



Myths and Facts about the COVID-19 Vaccines

Myth: The COVID-19 vaccine contains a microchip.

Fact: Current vaccines that are in development, and any likely to be developed in the foreseeable future, do not contain a microchip. This is a rumor that started after Bill Gates made comments about the digital certificate of vaccine records. The Pfizer/BioNTech and Moderna that are being released first do have lipid nanoparticles in them. These are tiny particles of an oil-like substance that surround and protect the actual vaccine, which is a fragile molecule. These tiny particles are not in any way a microchip or any other tracking device.

Myth: The COVID-19 vaccine will alter your genetic material or DNA.

Fact: DNA carries your body's genetic information. The two current vaccines by Pfizer/BioNTech and Moderna are both messenger RNA vaccines. Messenger RNA, or mRNA for short, is RNA, not DNA. It works by instructing cells in your body to make a small protein molecule that is very similar to a non-infectious part of the virus. That small protein then causes your immune system to develop immunity to the virus. The mRNA is broken down right after it is used, so it cannot change or do anything to your DNA. The reason that mRNA vaccines have been developed is that it is inherently safer than some of the other vaccine technologies that have been used in the past.

Myth: The COVID-19 vaccine will make you grow a tail or other body parts.

Fact: The mRNA vaccines only contain information to have your cells make a small protein molecule. This small protein then stimulates your immune system to develop specific immunity to the virus. The mRNA is broken down naturally right after it is used to make the protein. The mRNA vaccines do not contain information to do anything else. It cannot alter your body parts or make you grow new ones. Because it does not interfere with your DNA (see the Myth above), it cannot do anything else.

Myth: If I get the COVID-19 vaccine, I can stop wearing a mask.

Fact: Unfortunately, this is not true. While the Pfizer/BioNTech and Moderna vaccines are about 95% effective, they are not 100% effective in every person. You might be one of the 5% of people that do not develop complete immunity with the vaccine. In that case, you could still get COVID-19 and spread it to others. Until enough people get vaccinated and we develop community immunity (sometimes called "herd immunity"), the COVID-19 virus will still be around. Therefore, we must continue to wear masks until we develop community immunity and the pandemic ends.

Myth: If I get the COVID-19 vaccine, I will not get COVID-19.

Fact: If you get the Pfizer/BioNTech or Moderna vaccine, you greatly lower your risk of getting COVID-19. However, for a variety of reasons, no vaccine is 100% effective. The two mRNA vaccines made by Moderna and Pfizer/BioNTech are about 95% effective, which is really good. However, you could be in the 5% that does not develop enough immunity to the virus and could get COVID-19. Playing the odds, it is definitely in your best interest to get the vaccine. If most of us get vaccinated, we will reach community immunity and the pandemic will end.

Myth: This COVID-19 vaccine is a large trap for the government to conduct a test on American Indians/Alaska Natives.

Fact: It is crucial to acknowledge and understand the distrust associated with receiving one of the new COVID-19 vaccines. The Pfizer/BioNTech and Moderna vaccines have already been thoroughly tested in thousands of volunteers from various races and ethnicities. The results from all the tests are published so that independent scientists can verify the information is accurate, safe, effective, and in compliance with ethics standards, ensuring the safety of the people receiving the vaccine. The vaccines are reviewed by multiple groups of scientists and researchers that are independent of each other. For the government to conduct a test on us, there would have to be a conspiracy of enormous proportions. That is very unlikely in this day and age.

Myth: If people get the COVID-19 vaccine, everything can go back to normal.

Fact: Vaccination against COVID-19 is the best way we have of getting back to normal, but that will not happen overnight. It will be months—if not years—until there is enough vaccine to vaccinate everyone in the world. Even then, there will probably be sporadic outbreaks of the virus, kind of like what we see with flu season. Eventually, things will get back more or less to normal but it will require a lot of work in vaccinating a large majority of the population to get us there. In the meantime, other effective measures, such as hand washing, mask-wearing, and social distancing, will still be necessary for some time to come.