

CONTRIBUTORS

The CHEST COVID-19 Task Force

Patients may have a lot of questions about the COVID-19 vaccines that are currently being distributed. The CHEST COVID-19 Task Force has collected several common questions and provided easy-to-understand answers to help guide patients. Clinicians are encouraged to share this web page with their patients. Please note: The information below is not intended to replace medical advice from one's doctor.

BENEFITS OF COVID-19 VACCINATION**When will I be able to get the vaccine?**

- This depends on where you live. Each state has been developing their own framework for who gets the vaccine and when. In general, health care workers, nursing home residents, and those over 65 years of age are in the first wave of shots. Other essential workers, such as firefighters, teachers, and grocery employees, are also included in the first wave. For more information, please check your state's Department of Public Health web page for the most up-to-date and reliable information.

How effective is the vaccine?

- The initial trials of the Moderna and Pfizer vaccines showed that 94%-95% of people who received the vaccine were protected against COVID-19.

In the placebo-controlled trial of the Pfizer vaccine, 21,720 people received the vaccine; eight developed symptomatic COVID-19 and one developed severe COVID-19. Of the 21,728 who received the placebo, 162 developed symptomatic COVID-19 and nine developed severe COVID-19.

How long does it take to be immune to COVID-19?

- We don't know for sure. But according to the data from the initial trials, about 10-14 days after the first shot was given, there were fewer cases of COVID-19 in the people who got the real shot (compared to the people who got the placebo).

But you need that second shot! Everyone in the initial trials got a booster shot at 28 days, so you should definitely get your second shot to make sure you are protected. There's been a lot of discussion in the media about giving only the first shot. But there is no evidence about how well only one shot will protect people from getting COVID-19.

Does the vaccine make you less likely to carry the virus and spread it to others?

- We don't know the answer to this yet. So for now, those who have received the vaccine should still be taking basic precautions to protect themselves and others, including wearing a mask, practicing social distancing, and avoiding gatherings.

CONTINUED

If I have had COVID-19, should I still get the vaccine?

- Yes, you should! We do not know yet how long immunity to COVID-19 lasts. The US Centers for Disease Control and Prevention (CDC) still recommends getting vaccinated even if you have had COVID-19 already. The agency does recommend waiting at least 90 days after you recover from COVID-19 to get the vaccine.

There are reports that patients who have had COVID-19 infection have stronger side effects from the vaccine, such as higher fevers and more muscle soreness. But you should still get the vaccine even if you have had COVID-19.

RISKS AND POTENTIAL CONTRAINDICATIONS

Are there side effects from the vaccines?

- The side effects from the COVID-19 vaccines have been minor and similar to those from other vaccines, such as the flu vaccine. Common side effects include pain and swelling in the arm where you got the shot, fever, chills, fatigue, and headache.

These side effects have been reported more frequently following the second dose of the vaccine. After you receive the vaccine, you will be contacted by the CDC V-safe system to report your side effects.

To reduce these symptoms, consider:

- ◆ Taking ibuprofen or acetaminophen for arm pain;
- ◆ Applying a clean, cool, wet washcloth over the area where you received the shot;
- ◆ Using or exercising your arm;
- ◆ Drinking plenty of fluids; and
- ◆ Dressing lightly.

If you have had previous severe allergic reactions, you will be observed for a longer period of time after receiving the vaccine. And if you have any signs of a severe reaction or anaphylaxis after you leave the vaccine observation clinic, please seek medical attention. These signs include trouble breathing or any other worrying side effects.

Would it be safer to wait to get the vaccine until more people have received it?

- Many people have gotten it already. Think about the trials only: More than 21,000 volunteers received the vaccine.

Don't forget that COVID-19 is a potentially severe disease and can cause significant long-term symptoms in many people, including requiring supplemental oxygen to help you breathe for months after being diagnosed. Even those who had a disease that was considered "mild" can have multiple long-term complications.

Can I get the vaccine if I have an allergy or have had anaphylaxis in the past?

- Yes, you can get it if you have had severe allergies or even anaphylaxis in the past to other things (including vaccines!). There are no eggs in either the Moderna or Pfizer vaccines. There are also no preservatives (such as thimerosal) in either of these vaccines.

CONTINUED

Anaphylaxis is very, very rare. In the first 2 million doses of vaccine given, there were 21 cases of anaphylaxis. That's about one per 100,000 doses, which is very low. By comparison, 11 in 100,000 people die in auto accidents every year. Seventy-one percent of the cases of anaphylaxis occurred in the first 15 minutes after the shot.

Will the COVID-19 vaccine change my DNA?

- No. The COVID-19 vaccines are made up of messenger RNA (mRNA). The mRNA is instructions for how to build one of the proteins, the “spike” protein, on the COVID-19 virus that helps it bind to cells. Think of this as a “cheat sheet” to your immune system. So if your immune system sees this protein, it will already know how to respond.

We know from previous studies that the mRNA in the COVID-19 vaccines is out of your system within 24 hours.

Are there any medications that complicate/prohibit someone from getting the vaccine?

- No. Everyone should get the Moderna or Pfizer vaccine. However, some of the other vaccines coming down the pipeline work differently, so there will be different instructions about who can get those vaccines.

Patients on immunosuppressants should still receive the vaccine, and there is not enough data/evidence that immunosuppressive medications, such as methotrexate and steroids, should be stopped prior to getting the COVID-19 shot.

Are there any medical conditions that would be complicated or made worse if I got the vaccine?

- Those who have had severe allergic reactions or anaphylaxis in the past are at risk for having another severe reaction, but these reactions are treatable. It is much safer to have the vaccine than to have a COVID-19 infection.

Is there a risk of neurological complications, such as Guillain Barre Syndrome, with these vaccines?

- To date, there were no cases of Guillain Barre reported as a complication from both trials with mRNA vaccines (Pfizer and Moderna).

POPULATIONS AT RISK

What about pregnant women, young children, or cancer patients?

- The COVID-19 vaccine has not been specifically tested in those populations. The risk of getting severe COVID-19 while pregnant or if you have cancer is significant, though, and pregnant women and cancer patients should get the vaccine. Young children appear to be less severely affected by the COVID-19 virus, perhaps due to differences in their immune systems. The vaccine is currently under study in children but has not yet been approved for use.

What about people living with HIV?

- There were only a limited number of persons living with HIV in the Pfizer and Moderna studies (120 and 176, respectively). No difference was seen between them and people without HIV in terms of side effects or protection. However, people living with HIV who are on effective medication are known to get similar protection as the general population from other vaccines, and most groups recommend that they be vaccinated like everyone else.

CONTINUED

What medical conditions put me at higher risk of developing severe COVID-19 illness?

■ According to the CDC, adults of any age with the following conditions **are at an increased risk** of severe illness from the virus that causes COVID-19:

- ◆ Cancer
- ◆ Chronic kidney disease
- ◆ Chronic obstructive pulmonary disease (COPD)
- ◆ Down syndrome
- ◆ Heart conditions, such as heart failure, coronary artery disease, or cardiomyopathies
- ◆ Weakened immune systems from a solid organ transplant
- ◆ Obesity (body mass index [BMI] of 30 kg/m² or higher, but <40 kg/m²)
- ◆ Severe obesity (BMI ≥40 kg/m²)
- ◆ Pregnancy
- ◆ Sickle cell disease
- ◆ Smoking
- ◆ Type 2 diabetes mellitus

Also, adults of any age with the following conditions **might** be at an increased risk of severe illness from the virus that causes COVID-19:

- ◆ Asthma (moderate to severe)
- ◆ Cerebrovascular disease (affects blood vessels and blood supply to the brain)
- ◆ Cystic fibrosis
- ◆ High blood pressure
- ◆ Weakened immune systems from blood or bone marrow transplant, immune deficiencies, HIV, use of corticosteroids, or use of other immune-weakening medicines
- ◆ Neurologic conditions, such as dementia
- ◆ Liver disease
- ◆ Overweight (BMI >25 kg/m², but <30 kg/m²)
- ◆ Pulmonary fibrosis (having damaged or scarred lung tissues)
- ◆ Thalassemia (a type of blood disorder)
- ◆ Type 1 diabetes mellitus

SOURCE:

Centers for Disease Control and Prevention. COVID-19 Vaccination. <https://www.cdc.gov/vaccines/covid-19/index.html>