

Q&A: COVID-19 vaccine myths

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There has been a lot of news coverage about the COVID-19 vaccines recently developed and now being administered across the U.S.

But with so much information out there, I'm confused about whether these vaccines will be safe. Could you address some of my concerns?

As the COVID-19 pandemic has continued around the world, the brightest hope for ending the pandemic has been the vaccines being developed and administered. People have been sharing a lot of claims and misinformation, and this may make you hesitant as to whether these COVID-19 vaccines are safe and effective.

Below are the top myths and facts about COVID-19 vaccines:

Myth: The COVID-19 vaccine isn't safe because it was rapidly developed.

Fact: Many [pharmaceutical companies](#) invested significant resources into quickly developing a vaccine for COVID-19 because of the worldwide effects of the pandemic. The [emergency situation](#) warranted an [emergency response](#), but that doesn't mean that companies bypassed safety protocols or performed inadequate testing.

Mayo Clinic recommends the [use of vaccines](#) that we are confident are safe. While there are many COVID-19 vaccine candidates in development, the Pfizer vaccine is the first authorized for emergency use by the FDA. This vaccine was created using new technology based on the molecular structure of the virus that allows it to be free from materials of animal origin and synthesized by an efficient, cell-free process without preservatives. This vaccine developed by Pfizer/BioNTech has been studied in approximately 43,000 people.

To receive emergency use authorization, the biopharmaceutical manufacturer must have followed at least half of the study participants for at least two months after completing the vaccination series, and the vaccine must be proven safe and effective in that population.

In addition to the safety review by the FDA, the Advisory Committee on Immunization has convened a panel of experts to independently evaluate

the safety data from the clinical trial. Mayo Clinic vaccine experts also will review the available data. The safety of COVID-19 vaccines will continue to be closely monitored by the Centers for Disease Control and Prevention and the FDA.

Myth: I already had COVID-19, so I don't need to get the vaccine.

Fact: There is not enough information currently available to say if or for how long after infection someone is protected from getting COVID-19 again. This is called natural immunity. Early evidence suggests natural immunity from COVID-19 may not last very long, but more studies are needed.

Mayo Clinic recommends getting the COVID-19 vaccine even if you've had COVID-19 previously. However, those who have had COVID-19 should delay vaccination until about 90 days from diagnosis. People should not get vaccinated if in quarantine after exposure or if they have COVID-19 symptoms.

Myth: There are severe side effects of the COVID-19 vaccines.

Fact: COVID-19 vaccines have been shown to have short-term mild or moderate vaccine reactions that resolve without complication or injury.

The early phase studies of the Pfizer vaccine show that it is safe. About 15% of people developed short-lived symptoms at the site of the injection. Half developed systemic reactions, primarily headache, chills, fatigue or muscle pain or fever lasting a day or two.

Keep in mind that these side effects indicate that your immune system is responding to the vaccine and are common when receiving vaccines.

Myth: I won't need to wear a mask after I get the

COVID-19 vaccine.

Fact: *It may take time for everyone who wants a COVID-19 vaccination to get one. Also, while the vaccine may prevent you from getting sick, it is unknown at this time if you can still carry and transmit the virus to others after vaccination.*

Until more is understood about how well the vaccine works, continuing with precautions such as mask-wearing, physical distancing and washing hands frequently will be important.

Myth: *More people will die as a result of a negative side effect to the COVID-19 vaccines than would actually die from the virus.*

Fact: *There is a claim circulating on [social media](#) that COVID-19's mortality rate is 1%-2% and that people should not be vaccinated against a virus with such a high survival rate. However, a 1% mortality rate is 10 times more lethal than the seasonal flu. In addition, mortality rates can vary widely and are influenced by age, sex and underlying health conditions.*

While some people that receive the vaccine may develop symptoms as their [immune system](#) responds, remember that this is a common reaction when receiving any vaccine and these symptoms are not considered serious or life-threatening. You cannot get COVID-19 from the COVID-19 vaccines; they are inactivated vaccines, not live vaccines.

It's important to recognize that getting vaccinated for COVID-19 is not just about survival from COVID-19. It's about preventing spread of the virus to others and preventing infection that can lead to long-term negative health effects.

While no vaccine is 100% effective, they are far better than not getting

vaccinated. The benefits outweigh the risks in healthy people.

Myth: The COVID-19 vaccine was developed as a way to control the general population either through microchip tracking or nano transducers in our brains.

Fact: There is no vaccine "microchip," and the vaccine will not track people or gather personal information into a database. This myth started after comments made by Bill Gates from the Bill & Melinda Gates Foundation about a digital certificate of vaccine records. The technology he was referencing is not a microchip, has not been implemented in any manner, and is not tied to the development, testing or distribution of the COVID-19 [vaccine](#).

Myth: The COVID-19 vaccine will alter my DNA.

Fact: The first COVID-19 vaccines to reach the market are likely to be messenger RNA (mRNA) vaccines. According to the CDC, mRNA vaccines work by instructing cells in the body how to make a protein that triggers an immune response. Injecting mRNA into your body will not interact or do anything to the DNA of your cells. Human cells break down and get rid of the mRNA soon after they have finished using the instructions.

Myth: The COVID-19 vaccines were developed using fetal tissue.

Fact: Current mRNA COVID-19 vaccines were not created with and do not require the use of fetal cell cultures in the production process.

More information will be forthcoming as vaccines become available in your area. Even after being vaccinated for COVID-19, you should continue to wear a mask, practice social distancing and wash your hands often. Learn more in Mayo Clinic's [FAQs on COVID-19 vaccines](#).

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