COVID-19 Vaccines: Facts and Myths

COVID-19 Vaccine: The Shot, Puncture, Jab for Family, Friends, and Community

The COVID-19 vaccine program is rolling out well in Maine. Currently anyone over age 16 is eligible for a COVID-19 vaccine. Vaccine supply issues are improving and the number of immunized Mainers is rising.

I will briefly review the three COVID-19 vaccines available in Maine; how they differ from each other, and the expected possible side effects. I will supply links to resources that review these issues in more depth, and to information concerning how to schedule a vaccine. (This information changes frequently, but the resources are updated regularly.)

I will use a Frequently Asked Questions (FAQ) format with questions and answers concerning facts and myths about COVID-19 vaccines. I will supply references for my answers.

In an age of wide-spread internet access and with the rise of social media, it is easy for misinformation to be shared. It is worth noting that in 2016, the Oxford Dictionary selected “post-truth” as the word of the year, defining it as “relating to or denoting circumstances in which objective facts are less influential in shaping public opinion than appeals to emotion and personal belief.” Historically, people seem to have an instinct to seek information that aligns with their views. Unfortunately this makes many of us vulnerable to accepting and acting on misinformation.¹


I. Which COVID-19 Vaccines are currently available in Maine?

1. Pfizer-BioNTech: 2 shots; 2nd shot 3 weeks after 1st shot-presumed immunity 14 days after 2nd shot
2. Moderna: 2 shots; 2nd shot 4 weeks after 1st shot-presumed immunity 14 days after 2nd shot
3. Johnson & Johnson/Janssen: 1 shot-presumed immunity 14 days later- PLEASE SEE BELOW RE: PAUSE OF J&J VACCINE:

After receiving reports of a rare blood clot in people receiving the Johnson & Johnson COVID-19 vaccine, the FDA and the CDC have recommended a pause in the use of the vaccine, pending further investigation. After reviewing data, the agencies found six reports of people who experienced rare blood clots in combination with low platelets (a part of our red blood cells that helps our blood stick together & prevent bleeding.) The six reports were found out of more than 6.8 million doses given.

The FDA and the CDC initiated the pause “out of an abundance of caution.” We don’t have a definitive answer for why this happened, but it appears to involve an immune response related to the J&J vaccine that adversely affects platelet function, which then prevents the normal clotting process from occurring.²

"Joint CDC and FDA Statement on Johnson & Johnson COVID-19 Vaccine."
Johnson & Johnson: "Johnson & Johnson Statement on COVID-19 Vaccine."
William Schaffner, MD, professor of preventive medicine and infectious disease specialist, Vanderbilt University Medical Center, Nashville.
Robert Glatter, MD, emergency physician, Lenox Hill Hospital, New York City.
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All of the vaccines teach our immune system how to recognize and fight the virus that causes COVID-19. Sometimes this process can cause symptoms, such as fever. These symptoms are normal and are a sign that the body is building up protection against the virus that causes COVID-19.

III. How do COVID-19 vaccines work?

It typically takes a few weeks for the body to build up immunity (protection against the virus that causes COVID-19) after vaccination. This means it is possible a person could be infected just before or after vaccination and still get sick. This is because the vaccine has not had time to provide protection.

IV. After getting a COVID-19 vaccine, will I test positive for COVID-19 on a viral test?

No. Neither the recently authorized recommended vaccines nor the other COVID-19 vaccines currently in clinical trials in the United States can cause you to test positive on viral tests, which are used to see if you have current infection.

If your body develops an immune response—the goal of vaccination—there is a possibility that you may test positive on some antibody test. Antibody test indicate you have had a previous infection and that you may have some level of protection against the virus. Experts are currently looking at how the COVID-19 vaccination may affect antibody testing results.

At this point, antibody testing after COVID-19 vaccination is not recommended and does not supply enough relevant information.

V. If I have already had COVID-19 and recovered, do I still need to get vaccinated with COVID-19 vaccine?

Yes, you should be vaccinated regardless of whether you already had COVID 19. That is because experts do not know how long you are protected from getting sick again after recovering from COVID 19. Even if you have already recovered from COVID-19, it is possible—although rare—that you could be infected with the virus that causes COVID-19 again. If you were treated for COVID-19 with monoclonal
antibodies or convalescent plasma, you should wait 90 days before getting a COVID-19 vaccine. Talk to your health provider about what treatments you received and if you have any questions about a COVID-19 vaccine.

Experts are still learning about more about how long vaccine protect against COVID-19 in real-world conditions. CDC will keep the public informed as new evidence becomes available.

VI. Will a COVID-19 vaccination protect me from getting sick with COVID-19?

Yes. COVID-19 vaccination works by teaching your immune system how to recognize and fight the virus that causes COVID-19, and this protection from getting sick with COVID-19.

Being protected from getting sick is important because even though many people with COVID-19 have only mild illness, others may get severe illness, have long-term health effects, or even die. There is no way to know how COVID-19 will affect you, even if you do not have an increased risk of developing severe complications.

VII. Will a COVID-19 vaccine alter my DNA? How are the Pfizer and Moderna vaccines different from Johnson & Johnson Jansen COVID-19 vaccine?

No. COVID 19 vaccine to not change or interact with your DNA and anyway. There are currently 2 types of COVID-19 vaccine that have been authorized for use in the United States: messenger RNA (mRNA) vaccines and viral vector vaccines.

A. the Pfizer-BioNTech and Moderna vaccines are mRNA vaccines, which teach our cells how to make a protein that triggers an immune response. The mRNA from a COVID-19 vaccine never enters the nucleus of the cell, which is where home our DNA is kept. This means the mRNA cannot affect or interact with our DNA in any way. Instead, COVID 19 MR a vaccine work with the body's natural defense is to safely developed immunity to disease. You can learn more about mRNA vaccines work by checking this link: how COVID-19 mRNA vaccines work

B. Johnson & Johnson's Jansen COVID-19 vaccine is a viral vector vaccine. Viral vector vaccines use a modified version of a different, harmless virus (the vector) to deliver important instructions to our cells to start building protection. The instructions are delivered in the form of genetic material. This material does not enter great into a person's DNA. These interactions tell the cell to produce a harmless piece of virus that causes COVID-19. This is a spike protein and is only found on the surface of the virus that causes COVID-19. This triggers our immune system to recognize the virus that causes COVID-19 and to begin producing antibodies and activating our immune cells to fight off what it thinks is an infection.

PLEASE SEE ABOVE RE: CURRENT “PAUSE” OF THE J&J VACCINE

Learn more about how viral vector vaccines work by checking this link: how viral vector vaccines work.

At the end of the process, our bodies have learned how to protect against future infection in COVID 19. That immune response and the antibodies that are bodies may protect us from getting infected if the real virus enters our bodies.
VIII. Is the vaccine safe for pregnant women or for woman who want to become pregnant in the future?

Yes. If you are pregnant or trying to become pregnant now or want to be pregnant in the future you may receive a COVID-19 vaccine when 1 is available to you.

There is currently no evidence that the COVID-19 vaccination causes any problems with pregnancy, including the development of the placenta. In addition, there is no evidence that fertility problems are a side effect of ANY vaccine, including COVID-19 vaccines.

Like all vaccines, scientist are studying COVID-19 vaccines carefully for side effects now and will continue to study them for many years.³


IX. Are COVID-19 vaccines safe? What you need to know:

- COVID-19 vaccines are safe and effective. Some people have no side effects. Many people have only mild side effects after COVID-19 vaccination.
- Millions of people in the United States have received COVID-19 vaccines and these vaccines will undergo the most intensive safety monitoring in U.S. history.
- CDC recommend you get your vaccine as soon as available. Currently all Mainers over the age of 16 are eligible for the vaccine.
- Adverse events/side effects have been reported to the Vaccine Adverse Event Reporting System (VAERS) external icon.
- To date, the VAERS has not detected patterns and cause of death that would indicate a safety problem COVID-19 vaccines. The CDC, FDA, and other federal partners will continue to monitor the safety of the COVID-19 vaccines.
- Anaphylaxis after COVID-19 vaccination: Severe allergic reactions, including anaphylaxis can occur after any vaccination. Anaphylaxis after COVID-19 vaccination is rare. If this occurs, vaccination providers can effectively in immediately treat the reaction. Anaphylaxis occurred in approximately 2-5 people per million who received a COVID-19 vaccine vaccinated in the United States based on events reported to VAERS. This kind of reaction almost always occurs within 30 minutes after vaccination. Vaccination providers have medicine available to affectively and immediately treat patients who experience and full access following vaccination.

Learn more about COVID-19 vaccines and allergic reactions.


X. Are there reports of death after COVID-19 vaccination?

To date, Vaccine Adverse Event Reporting System (VAERS) has not detected patterns in cause of death that would indicate a safety problem with COVID-19 vaccines.

- Over 167 million doses of COVID-19 vaccines were administered in the United States from December 14, 2020 through April 5, 2021. During this time VAERS received 2,794 reports of death (0.0016 7%) among people who received a COVID-19 vaccine. CDC and FDA physicians review each case report of death as soon as notified and CDC request medical records to further assess reports. A review of the available clinical information including death certificate, autopsy, and medical records revealed no evidence that vaccination contributed to patient deaths. CDC and FDA will continue to investigate reports of adverse events, including deaths, reported to VAERS.  


XI. What about waiting for “Herd Immunity” to take affect: Waiting for herd immunity (meaning having enough people become infected with COVID-19) would result in many people becoming infected and dying from COVID-19. We need to have about 85% of the population vaccinated against COVID-19 to rely on the benefit of “herd immunity”.

XII. Where can I get the COVID-19 vaccine and will I have to pay for it?

The COVID-19 vaccine is free to everyone whether you have insurance or not. You may be asked about insurance, but your insurance will not be charged.

All vaccines are appointment only. If you receive a Pfizer or Moderna COVID-19 vaccine, make your appointment at the same clinic site for the 2nd vaccine.

Call the Maine COVID-19 Community Vaccination line: 1-888-445-4111 to make an appointment. You may need to leave a phone number and possibly your date of birth.

(If you are a Seaport Community Health Center patient in Belfast, you may call 207-338-6900 to arrange an appointment for the COVID 19 vaccine, which are now being administered while you wait in your car in the parking lot at the scheduled appointment time.)

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4 Selected Adverse Events Reported After COVID-19 Vaccination: Center for Disease Control and prevention, updated April 6, 2021

5 https://www.maine.gov/covid19/vaccines/vaccination-sites
Check out this link/website for up to date information concerning COVID-19 vaccine access.

https://www.maine.gov/covid19/vaccines/vaccination-sites

Submitted by Carol Kuhn, MD April 15, 2021

References/links:

   

   William Schaffner, MD, professor of preventive medicine and infectious disease specialist, Vanderbilt University Medical Center, Nashville.
   Robert Glatter, MD, emergency physician, Lenox Hill Hospital, New York City.

   

4. Selected Adverse Events Reported After COVID-19 Vaccination: Center for Disease Control and prevention, updated April 6, 2021
   

5. https://www.maine.gov/covid19/vaccines/vaccination-sites