

## Myths and Facts About COVID Vaccines

Here are some common myths that have been driving vaccine hesitancy. The facts are provided by Sarasota Memorial Infectious Disease Specialist Manuel Gordillo, MD, as well as information from the CDC and the American College of Obstetricians and Gynecologists. With COVID infections and hospitalizations surging, if you had been taking a “wait and see” approach, now is the time to get the shot and protect yourself, your loved ones and the community.

**MYTH: I’m young (or I’m healthy), so I don’t need to get vaccinated.**

**FACT:** While younger adults are less likely than the elderly to die of COVID-19, the disease can still be dangerous for them. Studies indicate that among adults age 18 to 39 who developed COVID-19, nearly 30% now suffer from “long-hauler” symptoms, including fatigue, brain fog and loss of taste or smell. Many of these young adults had only a mild case of COVID-19 when they were first infected.

**MYTH: Break-through infections prove the vaccines don’t work against the new Delta variant.**

**FACT:** While mild breakthrough infections may be more common than once thought, the main goal of the vaccines is to prevent severe disease and death. That is something all of the vaccines do really well. They prevent hospitalization and severe disease in 90% of people who get a break-through infection. If you are vaccinated and get the infection, chances are you'll get very mild symptoms or no symptoms at all.

**MYTH: The vaccine may prevent pregnancy, or harm an unborn baby by altering our DNA.**

**FACT:** COVID-19 vaccines do not alter recipients' DNA; as a result, they cannot cause any genetic changes to mom or the unborn baby. There also is no evidence that vaccination causes any problems with pregnancy. The pregnancy prevention myth has been perpetuated by a sophisticated disinformation campaign that falsely claims antibodies to the vaccines' COVID-19 spike protein will bind to placental proteins and prevent pregnancy. On the surface, it may seem based on science, but it is not true.

In addition, the American College of Obstetricians and Gynecologists (ACOG) says current reports suggest that pregnant and recently pregnant women have a higher risk for more severe illness from COVID-19 than nonpregnant women. ACOG and the Society for Maternal-Fetal Medicine both recommend that all pregnant women be vaccinated against COVID-19.

**MYTH: I shouldn’t get the vaccine if I’m breastfeeding.**

**FACT:** ACOG recommends that breastfeeding women get a COVID-19 vaccine, and says there is no need to stop breastfeeding if you want to get vaccinated. When you get vaccinated, the antibodies made by your body can be passed through breastmilk and help protect your child from the virus.

**MYTH: I might get COVID-19 from the vaccine.**

**FACT:** None of the authorized vaccines in the U.S. contain live virus. This means that the vaccine cannot make you sick with COVID-19. Short-term symptoms that may follow a vaccination are normal and show that your body is building protection against the virus.

**MYTH: COVID-19 vaccines were developed too fast to be safe.**

**FACT:** Both the Pfizer-BioNTech and Moderna COVID-19 vaccines are mRNA vaccines, which are not new. Scientists have been working on mRNA vaccines for decades for a variety of illnesses — SARS, MERS, Zika, Ebola, newer influenza vaccines and even some seasonal coronaviruses — and that gave them a huge head start when it was time to work on COVID-19 vaccines.

The other type of authorized COVID-19 vaccine (Johnson & Johnson) employs a weakened adenovirus, which also has been studied extensively in developing other vaccines. Additional reviews by the CDC and FDA have found the J&J vaccine is safe and effective in preventing COVID-19 among anyone age 18 and older. Women under age 50 concerned about the very rare risk of the clotting disorder should know that there are other COVID-19 vaccine options available (the clots have not been associated with the Pfizer-BioNTech or Moderna vaccines).

The clinical trials for the 3 authorized COVID-19 vaccines were all done with the same rigor applied to all vaccine trials, and the results were reviewed and approved by multiple independent advisory panels.

**MYTH: I need to wait for full FDA approval to get vaccinated.**

**FACT:** With the Delta variant and increased transmission, the CDC says it's more urgent than ever to get vaccinated as soon as possible, and the authorized vaccines are safe and effective:

The 3 available vaccines have met the FDA's rigorous scientific standards for safety, effectiveness, and manufacturing quality needed to support emergency use authorization (EUA).

The vaccines were evaluated in tens of thousands of participants in clinical trials.

Millions of people in the U.S. have received the vaccines since they were authorized for emergency use.

According to the CDC, the vaccines have undergone and will continue to undergo the most intensive safety monitoring in U.S. history. This monitoring includes using both established and new safety monitoring systems to make sure vaccines are safe.

The FDA itself has emphasized that it conducted a thorough scientific evaluation of each of the authorized vaccines and can assure the public and medical community that the vaccines meet FDA's rigorous standards for safety, effectiveness and manufacturing quality.

**MYTH: Possible long-term side effects are too risky since we don't know what they are yet.**

**FACT:** With any vaccine, any side effects will typically show up within 6 weeks after the injection. Vaccines have been studied over decades, and do not typically have delayed or long-term side effects. Some, like the smallpox vaccine, are very, very old, and none have resulted in side effects 10 or 20 years later. Conversely, we don't know what the long-term effects of getting the virus are — and those are more likely to be problematic.

**MYTH: I have allergies, so it's not worth the risk.**

**FACT:** Severe allergic reaction (anaphylaxis) to the vaccines have been very rare, averaging just 2.5 per 1 million vaccinations with the Moderna vaccine and 4.7 per 1 million vaccinations with the Pfizer vaccine. To put that in perspective, anaphylaxis to penicillin occurs in 1 in 25,000 recipients.

If you have concerns, certainly talk to your doctor and plan to wait 30 minutes after getting your shots for observation. If you are severely allergic to any of the vaccine's ingredients, you should not be vaccinated. People with allergies to certain foods, insects, latex and other common allergens, however, can get a COVID-19 vaccine.

**MYTH: The vaccines contain unsafe toxins and microchips.**

**FACT:** Microchips are not injected into anyone. That is physically impossible. Microchips are, however, located on the vaccine packaging so that pharmacists and physicians can track doses and ensure they're not expired or counterfeit. The vaccines' ingredient list includes mRNA (which is destroyed by the body in a day or two), cholesterol (in amounts much lower than is already consumed by people) and non-toxic fatty molecules.

**MYTH: I already had COVID-19 and have antibodies so I don't need the vaccine.**

**FACT:** According to the CDC, you should be vaccinated regardless of whether you already had COVID-19. That's because experts do not yet know how long you are protected from getting sick again after recovering. Having an infection does NOT guarantee a strong immune defense. Research indicates that immunity from vaccination is likely to be stronger than immunity following infection.