COVID-19 Vaccine Frequently Asked Questions

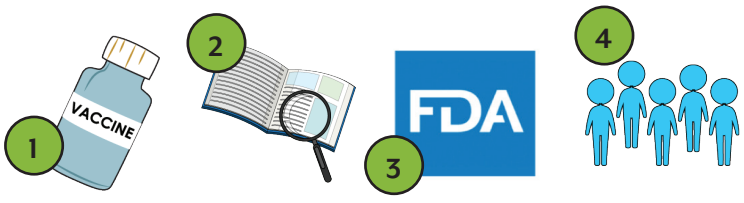
NWHS believes that the COVID-19 vaccines rolling out in our community and nationwide are safe and effective, and that the benefit far outweighs the risk for most people. However, the decision to receive the vaccine is certainly a personal choice. NWHS Pharmacist, Sara Jones, PharmD, took the time to address some of the most common questions about the COVID-19 vaccines. We hope that this information will be helpful in your decision making process!

THE COVID-19 mRNA VACCINES WERE DEVELOPED SO QUICKLY. HOW DO I KNOW THEY'RE SAFE?

It's true! The mRNA COVID-19 vaccines were developed very quickly, but this wasn't because they cut corners. These vaccines were required to go through the same review and approval process that are required for other vaccines. Several factors allowed the vaccine to be developed quickly and safely.

Scientists were able to use existing knowledge and technology to identify vaccine candidates quickly. Once the vaccines were determined to be safe and effective in small studies, scientists were able to study the vaccine in larger groups of patients. These larger "phase 3" trials usually take a long time before we know the results. However, since there were so many volunteers and multiple study sites, they were able to get tens of thousands of participants enrolled to meet the study goals.

Since COVID-19 spreads easily and is present in a large percentage of our population, scientists were able to see the effectiveness of the vaccine in just a few months rather than years. Lastly, the government contributed money, which allowed drug manufacturers to start producing and storing the vaccine while they waited for the results of the clinical trials. This allowed for a quick roll-out once the Food and Drug Administration (FDA) was able to review all of the data and approve the emergency use authorization (EUA).



1. *Scientists used existing knowledge to develop the COVID-19 vaccines.*
2. *Then they test and study the vaccine to see if it's safe and effective.*
3. *The FDA reviews the study results and grants approval*
4. *The vaccine can then be rolled out to communities.*

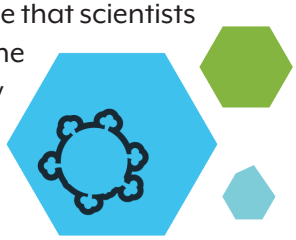
CAN THE COVID-19 VACCINE INFECT ME WITH COVID-19?

The vaccine cannot infect you with COVID-19. In fact, this vaccine doesn't contain any live virus or infection causing pieces of the virus. So how do they work?

The vaccine contains something called a novel messenger RNA (mRNA). After receiving the vaccine, the mRNA is absorbed by cells called macrophages. The mRNA teaches these cells to make spike proteins - just like the spikes that are on the outside of the COVID-19 virus. Our immune system then recognizes the spike proteins as not belonging to us. This starts the immune response that leads to eventual immunity. The body breaks down the mRNA shortly after it's used, and the spike proteins that triggered the immune response are disposed of in the process. No part of the vaccine enters the center of the cell where our DNA is kept. About two weeks after receiving the second dose of the vaccine our immune system knows what to do if it encounters the virus again.

WILL THE VACCINE WORK ON MUTATED FORMS OF THE VIRUS?

This is an excellent question, and one that scientists are working on answering. The studies that are available right now were conducted in labs and not in the real world, so they have some limits and haven't provided definite answers.



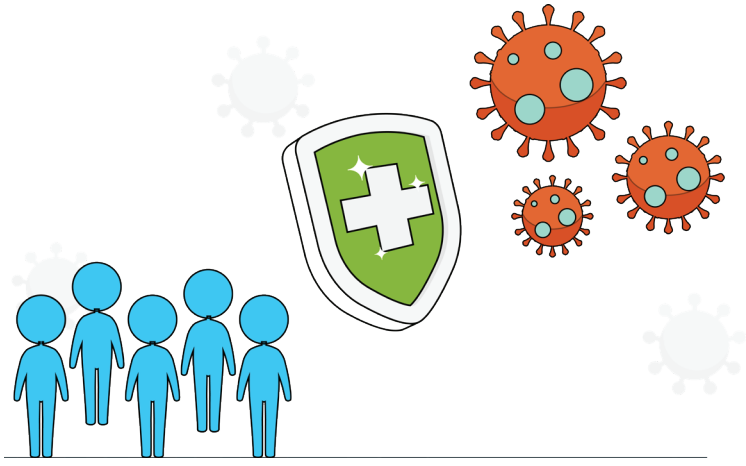
Regardless, the available vaccines are very effective against the most common form of the virus. There is no reason to delay receiving vaccination.

WHAT DO WE KNOW ABOUT SHORT-TERM SAFETY OF THE COVID-19 VACCINES?

Overall short-term safety of these vaccines is good. Most of the side effects include mild pain or redness at the injection site. Flu like symptoms such as fever, chills, or aches are also common. While these side effects are inconvenient and sometimes uncomfortable, they're a sign the vaccine is working. So it's a good thing! Some patients have reported that these side effects are more noticeable after receiving the second dose.

The big question that everyone has is about the serious allergic reactions, like anaphylaxis, that have been reported in the news. Anaphylaxis is usually a very fast, but RARE reaction. Most people think of trouble breathing and swelling of the throat, but rashes and changes in blood pressure and heart rate often happen as well. It is thought that these patients are having a reaction to an ingredient in the vaccine called polyethylene glycol. While this can be scary, it's important to understand that this is extremely uncommon. Anaphylaxis is seen in about 6 of 1,000,000 doses given for the Pfizer/BioNTech vaccine, and at an even lower rate for the Moderna vaccine (2 in 1,000,000). While this is more than what we see for other vaccines, like the flu shot, it is much less than the rate for penicillin, which is 1 in 5,000. This helps us to put the risk into perspective.

To make sure that patients are safe after receiving the vaccine, they are asked to wait for 15 or sometimes 30 minutes (for patients with history of severe reactions) after getting the vaccine. This helps to make sure healthcare professionals are there to provide the care needed if there is a severe reaction.



The COVID-19 vaccine will help your body create an immune response against the virus. This may help keep you from getting severely ill, even if you are exposed to COVID-19.

WHAT DO WE KNOW ABOUT THE LONG-TERM SAFETY OF THE COVID-19 VACCINE?

Since these vaccines are still new, we don't have long-term safety information. However, we do know that with other vaccines, most side effects occur within days or weeks and there are very few (if any) long-term side effects. At this time, we have no reason to believe that the COVID-19 vaccines would be any different.

There are also reporting systems in place, like Vaccine Adverse Event Reporting System (VAERS) and v-safe that collect information on side effects from vaccines and can help us quickly identify any concerns.

Although the long-term effects of the COVID-19 vaccines are still being studied, we have already seen some of the long-term health issues caused by COVID-19 infections. While most people recover from a mild COVID-19 infection completely in a few weeks, they may have long-term symptoms. These can range from lingering fatigue, cough, and aches, to shortness of breath. Complications from more severe infections can have long lasting effects on the heart, lungs and brain.

WHAT ABOUT PREGNANT WOMEN? IS THE VACCINE SAFE FOR THESE PATIENTS?

Pregnant women were not enrolled in the clinical trials, so we don't have a lot of information on this. We do know that pregnant women are at higher risk for more severe illness if they become infected with COVID-19 and may have a higher risk for preterm birth.

The Centers for Disease Control and Prevention (CDC) and American College of Obstetricians and Gynecologists agree that pregnant women should be given the choice to be vaccinated if they fall into a qualified group. Patients with questions should talk to their healthcare provider about the risks of vaccine, and the risks of contracting COVID-19 while pregnant.

WHERE TO FIND MORE INFORMATION

There are MANY other common questions and concerns about the new COVID-19 Vaccines. It's important to find answers to these questions from reliable sources and make the decision to get vaccinated from a place of knowledge.

https://covidvaccine.oregon.gov/

https://www.cdc.gov/coronavirus/2019-ncov/vaccines/index.html