

# Pfizer & Moderna COVID-19 mRNA Vaccine Frequently Asked Questions

As we eagerly anticipate approval of the Pfizer and Moderna COVID-19 vaccines, we wanted to share some important information with you. As information continues to become available on these and other COVID-19 vaccines, we understand you may have some questions about how these vaccines work, how safe and effective they are, and any side effects associated with the vaccines. In short, **the Pfizer and Moderna vaccines have been proven safe and effective in large scale testing trials with minimal side effects and will be an important asset in fighting the spread of COVID-19.**

## Why is a vaccine for COVID-19 important?

As with any vaccine, the COVID-19 vaccine is an important tool in stopping the mass spread of the coronavirus. Vaccines help boost immune systems by introducing your body to previews of what the real virus looks like, without causing disease. This preview gives your immune system valuable time to design powerful antibodies to counter the real virus if you are ever exposed or infected. If you receive a COVID-19 vaccine and then have an exposure to the coronavirus, your body is ready to fight the virus, stopping the disease.

## How effective are the Pfizer and Moderna vaccines?

In large scale clinical trials using diverse populations, after administration of both doses of the vaccine, effectiveness of each vaccine is approximately 95% across all populations enrolled.

## How do the Pfizer and Moderna vaccines work?

The coronavirus is an RNA type of virus, which means it has RNA as its genetic material. RNA, short for ribonucleic acid, like DNA, plays an essential role within your body for coding, decoding, regulation and expression of genes. Using RNA technology, scientists were able to map the genetic code sequence of an important part of the coronavirus - the "spike" protein, which is often shown in pictures of the COVID-19 molecule.

Think of this genetic code sequence as a set of instructions. These "instructions" are coded into messenger RNA (mRNA) for use within the vaccine. When the vaccine is injected, like other common vaccines, the mRNA is taken into cells within your body. It is here it instructs cells to make copies of the artificial spike protein as if the cells have been infected by the real coronavirus. Other immune cells are then able to learn about the spike protein and give the immune system a preview of what the real virus looks like. This preview gives the immune system time to design its own natural antibodies that neutralize the real virus if you are ever infected.

It is important to note mRNA technology isn't new; it has been used safely in the oncology field since 1989 for significant cancer treatment advances.

Please see reserve side for additional information

## Is the mRNA vaccine safe?

Yes. The vaccine has been proven safe through large scale clinical trials. Specifically, the Pfizer trial had 44,000 enrolled in their trial and Moderna had 36,000 participants. Enrollees were diverse in age, race, ethnicity, and gender, and were monitored for over 2 months following the second vaccine dose. There have been some reported cases of allergic reaction in people with a significant history of allergic reactions. The efficacy for these trials did not include children or pregnant women, however, and the duration of protection has not yet been established but is anticipated to be a year or more.

Relating to testing, as with any vaccine that is developed, it must undergo rigorous testing before approval. That is the reason for standardized clinical trials involving a large number of diverse populations that are closely monitored for adverse events, side effects, as well as effectiveness. These highly regulated monitoring trials are carried out by organizations independent of the vaccine companies and require highly detailed reporting to the Federal Drug Administration (FDA) prior to formal approval.

## What are the side effects of the mRNA vaccine?

Side effects of the Pfizer and Moderna COVID-19 vaccine are very similar to other vaccines you may have received and range from mild to moderate. The most common side effects include injection site redness and tenderness, fatigue, headache, muscle pain, chills, joint pain, and fever. The chance of having a serious reaction was very low (less than 0.5%).

## How can I get the vaccine?

The Pfizer and Moderna mRNA vaccines should be made available any day, pending FDA approval, and will roll out in batches nationwide. Initially, there will be a limited number of vaccines available. The Centers for Disease Control and Prevention (CDC) and Ohio Department of Health (ODH) have identified who will be prioritized to receive the vaccination. This includes: Health care providers and personnel who are routinely involved with the care of COVID-19 patients, residents and staff at nursing facilities and assisted living facilities, people who live in group homes or centers and staff at those locations, residents and staff of Ohio's veterans homes, and EMS responders.

More details on how Fisher-Titus will distribute the vaccine to staff and residents will be communicated soon.

## Who at Fisher-Titus can I speak with if I have more questions about the vaccine?

Dr. Moorman, chief medical officer, has been leading the initiative from a medical perspective for our health system. Should you have any questions, please reach out to him for detailed questions, or send an email to the COVID19 inbox - [COVID19@ftmc.com](mailto:COVID19@ftmc.com).