

What You Need to Know about the Pfizer and Moderna COVID-19 Vaccines

How do the vaccines work?

All COVID-19 vaccines cause the immune system to respond against the virus that causes COVID-19. The two available vaccines made by Pfizer and Moderna are both mRNA vaccines.

1. mRNA vaccines give instructions to our cells to make a harmless piece of “spike protein.” The spike protein is found on the surface of the virus that causes COVID-19.
2. After the spike protein is made, the cell breaks down the instructions (mRNA) and gets rid of them.
3. The body now recognizes that the spike protein should not be there. It builds immune cells (called antibodies) that will remember how to fight the virus that causes COVID-19 if we are infected in the future.

Important Note: mRNA vaccines do not contain a live virus and do not cause disease in the vaccinated person. The mRNA vaccines do not change the recipient's DNA.

How many shots am I going to need?

The Pfizer vaccine requires 2 doses, 21 days apart. The Moderna vaccine requires 2 doses, 28 days apart. It takes time for your body to build protection after any vaccination. The two COVID-19 vaccines may not protect you until 1-2 weeks after your second shot.

How effective is the vaccine?

In clinical trials, the Pfizer and Moderna vaccines were shown to be about 95% effective at preventing illness caused by the coronavirus.

How do we know if COVID-19 vaccines are safe?

COVID-19 vaccines were tested in large clinical trials that included tens of thousands of people. This is done to make sure they meet safety standards and see how the vaccines offer protection to people of different ages, races, and ethnicities, as well as those with different medical conditions. No significant safety concerns were identified in the clinical trials. At least 8 weeks of safety data were gathered in the trials. It is unusual for side effects to appear more than 8 weeks after vaccination.

Important note: The development of these vaccines has been accelerated while maintaining all safety standards. Rather than eliminating steps from traditional vaccine development timelines, steps were happening at the same time, such as scaling up manufacturing while safety and efficacy data are collected.

What are the side effects of the vaccine?

In the vaccine clinical trials, most people did not have serious problems after being vaccinated. The symptoms usually went away on their own within a week. Some people reported getting a headache or fever when getting a vaccine. These side effects are a sign that your immune system is doing exactly what it is supposed to do. It is working to build up protection against disease. More people experienced these side effects after getting the second dose than the first one.

Is the vaccine safe for pregnant women and people with conditions or medications that can weaken the immune system?

The early clinical trials did not test the vaccines in these populations but based on the current data, the benefit of receiving the COVID-19 vaccine is greater than the risks of getting COVID-19. **Talk to your health care provider about the potential risks and benefits of the vaccine in your specific situation.**

I already had COVID-19 and recovered. Do I still need to get vaccinated?

There is not enough information currently available to say if or for how long after infection someone is protected from getting COVID-19 again. This is called natural immunity. Early evidence suggests that people who recovered from COVID-19 are not likely to get the infection again in the 90 days after the initial infection. If you tested positive and recovered from COVID-19 you may decide to wait until near the end of this period to get vaccinated.

Do I need to wear a mask and avoid close contact with others if I have received 2 doses of the vaccine?

Yes. While experts learn more about the protection that COVID-19 vaccines provide under real-life conditions, it will be important for everyone to continue using all the tools available to us to help stop this pandemic, like covering your mouth and nose with a mask, washing hands often, and staying at least 6 feet away from others. Experts need to understand more about the protection that COVID-19 vaccines provide before deciding to change the recommendations.

Where can I learn more about the COVID-19 Vaccines?

For current and accurate information about the COVID-19 vaccines visit:

- Michigan Medicine: COVID-19 Vaccine Information and Update: <https://www.uofmhealth.org/coronavirus/vaccine-info-update>
- CDC: COVID-19 Vaccines: <https://www.cdc.gov/coronavirus/2019-ncov/vaccines>
- FDA Pfizer-BioNTech COVID-19 vaccine Frequently Asked Questions <https://tinyurl.com/yaqwyjam>
- FDA Moderna COVID-19 vaccine information <https://tinyurl.com/ycjtnrqq>

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Adapted from:

CDC: COVID-19 Vaccines. Access at: <https://www.cdc.gov/coronavirus/2019-ncov/vaccines>

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