



# Vaccine Myths & FAQs

## Get the facts and decide.

### **“COVID-19 vaccines were rushed, so they can’t be safe.”**

The FDA-authorized COVID-19 vaccines were made using a method that has been in development for years. This technology was created specifically to help vaccine makers respond quickly to a new pandemic illness.

Shortly after their initial outbreak, China isolated and shared genetic information about COVID-19 so scientists could begin developing vaccines globally. The collaborative effort allowed tests to be conducted simultaneously to gather data faster. Companies easily found willing volunteers for clinical trials, eager to represent their own communities and demographics in the medical research.

### **“mRNA vaccines can give you COVID-19.”**

The two authorized messenger RNA (mRNA) vaccines, Moderna and Pfizer, instruct your cells to reproduce a protein that is part of the SARS-CoV-2 coronavirus to help your body recognize and fight the virus, should you become infected. COVID-19 vaccines do not contain the virus and cannot give you the virus.

These vaccines have undergone the most intensive safety monitoring in U.S. history and the FDA has authorized them due to their safety and effectiveness.

### **“COVID-19 vaccines containing mRNA change your DNA.”**

mRNA from the Moderna and Pfizer vaccines enters cells for the sole purpose of causing the cell to make protein to stimulate the immune system. The mRNA then quickly breaks down. It does not enter the nucleus of the cells, where DNA resides, and it does not affect your DNA.

This technology has been in development for more than two decades, specifically to allow vaccine makers to respond quickly to new illnesses.

### **“The ingredients in the COVID-19 vaccine are unsafe.”**

The FDA-authorized COVID-19 vaccines contain mRNA and other normal vaccine ingredients including fats, salts, and a small amount of sugar. The mRNA technology used has been in development for more than two decades, does not contain the virus, and cannot give you the virus. None of the authorized vaccines contain eggs, metal, fetal tissue, implants, or microchips.

## “How do I know the information concerning COVID-19 vaccine safety is true?”

More than 193 million Americans have safely received two doses of the vaccine, and more than 22 million have gone on to receive a third booster dose. Though there have been a small number of reports about adverse side effects, the FDA and CDC have been extremely transparent. In April 2021, these organizations paused the administration of the Johnson & Johnson vaccine to review adverse cases. The benefits of the vaccine were determined to outweigh the risk of this very rare side effect, and authorization resumed.

The FDA and CDC have continued to release information to the public about adverse events, possible safety issues, and any risks to consider.

## “Why do some vaccines require two doses?”

The Moderna and Pfizer vaccines use mRNA to send the body's cells instructions for making a protein that the immune system is then trained to recognize and attack when attached to the actual virus. The first vaccine dose primes the body, and the second dose strengthens the immune response.

The Johnson & Johnson vaccine uses a different approach. A harmless adenovirus is engineered to carry genetic code on the proteins to the cells. Once the cells receive this code, they produce a protein to train the body's immune system to protect against the virus.

The immune response to two doses of the Pfizer and Moderna vaccines provokes a much stronger immune response than just one dose. The first dose begins the process of building up protection, while the second dose reinforces this. Several common vaccines require multiple doses, including measles-mumps-rubella, hepatitis A and B, and the shingles vaccine.

## “I got my first shot. I don't need the second.”

A small but concerning share of people have purposely skipped the second dose of their Moderna or Pfizer COVID-19 vaccine, with some citing the fear of harmful side effects. However, reported side effects have been mild to moderate and disappear quickly. Ultimately, enduring a few days of discomfort greatly outweighs the real possibility of dying a preventable death. To date, more than 752,000 Americans have lost their lives to COVID-19.

Completion of the second dose is critical in protecting you from COVID-19. Missouri offers several programs to assist those in need of rides to COVID-19 vaccination appointments. Learn more about ride assistance to local COVID-19 vaccination appointments: <https://bit.ly/MOVaxxRides>

## “I waited too long to get my second COVID-19 shot. Now what?”

If possible, appointments for the second COVID-19 vaccine should be made at the time you receive your first to ensure they are within the required time interval. However, the second dose can be given up to six weeks (42 days) after the first dose. If more than six weeks have passed since your first dose, contact the location where you received your vaccine to determine next steps.

