



COVID-19 Vaccination Frequently Asked Questions

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How did we develop vaccines so quickly?

These vaccines were able to be developed so quickly because the U.S. Congress directed nearly \$10 billion to Operation Warp Speed, which was the project with the goal of producing and delivering 300 million safe and effective doses of vaccine by January 2021. While that goal has not been met, the vaccines were developed unprecedentedly quickly. On Twitter, Dr. Sydnee McElroy, a family doctor, compared the speed of vaccine development to expedited shipping, where you pay more to get your items faster, but they are still handled safely.

How do the Pfizer and Moderna vaccines work?

The Pfizer and Moderna vaccines are both mRNA (messenger RNA) vaccines. These are a new type of vaccines that trigger an immune response by using mRNA to instruct cells to make a harmless snippet of the spike protein that is found on the surface of the Sars-CoV-2 virus, which causes COVID-19. This protein triggers an immune response in the body, producing antibodies and protecting vaccinated people from getting infected if they are exposed to the real virus.

How do the two approved vaccines differ?

While the Pfizer and Moderna vaccines are both mRNA vaccines with similar efficacy (95% and 94.1% respectively), they have a few important differences. For one, while the Pfizer vaccine is approved for people 16 and older, the Moderna vaccine is restricted to those 18 and older. And while both need two doses, the Pfizer one requires 21 days between doses and Moderna requires 28. A key difference, however, is storage temperature. The Moderna vaccine is easier to ship, because it needs to be stored at -4 Fahrenheit. On the other hand, the Pfizer vaccine needs to be stored at a much lower temperature: -94 Fahrenheit.

Are there any side effects?

Both the Pfizer and Moderna vaccines can trigger a range of side effects. Most are mild, such as pain at the injection site, headache, fatigue, and muscle and joint pain, and some people in clinical trials reported fever. These side effects are completely normal and are a symptom of the immune response kicking in. However, there have been very few more serious allergic reactions to the Pfizer vaccine.

How far apart are the first and second doses?

In order to be as effective against COVID-19 as possible, both the Pfizer and Moderna vaccines require two doses. The Pfizer vaccine requires an interval of 21 days between doses, and the Moderna vaccine an interval of 28 days.

How do we know these vaccines are safe?

These vaccines were approved in record time through emergency use authorization. However, they still went through all three phases of clinical trials in order to ensure safety and efficacy. In addition, the vaccine went through a manufacturing investigation and has been approved by the FDA. And as the vaccine is rolled out, it is monitored for any unexpected side effects

What does 'emergency use' mean vs. full approval?

The Pfizer and Moderna vaccines have been authorized for emergency use, signaling how dire the pandemic is. However, this does not mean that the vaccine has been approved by the FDA. The process for approval “involves rigorous reviews of all available data on the product and can take several months.”

Why are two doses necessary?

By giving multiple doses of a vaccine, the body has a chance to produce more antibodies against the virus because it is exposed to more antigens, which create more memory cells. This means that when the body is exposed to the real virus, it will have a faster and more effective antibody response. In the case of these two vaccines, two doses is the best way to create the most effective number of memory cells and antibodies.

How long does it take for the vaccine to work?

The Pfizer vaccine offers immunity no less than seven days after the final dose and the Moderna vaccine offers immunity no less than 14 days after the final dose. It is so far unknown how long immunity will last, although experts think that it should last for a few years. However, more studies will need to be done.

Why have some people had allergic reactions?

In very few instances, the Pfizer vaccine has caused a severe allergic reaction. Scientists think this might be due to a compound, polyethylene glycol (PEG), used to package the mRNA. PEG has never been used in an approved vaccine (this is an authorized vaccine), but it is found in drugs that occasionally trigger severe anaphylactic reactions. However, some scientists are still skeptical of the causation.

What are the priority health conditions for vaccination?

The ACIP says that the following high-risk health factors would qualify someone to be part of a priority group for the vaccine: “obesity, severe obesity, type 2 diabetes, COPD, a heart condition, chronic kidney disease, cancer, immunocompromised state as the result of a solid organ transplant, sickle cell disease, pregnancy, and smoking.”

How many people have been vaccinated so far?

The up-to-date numbers on COVID-19 vaccinations can be found on the CDC COVID Data Tracker website. As of Jan. 9, 2021, a total of 6,688,231 had received the first dose of one of the two vaccines, and 22,137,350 doses had been distributed.

Do I need to provide personal information?

While this answer may vary somewhat by state and county, the CDC will collect personal information such as names, addresses, ethnicities, and birthdays of recipients of the COVID-19 vaccine. They are asking states to sign a data-sharing agreement to hand over data taken at vaccination sites to the federal government. Administration officials say that the data won't be shared with other federal agencies, rather that it is needed to track adverse reactions and effectiveness.

Do we still need masks and social distancing after vaccination?

Even after receiving two doses of the COVID-19 vaccine, it will still be necessary to wear a mask and follow the other recommended hygiene and distancing protocols. This is because it will take time for everyone to be vaccinated and because, according to the CDC, “experts need to understand more about the protection that COVID-19 vaccines provide before deciding to change recommendations on steps everyone should take to slow the spread of the virus that causes COVID-19.”