

Busted: Vaccine Myths (& Some Things That Are True)

Everyone who receives a COVID-19 vaccine has serious side effects.



Many people have no side effects at all. For people who do have side effects, the most common symptoms have been soreness at the site of vaccination, headaches, and fatigue. Some people have had body aches and rarely (less than 10%) people have had chills and/or a fever. If people are going to have side effects, they typically start 1–2 days after vaccination and last for 1–2 days. Some people have had more side effects with the second dose of vaccine — but, the side effects are short lasting. All of these are signs that the vaccine is working. While we would prefer that no one who received the vaccine had any side effects, we think the benefit of protection against a potentially lethal virus **far** outweighs the possible side effects of the vaccine.

COVID-19 vaccines cause infertility.



The vaccine has no effects on fertility.

COVID-19 vaccines can alter the DNA of people who receive them.



The vaccines **do not** change your DNA. For all four COVID-19 vaccines in use or under development, the main function is to bring messenger RNA into a part of our cell called the cytoplasm. DNA is in the nucleus of our cells. There is a wall around the nucleus that prevents RNA from getting into the nucleus. Thus, the vaccines cannot change our DNA.

COVID-19 vaccines contain human stem cells.



None of the vaccine injections contain human cells. The Pfizer and Moderna vaccines do not use human cells in any way.

The AstraZeneca and Janssen vaccines use an adenovirus that needs to grow in cells. After the virus is grown, it is purified from the cells to be used in the vaccine. The cells that are used are from a line that is about 60 years old. The use of human cells in the development and production of these vaccines is complicated. We encourage you to research the question and discuss with your provider if you have questions or concerns.

COVID-19 vaccines were developed and approved so quickly that appropriate safety checks weren't done.



Things have moved faster than normal, but scientists have done everything correctly. The FDA was able to approve an Emergency Use Authorization for the Pfizer vaccine based on its good safety and efficacy profile. Almost 40,000 people enrolled in Pfizer trials nationwide, more than 30,000 enrolled in Moderna and close to 30,000 for both Janssen and AstraZeneca. Thus, there is a lot of safety data to consider during the authorization process.

Children need to get vaccinated against COVID-19.



Currently, there is no vaccine against COVID-19 authorized for children 15 or younger. However, when a COVID-19 vaccine is authorized for children, we will advocate that every eligible child be vaccinated against COVID-19. The vaccine is important for the health and safety of children — and also to prevent them from spreading the disease to adults such as parents, grandparents, and teachers.

COVID-19 vaccines can give me COVID-19.



The vaccines contain only a piece of the virus. Depending on the vaccine, it either contains the piece of the virus that tells our body to make the spike protein or it contains the spike protein itself. The spike protein is what the virus uses to attach to our cells and start an infection. The body then makes antibodies to the spike protein. The vaccine does not contain the whole virus, so it is impossible to get COVID-19 by getting vaccinated.

Millions of Americans might die of COVID-19 if we don't get vaccinated.



The overall fatality rate for COVID-19 is about 2%. That rate might sound small, but if you apply it to the entire U.S. population it would equate to 5 to 10 million people who would die from COVID-19. The goal of the vaccine is to help us reach herd immunity with a lot less illness and mortality.

For more information visit us at cincinnatichildrens.org/patients/vaccines/physicians

