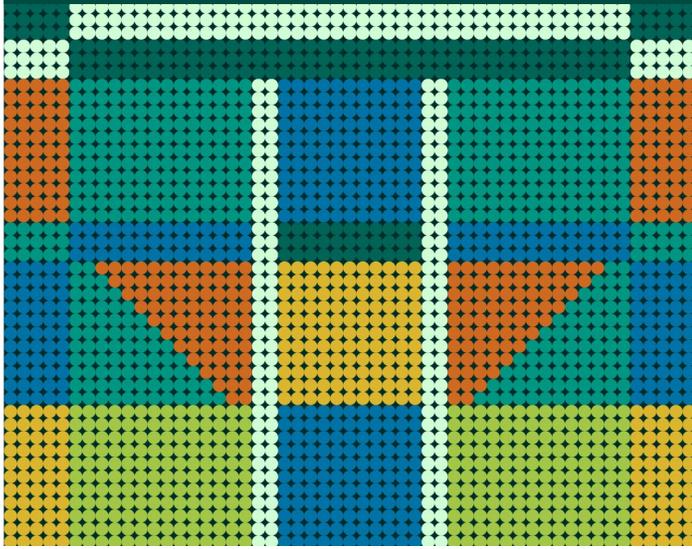# Information about mRNA COVID-19 Vaccines

(i.e., Moderna and Pfizer)

This fact sheet contains information about the mRNA COVID-19 vaccines (i.e., Moderna and Pfizer-BioNTech) to help you make the most informed decision possible about getting the vaccine to better protect yourself, your loved ones, and tribal communities—both urban and rural.

> The Centers for Disease Control and Prevention (CDC) currently recommends COVID-19 vaccination for everyone ages 5 and up.

The Moderna COVID-19 vaccine received approval from the United States Food and Drug Administration (FDA) on January 31, 2022, for ages 18 and up. The Pfizer vaccine received approval from the FDA on August 23, 2021, for ages 16 and up. The Pfizer vaccine also received Emergency Use Authorization (EUA) from the FDA for ages 5–15.

Who are the vaccines for?

The vaccines are used to prevent COVID-19 infection, hospitalization, and severe disease. The Moderna vaccine is available for those 18 years and older, while the Pfizer vaccine is available for those 5 years and older.

However, you should talk with your provider to discuss the risks and benefits before getting the vaccine if you:

- have any allergies, especially to other vaccines.
- have had myocarditis or pericarditis.
- have a bleeding disorder or are on a blood thinner.
- are immunocompromised or are taking medication that affects your immune system.
- have a fever.
- are pregnant or plan to become pregnant.
- are breastfeeding.
- have received another COVID-19 vaccine.[1,2]

You should not get the vaccine if you have had a severe allergic reaction after a previous dose of the vaccine or if you have had a severe allergic reaction to any of the vaccine ingredients. A list of ingredients can be found on the official Moderna/Pfizer-BioNTech fact sheets.[1,2]

Are the vaccines safe?

The COVID-19 vaccines are safe and effective. They have been thoroughly tested and will continue to be closely monitored for safety by the FDA. During clinical trials, over 70,000 people participated in testing the vaccines, including a small number of Native people. According to the CDC, over 198 million people are fully vaccinated with either the Moderna or Pfizer COVID-19 vaccine as of February 23, 2022.[3]

How do the vaccines work?

The Moderna and Pfizer vaccines are messenger RNA vaccines—also called mRNA vaccines. This means that they use mRNA to teach your cells how to make a protein that starts an immune response inside your body. This immune response then produces antibodies that will help protect you if you are exposed to or contract COVID-19.

mRNA science has been studied for decades, which Moderna and Pfizer-BioNTech used to assist in creating the current vaccines. These vaccines do not use the live virus that causes COVID-19 and cannot cause infection. mRNA cannot alter your DNA in any way and is broken down by your body naturally after a few days.[4]

How are the vaccines given?

The vaccines are given in a series of two doses injected into the muscle in your upper arm. After receiving the first dose, you must plan on returning within 28 days (Moderna) or 21 days (Pfizer) for the second dose.

It is recommended that people ages 5 and older who are moderately to severely immunocompromised receive an additional, or third dose, of an mRNA vaccine. The third dose should be the same vaccine used for your primary series and given 28 days after your second dose. If you have a compromised immune system, you should speak with your provider to see if a third dose is recommended for you.

What are the benefits of getting vaccinated?

Current data and clinical trials show that the vaccines are effective and help protect us from getting sick or severely ill with COVID-19. Vaccination also protects those around us by helping to reduce the spread of disease.

However, no vaccine is 100% effective, and some people who are fully vaccinated might still get sick and experience a breakthrough infection.[5] It is important to continue practicing health and safety measures to help stop the spread of COVID-19, even after you are vaccinated.

Safety measures differ based on state, county, and city, and may include:

- wearing a mask to protect yourself and others.
- watching your distance.
- washing your hands.
- following local public health recommendations.

What are the potential side effects?

Common side effects that have been reported after receiving the vaccines include:

- pain, swelling, or redness at the injection site.
- tenderness and swelling of the lymph nodes in the same arm of the injection.
- headache or fatigue.
- muscle or joint pain.
- chills or fever.
- nausea or vomiting.[1,2]

Side effects after your second shot may be more intense than those experienced after your first shot. While more serious side effects (such as severe allergic reactions) have been reported, these side effects are considered rare. Scientists have determined that the benefits of vaccination outweigh the known and potential risks.

The CDC is also monitoring rare reports of heart inflammation, also known as myocarditis or pericarditis, after mRNA COVID-19 vaccination. Cases have been reported more often after the second dose than after the first dose. These have occurred more commonly in male adolescents and young adults under the age of 30, typically within several days following vaccination. You should seek medical care if you experience chest pain, shortness of breath, or a fluttering or pounding heart after vaccination. Most patients who developed myocarditis or pericarditis after vaccination responded well and felt better after rest and minimal treatment.[6]

If you have adverse symptoms after receiving your vaccine…

Don't worry, these symptoms typically resolve within a few days. Call your provider if any side effects do not go away. In addition, you can report any side effects or concerns directly to the vaccine manufacturer.

For the Moderna vaccine
Report any side effects to ModernaTX, Inc. at 1–866–MODERNA (1–866–663–3762).

For the Pfizer vaccine
Report any side effects to Pfizer Inc. at 1–800–438–1985. You can also visit www.cvdvaccine.com or call 1–877–829–2619 for other concerns/questions.

Do I need a COVID-19 booster shot?

Based on available data, scientists have determined that a booster shot is needed to maintain protection against COVID-19 over time. The vaccines are working well to prevent severe illness and hospitalization as a result of COVID-19, but a booster dose will help give you increased protection from the virus and new variants. Many other vaccines also require booster shots, including the flu shot, HPV vaccine, and Tdap (Tetanus, Diphtheria, Pertussis) vaccine.

Booster shots of the Moderna and Pfizer vaccines are currently available under EUA by the FDA. If you are 18 years of age and older and received your second dose of the Moderna vaccine at least 5 months ago, you are now eligible to receive a booster shot. If you are 12 years of age and older and received your second dose of the Pfizer vaccine at least 5 months ago, you are now eligible to receive a booster shot.

The FDA also authorized "mix and match" booster shots for eligible adults. This means that if you are 18 years and older, you may choose to receive the same vaccine type that you originally received or one of the other currently available booster shots (Moderna, Pfizer, or J&J/Janssen). The use of an mRNA COVID-19 vaccine (Moderna or Pfizer) is preferred over the J&J/Janssen vaccine. Teens ages 12–17 years old should receive the Pfizer COVID-19 booster shot.[7]

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