



## FREQUENTLY ASKED QUESTIONS ABOUT COVID-19 VACCINES

### **Is the vaccine safe and effective?**

All three vaccines have a very high level of effectiveness. Pfizer has a 95 percent rate and Moderna has a 94 percent rate. To be effective, both of these vaccines require two shots, given a few weeks apart. Vaccines cannot be mixed and matched between doses. The length of vaccine-induced immunity is not known at this time, and booster shots may be required.

### **What's in the vaccine?**

The Pfizer and Moderna vaccines both use messenger RNA (mRNA) technology. They do not use any live virus particles, meaning individuals will not be exposed to the virus that causes COVID-19. Johnson & Johnson (J & J), is a viral vector vaccine. It is made from an inactivated adenovirus, the virus that causes the common cold, and contains a piece of DNA that instructs the body to make the COVID-19 spike protein. J & J used a modified adenovirus that can enter cells but can't replicate inside them or cause illness.

### **Can I get COVID-19 from the vaccine?**

No. There are no live virus particles. While you might feel minor, temporary side effects from the injection, it is impossible to contract the virus from the vaccine.

### **Will the vaccine cause side effects? If so, how long might they last?**

Some people who get a Pfizer or Moderna COVID-19 vaccine will experience side effects, particularly after a second dose. The side effects of the vaccine appear to be minor and temporary. Participants have reported pain at the injection site, fatigue, and occasional fever, headache, or aching muscles and joints. These side effects fade within 1-2 days.

These side effects are actually common with all vaccines: they are a sign that a vaccine is working and triggering an immune response. If someone is going to have a bad reaction to a vaccine, it is likely to occur in the first six weeks after vaccination.

Some people who get the Johnson & Johnson COVID-19 vaccine will experience side effects. Participants have reported pain, redness, or swelling at the injections site. Others have experienced tiredness, headache, muscle pain, chills, fever, or nausea. These side effects happen within a day or two of getting the vaccine. They are normal signs that your body is building protection and should go away within a few days.

### **Are there any long-term side effects?**

There have been no long-term side effects in the Pfizer or Moderna COVID-19 vaccines.

There is a plausible causal relationship between Johnson & Johnson COVID-19 Vaccine and a rare and serious adverse event—blood clots with low platelets (thrombosis with thrombocytopenia syndrome, or TTS).

It occurs at a rate of about 7 per 1 million vaccinated women between 18 and 49 years old. For women 50 years and older and men of all ages, this adverse event is even more rare.

The Centers for Disease Control and Prevention (CDC) and the Food and Drug Administration (FDA) are monitoring all vaccines closely.

Getting sick with COVID-19 is dangerous. We know that COVID-19 can cause long-term health problems, even in mild cases.

### **Has anyone died or become ill after taking the vaccine?**

More than 363 million doses of COVID-19 vaccines were administered in the United States from December 14, 2020, through August 23, 2021. During this time, VAERS received 6,968 reports of death (0.0019%) among people who received a COVID-19 vaccine. FDA requires healthcare providers to report any death after COVID-19 vaccination to VAERS, even if it's unclear whether the vaccine was the cause. Reports of adverse events to VAERS following vaccination, including deaths, do not necessarily mean that a vaccine caused a health problem. A review of available clinical information, including death certificates, autopsy, and medical records, has not established a causal link to COVID-19 vaccines. However, recent reports indicate a plausible causal relationship between the Johnson & Johnson COVID-19 Vaccine and TTS, a rare and serious adverse event—blood clots with low platelets—which has caused death.

### **How many doses do I need to be fully protected? Is one good enough?**

To be effective, both the Pfizer and Moderna vaccines require two shots, given a few weeks apart. It is typical for the second dose of vaccine to give a more significant, longer-term boost. Giving a vaccine in two doses is common for many childhood vaccines. The first shot primes the immune system, helping it recognize the virus, and the second shot strengthens the immune response. Pfizer's second shot is given 21 days after the first one; Moderna's is 28 days later.

The Johnson & Johnson vaccine requires one shot.

### **Can I mix and match vaccines?**

No.

### **If I have already had COVID-19 and recovered, do I still need to get vaccinated with a COVID-19 vaccine?**

Yes, you should be vaccinated regardless of whether you already had COVID-19 because:

- Research has not yet shown how long you are protected from getting COVID-19 again after you recover from COVID-19.
- Vaccination helps protect you even if you've already had COVID-19.

Evidence is emerging that people get better protection by being fully vaccinated compared with having had COVID-19. One study showed that unvaccinated people who already had COVID-19 are more than 2 times as likely than fully vaccinated people to get COVID-19 again.

If you were treated for COVID-19 with monoclonal antibodies or convalescent plasma, you should wait 90 days before getting a COVID-19 vaccine. Talk to your doctor if you are unsure what treatments you received or if you have more questions about getting a COVID-19 vaccine.

If you or your child has a history of multisystem inflammatory syndrome in adults or children (MIS-A or MIS-C), consider delaying vaccination until you or your child have recovered from being sick and for 90 days after the date of diagnosis of MIS-A or MIS-C.

Experts are still learning more about how long vaccines protect against COVID-19. CDC will keep the public informed as new evidence becomes available.

### **If I am pregnant, can I get the COVID-19 vaccine?**

Yes, COVID-19 vaccination is recommended for all people 12 years and older, including people who are pregnant, breastfeeding, trying to get pregnant now, or might become pregnant in the future. You might want to have a conversation with your healthcare provider about COVID-19 vaccination. While such a conversation might be helpful, it is not required before vaccination.

### **How long does protection from a COVID-19 vaccine last?**

We don't know how long protection lasts for those who are vaccinated. What we do know is that COVID-19 has caused very serious illness and death for a lot of people. If you get COVID-19, you also risk giving it to loved ones who may get very sick. Getting a COVID-19 vaccine is a safer choice.

**If I have an underlying condition, can I get a COVID-19 vaccine?**

People with underlying medical conditions can receive a COVID-19 vaccine as long as they have not had an immediate or severe allergic reaction to a COVID-19 vaccine or to any of the ingredients in the vaccine. Learn more about vaccination [considerations for people with underlying medical conditions](#). Vaccination is an important consideration for adults of any age with certain underlying medical conditions because they are at increased risk for severe illness from COVID-19.

**Can I get vaccinated against COVID-19 while I am currently sick with COVID-19?**

No. People with COVID-19 who have symptoms should wait to be vaccinated until they have recovered from their illness and have met the criteria for discontinuing isolation; those without symptoms should also wait until they meet the criteria before getting vaccinated. This guidance also applies to people who get COVID-19 before getting their second dose of vaccine.

**What is the Delta variant and do vaccines protect me from it?**

The Delta variant spreads faster than the original virus, and data have shown that people infected with the Delta variant have 1000 times as much virus in their system when they test positive, making it easier to spread the virus to other people. As case numbers rise and vaccination rates slow, states and communities with lower vaccination rates are seeing the fastest increase in COVID-19 — specifically cases of the Delta variant. Reporting shows that more COVID cases resulting in hospitalization are occurring in younger populations than previously observed. Even children are ending up in the ICU. The COVID-19 vaccine can prevent nearly every case of COVID-19.

**Where can I get more information about vaccines?**

<https://www.vaccines.gov/>