Vaccine MythBusters

1. **Myth: I cannot trust the COVID-19 vaccines because they were rushed.**

   Truth: While the first vaccines for COVID-19 do involve new technology, and they were developed in record time, it is not because there were shortcuts in the process.

   The new technology at the center of Pfizer's and Moderna's COVID-19 vaccines is called messenger RNA, or mRNA. While this is the first time it is being widely used in a vaccine for the public, researchers have been working on this vaccine strategy for more than three decades. The companies put their vaccines through rigorous clinical trials involving tens of thousands of volunteers. In the U.S., the Food and Drug Administration requires them to follow up with volunteers for up to two years after receiving the vaccines to make sure they are safe and effective. Because of how prevalent COVID-19 is, it only took a few months for the clinical trials to collect enough data to make an initial evaluation. The FDA, as well as an independent panel of vaccine experts, closely scrutinized the data from those trials and deemed Pfizer's and Moderna's vaccines safe and effective for emergency use. Similar independent panels in several other countries agree. (*Source: Cleveland Clinic Health Essentials)*

2. **Myth: The COVID-19 vaccines will give me Coronavirus.**

   Truth: None of the authorized and recommended COVID-19 vaccines or vaccines under development in the U.S. contain the live virus that causes COVID-19. This means that COVID-19 vaccine cannot make you sick with the virus.

   There are several different types of vaccines in development. All of them teach our immune systems how to recognize and fight the virus that causes COVID-19. Sometimes this process can cause symptoms, such as fever. These symptoms are normal and are a sign that the body is building protection against the virus that causes COVID-19.

   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 is 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 vaccination has not had enough time to provide protection. (*Source: CDC)*

3. **Myth: We do not know what is in the COVID-19 vaccines.**

   Truth: While the vaccine manufacturers have published full ingredient lists for their vaccines, none of the vaccines currently available contain eggs, preservatives, or latex. And despite conspiracy theories, the vaccines do not contain microchips or any form of a tracking device.

   To learn more about the ingredients in authorized COVID-19 vaccines, follow the links below:

   • Johnson & Johnson Janssen Vaccine
   • Moderna Vaccine
   • Pfizer BioNTech Vaccine

(Source: CDC, FDA)

4. **Myth: The COVID-19 vaccines will alter my DNA.**

   Truth: COVID-19 vaccines do not change or interact with your DNA in any way.

   There are currently two types of COVID-19 vaccines that have been authorized for use in the United States: messenger RNA (mRNA) vaccines and viral vector vaccines.

   The Pfizer-BioNTech and Moderna vaccines are mRNA vaccines, which 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.

   Johnson & Johnson's Janssen COVID-19 vaccine is a viral vector vaccine. Viral vector vaccines use a modified version of a different, harmless virus (the vector) to deliver important instructions to our cells to start building protection. The instructions are delivered in the form of genetic material. This material does not integrate into a person's DNA. These instructions tell the cell to produce a harmless piece of virus that causes COVID-19. This is a spike protein and is only found on the surface of the virus that causes COVID-19. This triggers our immune system to recognize the virus that causes COVID-19 and to begin producing antibodies and activating other immune cells to fight off what it thinks is an infection.

   At the end of the process, our bodies have learned how to protect against future infection from COVID-19. That immune response and the antibodies that our bodies make protect us from getting infected if the real virus enters our bodies. (*Source: CDC)*

5. **Myth: Those who already had Coronavirus will not benefit from the vaccines.**

   Truth: You should be vaccinated regardless of whether you already had COVID-19. That is because experts do not yet know how long you are protected from getting sick again after recovering from COVID-19. Even if you have already recovered from COVID-19, it is possible—although rare—that you could be infected with the virus that causes COVID-19 again.

   If you were treated for COVID-19 with monoclonal antibodies or convalescent plasma, you should wait 90 days before getting a COVID-19 vaccine. Talk to your doctor if you are unsure what treatments you received or if you have more questions about getting a COVID-19 vaccine.

   Experts are still learning more about how long vaccines protect against COVID-19 in real-world conditions; the CDC has vowed to keep the public informed as new evidence becomes available. *(Source: CDC)*

6. **Myth: Once I receive the coronavirus vaccine, I am immune for life.**

   Truth: Studies are underway to determine how long immunity from a coronavirus vaccine will last. But is likely you will need to get the shot on a regular basis, perhaps once every three years or every year like the flu shot. This will allow scientists to adjust the formula, if necessary, as new strains, or variants, of the coronavirus emerge. (*Source: AARP)*

7. **Myth: Once I get a COVID-19 vaccine, I will not have to wear a mask or worry about social distancing.**

   Truth: Even if you get a vaccine, it is important to continue wearing a mask around others, washing your hands, and practicing physical distancing, as the vaccines take time to achieve the

best possible immunity.

It takes about two weeks after your final vaccination for your body to build full protection to the coronavirus. But even after those two weeks, the CDC says you should continue to wear a mask and practice social distancing in most situations.

That is partly because researchers do not know yet whether the vaccine can block virus transmission. That means it is possible that you could still carry the virus once you have been vaccinated and silently transmit it to others, even if you do not have symptoms. (*Source: CDC*)

8. **Myth: Now that we have vaccines, this pandemic will be over very soon.**

   Truth: Until such point that 70% of the population has either been vaccinated or infected, we must continue to do our part to help slow the spread of COVID-19 by wearing a mask, washing our hands and physical distancing. (*Source: Cleveland Clinic Health Essentials*)

9. **Myth: It is not safe for me to get a COVID-19 vaccine if I might want to have a baby one day.**

   Truth: If you are trying to become pregnant now or want to get pregnant in the future, you may receive a COVID-19 vaccine.

   There is currently no evidence that COVID-19 vaccination causes any problems with pregnancy, including the development of the placenta. In addition, there is no evidence that fertility problems are a side effect of any vaccine, including COVID-19 vaccines.

   Like all vaccines, scientists are studying COVID-19 vaccines carefully for side effects now and will continue to do so for many years. (*Source: CDC*)

10. **Myth: Those with underlying medical conditions should not receive a COVID-19 vaccine.**

    Truth: People with underlying medical conditions can receive a COVID-19 vaccine if they have not had an immediate or severe allergic reaction to a COVID-19 vaccine or to any of the ingredients in the vaccine. However, before taking a vaccine, they should review important considerations for people with underlying medical conditions. Vaccination is an important consideration for adults of any age with certain underlying medical conditions because they are at increased risk for severe illness from COVID-19. (*Source: CDC*)

The #KickCOVID-19 CommunityCorps public education campaign aims to increase vaccine confidence while reinforcing basic prevention measures.