

# CORONAVIRUS DISEASE (COVID-19) VACCINATION MYTHS

**Falsehoods and myths about the new vaccines are circulating widely on social media.**



## **MYTH 1: The new vaccines were developed so quickly that drug companies cut corners on safety.**

Although the virus that causes COVID-19 was first reported at the end of 2019, scientists had already conducted years of research on related coronaviruses that cause SARS (severe acute respiratory syndrome) and MERS (Middle East respiratory syndrome) and developed possible vaccines to fight these viruses.

The COVID-19 vaccines produced by Pfizer (in conjunction with BioNTech) and Moderna, utilize a genetic molecule called messenger RNA that is a direct result of research that has been studied for over a decade. Researchers at Pfizer and Moderna conducted rigorous clinical trials of their vaccines involving tens of thousands of participants to evaluate both safety and effectiveness.

**The FDA reports that adverse reactions to the new vaccines have been few**, with the most commonly reported side effects — pain at the injection site, tiredness, headache, muscle pain, chills, joint pain, and fever — lasting just a few days. **Several people have experienced allergic reactions and temporary face paralysis** following vaccination. These incidents tend to make headlines, **but they have been rare.**



## **MYTH 2: The vaccines change your DNA.**

The **new vaccines** were created using genetic technology, but they **do not affect a person's DNA in any way.** The mRNA in the vaccine gives cells instructions on how to produce a piece of a protein called a spike protein, which is similar to a protein on the surface of the coronavirus. This triggers the immune system to produce antibodies, which remain in the bloodstream ready to fight any future coronavirus infection. **The mRNA from the vaccine never enters the nucleus of the cell and does not affect or interact with a person's DNA.**



## **MYTH 3: The vaccines can infect you with the coronavirus.**

**The mRNA vaccines do not contain a live virus and do not carry a risk of causing disease in the vaccinated person.** Getting the virus from the vaccine would be like getting a chicken from scrambled eggs. It can't happen. **There's no virus in the vaccine.**

The way that these vaccines work is to expose your body to a protein that the virus has on its surface, but the rest of the virus is not present. Therefore, you're not getting infected with a virus and it can't turn into a virus.



## **MYTH 4: As soon as you get vaccinated, you can get right back to normal life.**

**Even after people get an mRNA vaccine and the required booster shot, they will need to wear a mask and avoid close contact with others** because, it's not known whether they can still carry the virus and transmit it to others. It's very important for everyone to continue to practice good habits to mitigate the disease **until we see complete herd immunity and complete disappearance of this virus.** Herd immunity is when the spread of disease from person to person becomes unlikely because of widespread immunity.

Also, the **vaccines have been shown to be 95% effective, which means they don't guarantee full protection.** But if a vaccinated person does get infected, **they are far less likely to develop severe illness.** That's the way a lot of our vaccines work. People who get the flu vaccine may actually get the flu, but they don't end up in the hospital.

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## MYTH 5: The vaccines increase your risk for developing autism or cancer.

**No vaccines we currently have cause autism or cancer** – that has been definitively proven – despite what some say on the internet. **There's no reason based on the science for these vaccines that they would cause either.**

**A system is in place to identify and report any rare adverse effects of COVID-19 inoculation. The CDC's Immunization Safety Office has been around for decades but is really being ramped up for these vaccines.** One of the main jobs is doing research to find out if adverse events that are reported by doctors, vaccine manufacturers, and the public are truly caused by the vaccine.



## MYTH 6: You don't need to get a vaccine if you've already had COVID-19 or if others get inoculated.

**There is not enough information currently available to say if or for how long after infection someone is protected from getting COVID-19 again. More people have been getting the virus twice.** It's important for as many people as possible to get a vaccine in order to achieve herd immunity.



## MYTH 7: The vaccines can cause infertility.

**Recently, rumors flooded the internet that COVID-19 vaccines could cause infertility in women** because they contain an ingredient that interferes with the development of the placenta. **There are no data to support this hypothesis.** Experts believe mRNA vaccines are **unlikely to pose a risk to a pregnant woman or her fetus.**



## MYTH 8: Microsoft cofounder Bill Gates wants to use new vaccines to implant microchips in people.

Many people on the internet promote this microchip conspiracy theory. **The CDC, along with all reliable reputable health resources state this is silly and completely false!** However, healthcare experts trace the reason for these crazy theories to fear. It's normal to feel uneasy about vaccines and other medical things. Instead of getting more scientifically proven, accurate information - fearful people instead are looking to validate their emotion, and so they are more likely to accept outlandish claims.

**Doctors underscore the need for individuals to make sure they are getting their health facts from reliable sources.** People can make up any theories that they want about anything. Get your information from an authoritative sources like the CDC, American Academy of Family Physicians, or American Academy of Pediatrics.

