Information for Patients and the Public (Johns Hopkins Medicine)
COVID-19 Vaccination Considerations for People Who Are Pregnant (CDC)
Vaccinating Pregnant and Lactating Patients Against COVID-19 (American College of Obstetricians and Gynecologists)

If COVID-19 is spreading in my community, do I still need a flu shot?

Yes. Getting a flu shot can help protect your and your family’s health this season. It is possible to get the flu and COVID-19 at the same time. This could cause more severe symptoms and possibly death. Also, if fewer people get severe flu symptoms, it will help the healthcare system, hospitals and ICUs to support people’s urgent health needs.

See: Vaccines FAQ (Johns Hopkins University & Medicine Coronavirus Resource Center)