

The COVID-19 Vaccine

Frequently Asked Questions

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We are very optimistic about the COVID-19 vaccines that are currently available. Widespread immunization will help us eradicate the COVID-19 pandemic and get our lives back to normal more quickly. We are on our way, imagine the benefits of widespread vaccination so this crisis can end sooner.

We are part of a large network of quality-driven dermatology practices. Together with our 75 physician colleagues across 9 states, we have closely followed the vaccine development, clinical trials and success of the ongoing vaccine campaign. Below are the answers we compiled to address our patients' most common questions about the vaccines, and we thought they might be helpful to you.

How effective is the COVID-19 Vaccine?

On December 10, 2020, the vaccine developed by Pfizer/BioNTech was reviewed by a panel of experts who recommended that the FDA issue an Emergency Use Authorization (EUA) for people ages 12 and older. The FDA approved the original EUA, allowing immediate distribution throughout the US and vaccinations for adults began on Monday December 14, 2020. This novel vaccine prevented the virus in 95% of clinical trial participants.

Data for the similar Moderna vaccine shows an effectiveness of 94.5% in preventing coronavirus infection, and has been approved for distribution as well. These results are promising because those levels of protection would put these vaccines on par with highly-effective childhood vaccines for diseases such as measles. The Moderna vaccine is currently in trials for people ages 12-17 and showing promising results – an effectiveness of 96% two weeks after the second dose. The vaccine was "generally well tolerated," and there were no serious safety concerns identified thus far.

Pfizer has said it expects to seek authorization of its vaccine for children ages 2 - 11 this September, and Moderna says a phase 2 study of its vaccine in children 6 months to 11 years old is ongoing.

Johnson & Johnson's vaccine has also been approved and although it is not quite as effective in preventing symptomatic infection (70%), the Johnson & Johnson vaccine does not require a second dose. All 3 vaccines are >99% effective at preventing serious disease, hospitalization and death.

Do the vaccines work against the Delta variant?

All three coronavirus vaccines currently show excellent effectiveness against the new Delta variant, which is the most highly contagious virus variant yet identified. The Delta variant is quickly becoming the dominant strain in the US and worldwide, and is most heavily impacting people and communities with low vaccination rates. We strongly recommend all who can to be vaccinated immediately, even if you previously had COVID-19 or tested positive for coronavirus without symptoms. If you have concerns or health issues, please discuss those concerns with your primary care physician so you can make the most informed decision.

Should I be concerned about the side effects of the vaccine?

A small number of clinical trial participants experienced mild, short-term side effects such as fatigue, soreness at the injection site, and headaches. These side effects are similar to those that are experienced with other long-used vaccines such as MMR.

A reaction to the vaccine is typically not an allergy or a sickness. It is caused by your immune system working to pump out antibodies in response to the vaccine. These mild side effects show that your body is working hard to protect you from the virus. Many people experience no side effects from vaccines.

No serious safety concerns have been observed for the Pfizer or Moderna vaccines. Use of the Johnson & Johnson vaccine was temporarily paused due to a rare and serious adverse event—blood clots with low platelets.

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 CDC and FDA did a thorough review of all available data and recommended the use of the Johnson & Johnson vaccine resume, as the benefits outweigh its known and potential risks, and there remain alternative options for women under 50.

What about the risk of heart problems in young people receiving the vaccine?

The CDC, FDA and other health care organizations recently released a joint statement following extensive review of the cases.

“As physicians, nurses, public health and health care professionals, and, for many of us, parents, we understand the significant interest many Americans have in the safety of the COVID-19 vaccines, especially for younger people. Today, the CDC Advisory Committee on Immunization Practices (ACIP) met to discuss the latest data on reports of mild cases of inflammation of the heart muscle and surrounding tissue called myocarditis and pericarditis following COVID-19 vaccination among younger people.

The facts are clear: this is an extremely rare side effect, and only an exceedingly small number of people will experience it after vaccination. Importantly, for the young people who do, most cases are mild, and individuals recover often on their own or with minimal treatment. In addition, we know that myocarditis and pericarditis are much more common *if you get COVID-19*, and the risks to the heart from COVID-19 infection can be more severe.

The vaccines are safe and effective, and they prevent COVID-19 illness. They will help protect you and your family and keep your community safe. We strongly encourage everyone age 12 and older who are eligible to receive the vaccine under Emergency Use Authorization to get vaccinated, as the benefits of vaccination far outweigh any harm. Especially with the troubling Delta variant increasingly circulating, and more readily impacting younger people, the risks of being unvaccinated are far greater than any rare side effects from the vaccines. If you get COVID-19, you could get severely ill and be hospitalized or even die. Even if your infection is mild, you or your child could face long-term symptoms following COVID-19 infection such as neurological problems or diminished lung function.

We recommend getting vaccinated right away if you haven't yet. It is the best way to protect yourself, your loved ones, your community, and to return to a more normal lifestyle safely and quickly.”

These vaccines were developed quickly. How do I know they are safe?

No corners were cut in the development of these vaccines, which have shown high levels of both protection and safety. The mRNA technology used in these new vaccines had been available for years and allowed companies a head start in the process. Additionally, the US government's Operation Warp Speed provided funding for companies to begin mass production of the

vaccines at the same time they enrolled patients in clinical trials. Before a vaccine is approved for the US, it must undergo rigorous clinical trials, the final of which is Phase 3.

Phase 3 clinical trials for the COVID-19 vaccines involved *tens of thousands of volunteers* who were randomized to either receive the vaccine or a placebo, and then monitored for both side effects and for infection with SARS-CoV-2 (coronavirus). Study volunteers were closely monitored for any signs or symptoms that would indicate a problem with the vaccines. Fortunately, when the data showed great results, the vaccine was ready to ship out immediately.

For a vaccine to be approved for the US, a vaccine must reduce infection by at least 50%, and must not cause significant adverse events in those who receive it. *After six months and more than 300 million doses administered, these three vaccines have all shown excellent safety profiles.* New studies also show in real life scenarios, the Pfizer and Moderna vaccines show 90% effectiveness in preventing infection in high-risk healthcare workers.

The infographic features a dark teal header with the title in white. Below the header, on the left, is a circular illustration of diverse healthcare workers in various settings. To the right of this illustration, text states: 'Nearly 4,000* health care personnel, first responders, and essential workers were tested weekly for the virus that causes COVID-19'. Further right, there is an illustration of two vaccine vials, with text stating: 'Those who were fully vaccinated† were 90% less likely to get infected'. At the bottom left, there is a small asterisked footnote: '* Effectiveness of Pfizer-BioNTech and Moderna mRNA vaccines among 3,950 study participants in eight U.S. locations from December 14, 2020, to March 13, 2021. Participants self-collected specimens weekly regardless of symptoms and collected additional specimens if they became sick.' Below that is another footnote: '† Fully vaccinated = 2 weeks after 2nd dose'. The bottom of the infographic contains three elements: 'CDC.GOV' on the left, 'bit.ly/MMWR32921' in the center, and 'MMWR' on the right.

I'm not in a high-risk group. Why should I take the vaccine?

This virus is highly contagious; therefore, even people who are not considered high risk should strongly consider being vaccinated. Furthermore, new variants have emerged that are even more highly transmitted, and some may cause more serious infection even in healthier people. ***A vaccine is not the cure for COVID-19, widespread immunization is, and all the vaccines are showing effectiveness against these newer variant strains, including the most contagious Delta variant. Success in eradicating the pandemic and shortening the time it takes to return to 'normal' is completely dependent upon the acceptance of the science and data and a widespread willingness to be vaccinated.*** For many of us it is an opportunity to help keep our clinics fully staffed, our patients safer, and enable us to protect our communities, our families, including our grandparents, and those at high risk due to predisposing conditions, estimated to include as many as 1 out of 3 Americans.

I have other health conditions. Is it safe for me to take the vaccine?

Individual health decisions are best made in conjunction with the advice of your physician. As with some other vaccines, some people are not good candidates for the COVID vaccine.

As a precautionary measure, it is advised that people with a history of severe allergies receive the vaccine under guidance of their physician. There were two instances of allergic reactions during the first day of the vaccine rollout in the United Kingdom. These individuals were National Health Services workers who had known significant allergies and were equipped with adrenaline auto-injectors to deal with their allergies.

Anaphylaxis after COVID vaccines is rare and occurred in approximately 2 to 5 people per million vaccinated in the U.S. This kind of allergic reaction almost always occurs within 30 minutes after vaccination, therefore, all vaccination sites monitor patients before leaving for any allergic reaction.

Women who are pregnant, lactating or plan to soon become pregnant should discuss vaccination options with their OB/Gyn but the Obstetric specialty societies are recommending vaccination to pregnant women and those who may be planning a pregnancy. Furthermore, new studies show that **protective antibodies from both a prior infection AND a vaccination are transferred to the baby** in utero and in breast milk, providing additional protection to the newborn.

There are several versions of the vaccine from different manufacturers. Which one is right for me?

Each FDA-approved vaccine will work well across all populations. In some locations, individuals will not be able to choose which vaccine they receive. Some vaccines, like Pfizer and Moderna, will require a booster dose 3-4 weeks after the initial dose, while the Johnson & Johnson does not. Whichever vaccine you get, please follow the recommendations for boosters, if applicable, and any other directions provided by your medical provider.

COVID-19 vaccines: What you need to know

The U.S. now has three vaccines in its arsenal against the coronavirus. Here's how they compare.

	Johnson & Johnson	Pfizer	Moderna
Type of vaccine	Viral vector	RNA	RNA
How it works	Teaches the immune system to attack the protein the virus uses to infect other cells. The instructions are carried by a non-dangerous virus.	Uses RNA to teach the immune system to target the virus's surface, preventing infection.	Uses RNA to teach the immune system to target the virus's surface, preventing infection.
Effectiveness*	66%	95%	94.5%
Storage conditions	At least three months at refrigerator temperatures	Two weeks at freezer temperatures (-4°F), five days in the refrigerator (36° to 46°F)	One month at refrigerator temperatures
Doses needed per person	One shot	2 shots, three weeks apart	2 shots, four weeks apart
Status of availability	FDA authorized	FDA authorized	FDA authorized

*Note: The Johnson & Johnson vaccine was tested at a time when faster-spreading viral variants were common and in countries where these strains are known to exist.

Sources: Pfizer; Moderna; Johnson & Johnson; U.S. Food and Drug Administration; World Health Organization

When will I be able to get the vaccine?

All 50 states are now offering vaccines to any resident age 16 or above and they are widely available. Currently, only the Pfizer vaccine is approved for usage in people ages 12 - 15 years old.

Many U.S. pharmacies are now accepting walk-ins for COVID-19 vaccines, given high supply. Rideshare companies Uber and Lyft will offer all Americans free rides to and from COVID-19 vaccination sites beginning on May 24 through July 4, in order for the country to reach a goal of hitting a 70% vaccination rate by Independence Day.

Will the vaccine alter my DNA or give me COVID?

No. None of the vaccines currently available in the US have active viruses in them. Therefore, there is no possibility of getting infected with COVID-19 by taking the vaccine. COVID vaccines will not alter your DNA, which is found in your chromosomes inside the cell nucleus. The new COVID vaccines are based on RNA technology, which has no impact on your DNA. The human body is already full of messenger RNA (mRNA), which translates the genes from your DNA to build proteins that our bodies need. These proteins stimulate antibodies to the virus to protect the recipient against contracting the disease.

There is a lot of conflicting information about the vaccine. How do I know what to trust?

There is no shortage of information, opinions and falsehoods about the COVID vaccines. To ensure you are getting the most accurate information, we recommend that you rely on licensed medical professionals as well as local, state and federal healthcare agencies and other resources that are experienced in evidenced-based science and medicine.

The CDC keeps a regularly updated COVID vaccine FAQ on their website. You can access that information here: <https://www.cdc.gov/coronavirus/2019-ncov/vaccines/faq.html>

Patient Safety is Our Priority

As the country begins to move toward normalcy, we ask for your help a while longer. The CDC strongly recommends that medical practices continue to follow the current safety protocols. This is in order to protect our vulnerable patients and staff who are not able to be vaccinated. Our mission is to provide ALL patients with the highest quality, safest care possible – right now, that necessitates:

- Continuing to recommend our staff get vaccinated to join the majority of staff who have already been immunized
- Screening all staff, patients and visitors consistent with updated guidelines
- Rescheduling patients who have been exposed to or are experiencing COVID-19 symptoms
- Requiring staff to wear medical-grade face masks and asking patients to do the same
- Thoroughly and frequently sanitizing the entire office and exam rooms
- Limiting visitors according to the most recent local and federal guidelines
- Promoting physical distancing in waiting areas and minimizing in-office wait times

Here are some ways you can reduce your risk and avoid exposing others if you have been exposed or contracted COVID-19:

- Get vaccinated
- Talk to your primary care physician about getting a COVID-19 vaccine if you have questions or concerns
- Stay at home if you have tested positive for COVID-19, have been exposed to the virus or exhibit symptoms
- Frequently wash your hands
- Wear a mask , preferably a medical-grade mask for better protection
- Follow appropriate physical distancing protocols

Thank you for trusting us with your care.