

COVID-19 vaccines available in the U.S.



COVID-19 vaccines will **greatly reduce your chances of getting COVID-19** and becoming severely ill, hospitalized or dying. We are still learning how long protection from these vaccines last.

| | Pfizer-BioNTech | Moderna | Johnson & Johnson (Janssen) |
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| How it works | Delivers genetic material (mRNA that tells the body how to produce the coronavirus spike protein. The immune system reacts to the spike protein and builds a defense against it. | Delivers genetic material (mRNA that tells the body how to produce the coronavirus spike protein. The immune system reacts to the spike protein and builds a defense against it. | Uses a harmless virus to teach your body how to make the coronavirus spike protein. Your immune system then reacts to the protein and builds a defense against it. |
| How many shots are needed? | Two shots , ideally 21 days apart | Two shots , ideally 28 days apart | One shot |
| When will I be considered fully vaccinated? | 14 days after your second shot | 14 days after your second shot | 14 days after you get the shot |
| Common side effects after vaccine | <p>Injection site reactions: pain, swelling, redness</p> <p>General side effects: tiredness, headache, muscle pain, chills, fever, nausea, joint pain, swollen lymph nodes</p> | <p>Injection site reactions: pain, swelling, redness</p> <p>General side effects: tiredness, headache, muscle pain, chills, fever, nausea, joint pain, swollen lymph nodes</p> | <p>Injection site reactions: pain, swelling, redness</p> <p>General side effects: tiredness, headache, muscle pain, nausea, fever</p> |
| What should I do if I feel sick after I get my shots? | Put a clean, cool, wet cloth on your arm where you got your shot to help with pain. Use or exercise your arm. If you have a fever, drink lots of fluids, dress lightly and rest. If you are still in pain after 24 hours, talk to your doctor about taking Tylenol or other medicine you can buy without a prescription. Sign up for v-safe , where you can use your smartphone to tell CDC about any side effects after getting a COVID-19 vaccine. In most cases, discomfort from fever or arm pain or swelling where you got the shot will not last more than a few days after a COVID-19 vaccine shot. Contact your doctor or healthcare provider if the redness or tenderness where you got the shot increases after 24 hours or if your side effects are worrying you or do not seem to be going away after a few days. | | |
| What are rare complications? | <p>Public health agencies are investigating these rare reports.</p> <p>Possible complications with getting the Pfizer-BioNTech or Moderna vaccines include heart inflammation called myocarditis and pericarditis. For the Johnson & Johnson vaccine, possible complications include blood clots with low platelets and a nervous system disorder called Guillain-Barré syndrome. If you have questions about these conditions, talk with your healthcare provider or call 877-VAX-IN-VA (877-829-4682). For additional information, please visit Safety of COVID-19 Vaccines (cdc.gov/coronavirus/2019-ncov/vaccines/safety/safety-of-vaccines.html).</p> | | |

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VACCINATE VIRGINIA

Learn more at Virginia Department of Health - Patient Education
[\(vdh.virginia.gov/covid-19-vaccine/patient-education/\)](https://vdh.virginia.gov/covid-19-vaccine/patient-education/)

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What does vaccine effectiveness mean



The current COVID-19 vaccines are very effective in preventing or reducing the severity of COVID-19. In clinical trials, the **Pfizer-BioNTech** COVID-19 vaccine was shown to be **95% effective** and the **Moderna** COVID-19 vaccine was shown to be **94% effective against the virus**.

Clinical Trials

During clinical trials, **thousands of volunteers** are divided into two groups. Half of the volunteers receive the **COVID-19 vaccine** and half do not (they receive a placebo.)

Volunteers



COVID-19 Vaccine



Got Symptoms: 1 in 20



Placebo Vaccine



Got Symptoms: 19 in 20



After the vaccines are given, the **volunteers are observed over time** to see if they develop COVID-19 symptoms. Researchers then compare the number of ill volunteers in the two groups.

In this chart, **95% fewer volunteers** who received the COVID-19 vaccine got COVID-19 symptoms compared to volunteers who did not get the vaccine. Therefore, the vaccine would be 95% effective.

How effective are other routine vaccines?

Many vaccines, including the COVID-19 vaccines, reduce the severity of illness even if you do get sick. It's important to remember that **no vaccine is 100% effective**. Influenza vaccine changes every year, but ranges from 19–60% effective. The measles vaccine is 97% effective.

What are we still learning?

After a vaccine is authorized for use, its safety and effectiveness **continue to be monitored**. Scientists and health officials are still learning how long COVID-19 vaccine protection lasts as well as if vaccinated people can still get COVID-19, and pass it on to others, but have no symptoms.



For more information about how vaccines are created, tested and distributed, visit vdh.virginia.gov/covid-19-vaccine or call 877-ASK-VDH3.



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