

MYTH: mRNA vaccines can change a person's DNA.

FACT: COVID-19 mRNA vaccines do not change or interact with your DNA in any way. Messenger RNA vaccines—also called mRNA vaccines—are the first COVID-19 vaccines authorized for use in the United States. mRNA vaccines teach our cells how to make a protein that triggers an immune response. The mRNA from a COVID-19 vaccine never enters the nucleus of the cell, which is where our DNA is kept. This means the mRNA cannot affect or interact with our DNA in any way. Instead, COVID-19 mRNA vaccines work with the body's natural defenses to safely develop immunity to disease. Learn more about how [COVID-19 mRNA vaccines work](#).

MYTH: You can get COVID-19 from the mRNA vaccine.

FACT: It is not possible to get COVID-19 from the vaccine. mRNA vaccines do not contain or code for live virus. After injection, the COVID-19 mRNA vaccines give instructions for our muscle cells to make a piece of what is called the coronavirus "spike" protein. Once the immune system recognizes this protein, it will develop antibodies against COVID-19, like what happens in natural infection. It will not cause COVID-19. [See this video by Dr. Joshua Sharp, UM associate professor of pharmacology, to understand how the Moderna and Pfizer vaccines use mRNA to protect against COVID-19.](#)

MYTH: The contents of the mRNA COVID-19 vaccine contain microchip nanotechnology.

FACT: The vaccine is a white to off-white, sterile, preservative-free, frozen suspension for intramuscular injection. The vaccine contains a nucleoside-modified messenger RNA (mRNA) encoding the viral spike glycoprotein (S) of SARS-CoV-2, the virus that causes COVID-19. The vaccine also includes the following ingredients: lipids, potassium chloride, monobasic potassium phosphate, sodium chloride, dibasic sodium phosphate dihydrate and sucrose. There is no microchip nanotechnology inserted into the vaccine.

MYTH: I will immediately be immune after receiving the COVID-19 vaccination.

FACT: What we know about immunity come from the available data in the vaccine clinical trials. It takes approximately two weeks for immunity to develop after completing two doses of the Pfizer or Moderna vaccine.

MYTH: I don't need to wear a mask and avoid close contact with others because I have received both doses of the vaccine.

FACT: Even after you have received the vaccination, it will be important for everyone to continue following infection prevention recommendations like covering your mouth and nose with a mask, wash your hands often and stay at least six feet away from others. There are two main reasons why:

1. After vaccination, there is still a small risk for you to develop mild or asymptomatic COVID-19 disease after exposure to the virus and you could potentially spread it to others.
2. There will be limited vaccination doses available initially. Because people will be vaccinated in waves, it will take time to vaccinate enough of the population to stop the spread of COVID-19.

MYTH: After vaccination, I will be immune forever.

FACT: We do not have complete knowledge of how long protection will last following vaccination. Preliminary results from vaccination clinical trials have shown protection for up to two months post vaccination. Trials are still ongoing to assess for duration of protection for two years post vaccination. To the best of our knowledge, immunity generated from vaccination will offer a similar duration of protection as natural infection without risk for COVID-19 disease.

MYTH: The vaccine will not work against the new COVID-19 strains.

FACT: To date, the vaccines appear to be effective against new strains, however this is a rapidly evolving situation that is being monitored closely by public health officials and government agencies. The best strategy to stop the coronavirus from mutating and developing new variants is by slowing down the transmission of this virus. Ongoing prevention practices such as hand washing, social distancing, wearing a mask around others, and avoiding social gatherings will help slow the transmission of COVID-19.

MYTH: The COVID-19 vaccine is not safe.

FACT: Numerous, well-conducted studies for both of the currently available vaccines have been performed by the world's leading health experts over the last several months. COVID-19 vaccines have been subjected to a rigorous process for evaluating safety and effectiveness, and have been approved for use by the U.S. Food and Drug Administration because there are not adequate therapies to prevent and treat COVID-19, and the trial demonstrated that the benefits of getting the vaccine outweigh the potential risks.

As with any vaccine, there can be some side effects. Generally speaking, data from thorough clinical trials demonstrate that "the known and potential benefits of this vaccine outweigh the known and potential harms of becoming infected with COVID-19," according to the Centers for Disease Control and Prevention.

MYTH: One vaccine is better than the other.

FACT: The vaccines are felt to be equivalently effective by the CDC. Take the vaccine you can get, and be sure that your second dose is made by the same company as your first dose.

MYTH: The vaccine is too expensive.

FACT: Some vaccination providers like the University of Mississippi Medical Center, in partnership with the Mississippi State Department of Health, are offering the vaccines free of charge. However, vaccination providers can choose to charge an administration fee for giving the shot to someone. Vaccine providers can get this fee reimbursed by the patient's public or private insurance company or, for uninsured patients, by the Health Resources and Services Administration's Provider Relief Fund.

MYTH: I don't need both doses for the vaccine to be fully effective.

FACT: The Moderna vaccine requires the second shot to be administered 28 days after the first dose, and the Pfizer vaccine requires a second dose 21 days later. These two types of vaccines are not interchangeable; you must receive the same kind in your second dose as you did for your first.

The vaccines are effective at preventing symptomatic laboratory-confirmed COVID-19 among persons without previous SARS-CoV-2 infection, with Pfizer reporting 95% effectiveness and Moderna 94.1% effectiveness. High efficacy was observed across sex, race, age, and ethnicity categories, and among people with underlying medical conditions, with Moderna reporting at least 86% efficacy in each category and Pfizer at least 92% efficacy in each category.

MYTH: Pregnant women cannot take the vaccine.

FACT: The MSDH shares that, "Pregnant women and lactating women and those who are immunocompromised may take the vaccine; however, consultation with your healthcare provider is recommended." The [CDC notes](#) there is limited data about the safety of COVID vaccines for pregnant women, though "...experts believe they are unlikely to pose a specific risk for people who are pregnant. However, the actual risks of mRNA vaccines to the pregnant person and her fetus are unknown because these vaccines have not been studied in pregnant women."

MYTH: I can't spread the virus because I've been vaccinated.

FACT: According to the CDC: "It typically takes a few weeks for the body to build immunity (protection against the virus that causes COVID-19) after vaccination. That means it's possible a person could be infected with the virus that causes COVID-19 just before or just after vaccination and still get sick." This is because the vaccine has not had enough time to provide protection. And some people, even though they are immune (and so they don't get sick), may still carry the live virus in their noses after exposure. Thus, a vaccinated person could still be a spreader.

MYTH: A COVID-19 vaccine will get me sick with COVID-19.

FACT: None of the authorized and recommended [COVID-19 vaccines or COVID-19 vaccines currently in development in the United States](#) contain the live virus that causes COVID-19. This means that a COVID-19 vaccine cannot make you sick with COVID-19. Learn more about [how COVID-19 vaccines work](#).

MYTH: After getting a COVID-19 vaccine, I will test positive for COVID-19 on a viral test.

FACT: Neither the recently authorized and recommended vaccines nor the other COVID-19 vaccines currently in clinical trials in the United States can cause you to test positive on [viral tests](#), which are used to see if you have a current infection. If your body develops an immune response—the goal of vaccination—there is a possibility you may test positive on some [antibody tests](#). Antibody tests indicate you had a previous infection and that you may have some level of protection against the virus. Experts are currently looking at how COVID-19 vaccination may affect antibody testing results.

MYTH: I can go ahead and get the vaccine because I have COVID-19 now.

FACT: If you are out of your isolation period — 10 days after the onset of symptoms or 10 days after the test was done if you have no symptoms — and you no longer have symptoms or they have significantly subsided, you can get the vaccine if it is available to you.

MYTH: I'm in quarantine, but I don't have any COVID-19 symptoms so I can go ahead and get the vaccine.

FACT: Persons in the community or outpatient setting who have had a known COVID-19 exposure should not seek vaccination until their [quarantine period](#) has ended to avoid potentially exposing healthcare personnel and other persons to SARS-CoV-2 during the vaccination visit.

MYTH: I have already had COVID-19 and recovered so I do not need to get vaccinated.

FACT: Due to the severe health risks associated with COVID-19 and the fact that re-infection with COVID-19 is possible, the vaccine should be taken regardless of whether you already had COVID-19 infection.

At this time, experts do not know how long someone is protected from getting sick again after recovering from COVID-19. The immunity someone gains from having an infection, called natural immunity, varies from person to person. Some early evidence suggests natural immunity may not last very long.

MYTH: There are a limited number of places in Mississippi to get vaccinated.

FACT: The Mississippi State Department of Health, which is managing the state's vaccine distribution, has partnered with the University of Mississippi Medical Center and opened 18 drive-thru vaccination sites. If you are qualified to receive the vaccine, you may [schedule an appointment to receive the vaccine](#) through the MSDH/UMMC partnership at this link. You can also call the state's COVID-19 hotline to schedule an appointment at 1-877-978-6453.

Other healthcare providers and hospital systems are also offering their own vaccine distribution options, separate from the MSDH/UMMC partnership.

SOURCES:

Centers for Disease Control and Prevention

- [COVID-19 Vaccine Information from the CDC](https://www.cdc.gov/vaccines/covid-19/index.html) (https://www.cdc.gov/vaccines/covid-19/index.html)
- [Clinical Considerations for COVID-19 Vaccination](https://www.cdc.gov/vaccines/covid-19/info-by-product/clinical-considerations.html) (https://www.cdc.gov/vaccines/covid-19/info-by-product/clinical-considerations.html)

Mississippi State Department of Health

- [Vaccine Information from MSDH](https://msdh.ms.gov/msdhsite/_static/14,0,420,976.html) (https://msdh.ms.gov/msdhsite/_static/14,0,420,976.html)

University of Mississippi Medical Center

- [Eight Questions to Consider Before Taking COVID-19 Vaccines](https://umc.edu/news/Miscellaneous/2021/January/JanuaryCONSULT/CON010120A.html) (https://umc.edu/news/Miscellaneous/2021/January/JanuaryCONSULT/CON010120A.html)
- [COVID-19 FAQs from UMMC](https://umc.edu/CoronaVirus/Vaccinations/FAQs.html) (https://umc.edu/CoronaVirus/Vaccinations/FAQs.html)

UM Vaccine Information Page

- [Information and Updates from UM](https://coronavirus.olemiss.edu/vaccination/) (https://coronavirus.olemiss.edu/vaccination/)