



## COVID-19

# Moderna COVID-19 Vaccine Overview and Safety

Updated Aug. 19, 2021

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**NOTICE:** HHS [announced a plan](#) to begin offering COVID-19 vaccine booster shots this fall. CDC's independent advisory committee, the Advisory Committee on Immunization Practices, will continue to meet and discuss data on the evolution of the pandemic and the use of COVID-19 vaccines. ACIP will make further recommendations on the use of boosters for the public after a thorough review of the evidence.

Cases of myocarditis and pericarditis in adolescents and young adults have been reported more often after getting the second dose than after the first dose of one of the two mRNA COVID-19 vaccines, Pfizer-BioNTech or Moderna. **These reports are rare and the known and potential benefits of COVID-19 vaccination outweigh the known and potential risks, including the [possible risk of myocarditis or pericarditis](#).**

## General Information

**Name:** mRNA-1273

**How Given:** Shot in the muscle of the upper arm

**Manufacturer:** ModernaTX, Inc.

**Does NOT Contain:** Eggs, preservatives, latex, metals  
[Full List of Ingredients](#)

**Type of Vaccine:** [mRNA](#)

**Number of Shots:** 2 shots, 28 days apart

[Some immunocompromised people](#) should get 3 shots

### Who Should Get Vaccinated

- The Moderna vaccine is recommended for people aged 18 years and older.
- Learn more about [how CDC is making COVID-19 vaccine recommendations](#).

### Who Should NOT Get Vaccinated

- **If you have had a severe allergic reaction (anaphylaxis) or an immediate allergic reaction**, even if it was not severe, to any ingredient in an mRNA COVID-19 vaccine (such as polyethylene glycol), you should not get an mRNA COVID-19 vaccine.
- If you had a severe or immediate allergic reaction **after getting the first dose of an mRNA COVID-19 vaccine**, you should not get a second dose of either of the mRNA COVID-19 vaccines (Moderna or Pfizer-BioNTech).
- A severe allergic reaction is one that needs to be treated with epinephrine or EpiPen or with medical care. Learn about [common side effects of COVID-19 vaccines](#) and when to call a doctor.
- An immediate allergic reaction means a reaction within 4 hours of getting the shot, including symptoms such as hives, swelling, or wheezing (respiratory distress).

If you aren't able to get an mRNA COVID-19 vaccine, you may still be able to get a different type of COVID-19 vaccine. Get more [information for people with allergies](#).

## Possible Side Effects

In the arm where you got the shot:

- Pain
- Redness
- Swelling

Throughout the rest of your body:

- Tiredness
- Headache
- Muscle pain
- Chills
- Fever
- Nausea

These side effects happen within a day or two of getting the vaccine. They are normal signs that your body is building protection and should go away within a few days.

Learn more about [possible side effects after getting a COVID-19 vaccine](#).

### Other Authorized and Recommended COVID-19 Vaccines in the United States.

- [Pfizer-BioNTech](#)
- [Johnson & Johnson's Janssen](#)

**You should get a COVID-19 vaccination as soon as possible.** All currently authorized and recommended COVID-19 vaccines are [safe](#) and [effective](#), and CDC does not recommend one vaccine over another.

COVID-19 vaccines are not interchangeable. If you received a Pfizer-BioNTech or Moderna COVID-19 vaccine, you should get the same product for your second shot.

## Safety Data Summary

- In clinical trials, [reactogenicity symptoms](#) (side effects that happen within 7 days of getting vaccinated) were common but were mostly mild to moderate. Few people had reactions that affected their ability to do daily activities.
- Side effects throughout the body (such as fever, chills, tiredness, and headache) were more common after the second dose of the vaccine.
- CDC will continue to provide updates as we learn more about the safety of the Moderna vaccine in [real-world conditions](#).

Learn more about [vaccine safety monitoring](#) after a vaccine is authorized or approved for use.

## How Well the Vaccine Works

- Based on [evidence from clinical trials](#), in people aged 18 years and older, the Moderna vaccine was 94.1% effective at preventing laboratory-confirmed COVID-19 infection in people who received two doses and had no evidence of being previously infected.
- The vaccine was also highly effective in clinical trials at preventing COVID-19 among people of diverse age, sex, race, and ethnicity categories and among people with underlying medical conditions.
- CDC will continue to provide updates as we learn more about how well the Moderna vaccine works in [real-world conditions](#).

# Clinical Trial Demographic Information

Clinical trials for the Moderna vaccine included people from the following racial, ethnic, age, and sex categories:

## Race

- 79% White
- 10% African American
- 5% Asian
- <3% other races/ethnicities
- <1% American Indian or Alaska Native
- <1% Native Hawaiian or Other Pacific Islander

## Ethnicity

- 79% not Hispanic or Latino
- 20% Hispanic or Latino
- 1% unknown

## Sex

- 53% male
- 47% female

## Age

- 75% 18 through 64 years
- 25% 65 years and older

Twenty-two (22%) of people who participated in the clinical trials had at least one condition that put them at risk of severe illness from COVID-19. The most frequent underlying medical conditions among participants were lung disease, heart disease, obesity, diabetes, liver disease, or HIV infection. Four percent (4%) of participants had two or more high-risk conditions. Most people who participated in the trials (82%) were considered to have an occupational risk of exposure, with 25% of them being healthcare workers.

Learn more about [demographic information for people who participated in the trials \[PDF – 54 pages\]](#) [↗](#).

## Related Pages

- › [Possible Side Effects](#)
- › [Safety of COVID-19 Vaccines](#)
- › [Benefits of Getting Vaccinated](#)
- › [How Vaccines Work](#)
- › [mRNA Vaccines](#)



### For Healthcare Workers

[Moderna COVID-19 Vaccine](#): General information, schedule and administration overview.

## More Information

[Moderna's COVID-19 Vaccine Fact Sheet for Recipients and Caregivers \[PDF – 6 pages\]](#) 

[MMWR: Allergic Reactions Including Anaphylaxis After Receipt of the First Dose of Moderna COVID-19 Vaccine — United States, December 21, 2020–January 10, 2021](#)

[Safety and Reactogenicity Data](#)

Last Updated Aug. 19, 2021