The Pfizer/BioNTech COVID-19 vaccine provides protection against COVID-19 infection. It is one of several vaccines developed to protect against COVID-19 infection.

In a randomized, controlled trial involving over 40,000 volunteers, the vaccine prevented COVID-19 in 95% of people vaccinated. The 95% prevention rate was about the same no matter the age, sex, ethnicity or race of the people who received it.

The Pfizer/BioNTech COVID-19 vaccine is recommended for everyone 5 years of age and older. The vaccine is given in two doses. The second dose is given at least 21 days after the first.

If you or your child are moderately or severely immunocompromised, it is recommended to get a third dose at least 4 weeks after the second dose.

The Pfizer/BioNTech COVID-19 vaccine dose given to children 5 to 11 years old is one-third the dose given to adults and children 12 years and older.
A booster dose of Pfizer/BioNTech vaccine is available to all people 12 years and older. The booster is the same dosage given in the initial vaccine series.

Get the first booster dose 5 months after you received the second dose of your initial vaccine series.

Adults 50 years and older can choose a second booster dose of Pfizer/BioNTech vaccine at least 4 months after the first booster dose.

If you are moderately or severely immunocompromised, get the first booster dose 3 months after you received the third dose of your initial vaccine series.

The second booster dose of Pfizer/BioNTech vaccine is also available to people ages 12 years and older who are moderately or severely immunocompromised. The second booster dose is given at least 4 months after the first booster dose.

Health care providers recommend you get the same brand mRNA vaccine for your booster doses. However, it is safe and acceptable to get any of the authorized mRNA COVID-19 vaccine boosters.

**Do not get a different vaccine brand for your booster dose unless you are 18 years and older.**

Ask your health care provider if you have questions.

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**Risks of a vaccine reaction**

- **Pain.** Most people had pain where the shot was given. This happened with both doses. In some, the injection pain was severe enough to prevent them from doing daily activities.

- **Redness or swelling.** A few people had redness or swelling where the shot was given.

- **Fever.** About 1 in 5 people, 18 to 55 years old, got a fever after they received the vaccine. 1 in 3 of the people who had fevers had a temperature ranging from 100.4 to 101.1 degrees Fahrenheit. The rest ranged from 101.3 to 102.0 degrees Fahrenheit. Only 1 in 10 people, 65 to 85 years old, got a fever after the second dose, ranging from 100.4 to 101.1 degrees Fahrenheit.

- **Fatigue.** About 1 in 4 to 3 in 4 people had fatigue after they received the vaccine. This was more common with the second dose and in younger adults. The fatigue was sometimes severe enough to prevent them from doing daily activities.
• **Chills.** About 1 in 3 to 1 in 2 people had chills. For some, this was severe.

• **Headache, muscle pain or joint pain.** This was reported by some.

These reactions are more frequent and more severe after the second dose and in those 65 years and younger. These side effects generally occurred within 2 days after vaccination and got better in 24 to 48 hours.

You should still get the second dose of Pfizer/BioNTech vaccine even if you had one of these reactions after the first dose.

People sometimes faint after medical procedures, including vaccinations. Tell your provider if you feel dizzy, have vision changes or have ringing in your ears.

As with any medicine, there is a very small chance of a vaccine causing a severe allergic reaction, other serious injury or death.

Other risks include:

• **Myocarditis and pericarditis.** In a few rare cases, people have developed inflammation of the heart muscle, called myocarditis, or inflammation of the lining outside the heart, called pericarditis, after receiving this vaccine. In people who developed these conditions, symptoms began within a few days of the vaccination. These symptoms are more common after the second dose of vaccine. Most of those who developed these conditions were male adolescents and adults 12 through 39 years of age. Males in this age group, and anyone under the age of 65, can choose to increase the time between the first and second mRNA vaccine dose to 8 weeks. This can lower the risk of these two conditions. The increased time between doses is not recommended if you have a weakened immune system or during time periods where there are high rates of local COVID-19 transmission. Waiting longer than 8 weeks will not help more. **Seek medical care right away if you have any of these symptoms:**
  – Chest pain.
  – Shortness of breath.
  – Heart palpitations, a fast-beating heart, feeling like your heart skips a beat, or feeling like your heart is fluttering.

**What if there is a serious problem?**

An allergic reaction could occur after you leave your vaccine appointment. **If you have signs of a severe allergic reaction, such as hives, swelling of the face or throat, difficulty breathing, a fast heartbeat, dizziness or weakness, call 911 or have someone drive you to the nearest hospital.**

For other symptoms that concern you, call your health care provider.

Adverse or allergic reactions should be reported to the Vaccine Adverse Event Reporting System (VAERS). Your health care provider will usually file this report or you can do it yourself. Visit the VAERS website at [www.vaers.hhs.gov](http://www.vaers.hhs.gov) or call 1-800-822-7967.

*VAERS is only for reporting reactions and VAERS staff does not give medical advice.*

**How can I learn more?**

• Ask your health care provider.

• Call your local or state health department.

• Contact the Centers for Disease Control and Prevention (CDC):
  – Call 1-800-232-4636 (1-800-CDC-INFO) or
  – Visit the CDC at [www.cdc.gov/vaccines](http://www.cdc.gov/vaccines)
V-SAFE is a voluntary vaccine safety data collection system. You can enroll in V-SAFE on your phone or other device. Mayo Clinic asks all COVID-19 vaccine recipients to take part. It uses text messaging and web surveys to provide personalized health check-ins after COVID-19 vaccination. V-SAFE allows you to report any side effects after COVID-19 vaccination to the CDC soon after they occur.

It also reminds you to get your second COVID-19 vaccine dose. Sign up for V-SAFE at https://vsafe.cdc.gov when you get your first dose of COVID-19 vaccine.