

COVID-19 Vaccine Myth vs. Fact

Debunking common falsehoods



Know the facts about COVID-19 vaccines. Here are some common myths you may be hearing, along with the scientific facts. This information is excerpted and compiled from the “myth versus fact” web pages of Johns Hopkins University and the Mayo Clinic, supplemented by other sources.

Myth: The COVID-19 vaccine is not safe because it was rapidly developed and tested.

Fact: The COVID-19 vaccines from Pfizer/BioNTech and Moderna, the two approved so far, were created with mRNA technology that has been in development for years. Because of the urgency and seriousness of the pandemic, the U.S. government and other governments have devoted billions to vaccine development and research. The entire global scientific community has focused its attention on vaccine development, and it has drawn on vaccine research done for previous SARS and MERS outbreaks. At the same time, the U.S. Food and Drug Administration is putting each vaccine candidate through its usual rigorous approval process which includes four phases of clinical trials involving tens of thousands of people; no shortcuts are being taken. Clinical trials for the Pfizer/BioNTech and Moderna vaccines have shown 95% effectiveness and minimal side effects.

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

Fact: The COVID-19 vaccine can have side effects, but the vast majority are very short term—not serious or dangerous. The vaccine developers report that some people experience pain at the injection site, along with body aches, headaches or fever, lasting for a day or two. These are signs that the vaccine is working to stimulate your immune system as it was designed to.

Myth: The COVID-19 vaccines were not tested among minority groups so we don’t know if the vaccines are safe for them.

Fact: Developers of the vaccines are making great effort to recruit African Americans, Hispanics and other minorities to the clinical trials and overcome past under-representation. Over 6,000 African Americans and 16,000 Hispanics have participated in the trials for these two vaccines. Pfizer/BioNTech and Moderna each report that 10% of their trial participants were Black, compared to 12% of the U.S. population. For Hispanics, while they represent 18% of the population, they comprised 26% of Pfizer trial participants and 20% of Moderna participants. No difference in efficacy is reported between whites and people of color for either vaccine.

Myth: Getting the COVID-19 vaccine gives you COVID-19.

Fact: The vaccine for COVID-19 cannot and will not give you COVID-19. The two authorized mRNA vaccines instruct your cells to reproduce a protein that is part of the SARS-CoV2 coronavirus, which helps your body recognize and fight the virus, if it comes along. The COVID-19 vaccine does not contain the SARS-CoV2 virus, so you cannot get COVID-19 from the vaccine. The protein that helps your immune system recognize and fight the virus does not cause infection of any sort.

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Myth: COVID-19 vaccines will alter my DNA.

Fact: The first COVID-19 vaccines to reach the market are messenger RNA (mRNA) vaccines. According to the Centers for Disease Control, 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 vaccine was developed to control the general population through microchip tracking.

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 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 COVID-19 vaccines.

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

Fact: Neither the Pfizer/BioNTech COVID-19 nor the Moderna COVID-19 vaccines contain fetal cells nor were fetal cells used in the development or production of either vaccine.

Myth: COVID-19 vaccines cause infertility or miscarriage.

Fact: COVID-19 vaccines have not been linked to infertility or miscarriage by any scientifically plausible study.

Myth: I won't need to wear a mask after I get vaccinated for COVID-19.

Fact: Individuals who get the COVID-19 vaccination still need to practice infection prevention precautions until we get closer to herd immunity, when 75-80% of the population has been immunized or case counts have dropped to a minimal level. Vaccines do not stop the coronavirus from entering your body; they only prevent you from developing moderate to severe COVID-19. It is still possible that you could be an asymptomatic spreader even after being vaccinated. Until more is understood about how well the vaccine works, people should continue with precautions such as wearing a mask and practicing physical distancing.

References

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