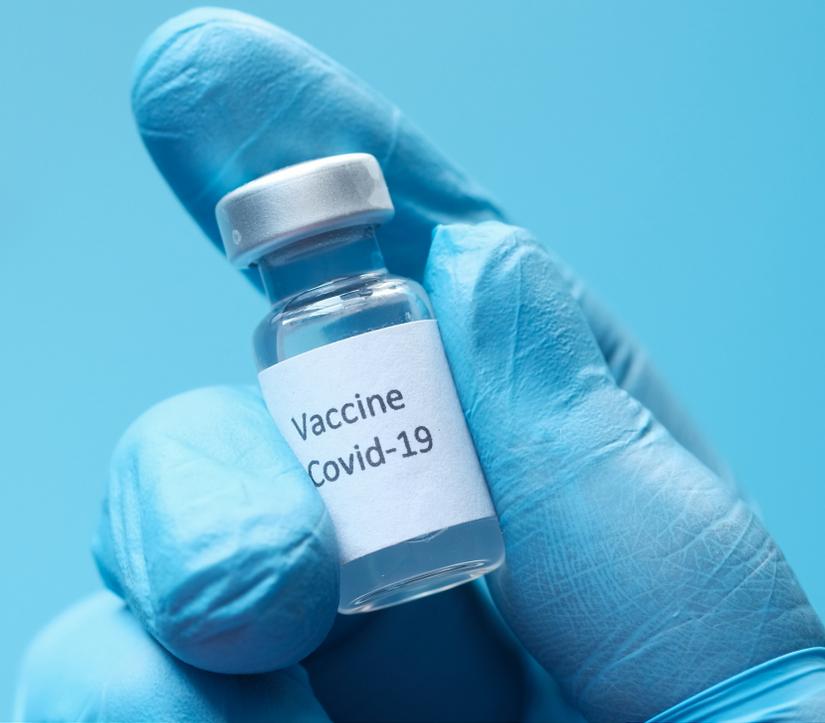




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How the COVID-19 Vaccines Work



Are you curious how the COVID-19 vaccinations work? Would you like to know more before receiving the vaccine yourself? There are currently three vaccines available which include Moderna, Pfizer, and Johnson & Johnson. Read on to learn the differences and all you need to know about the COVID-19 vaccines.

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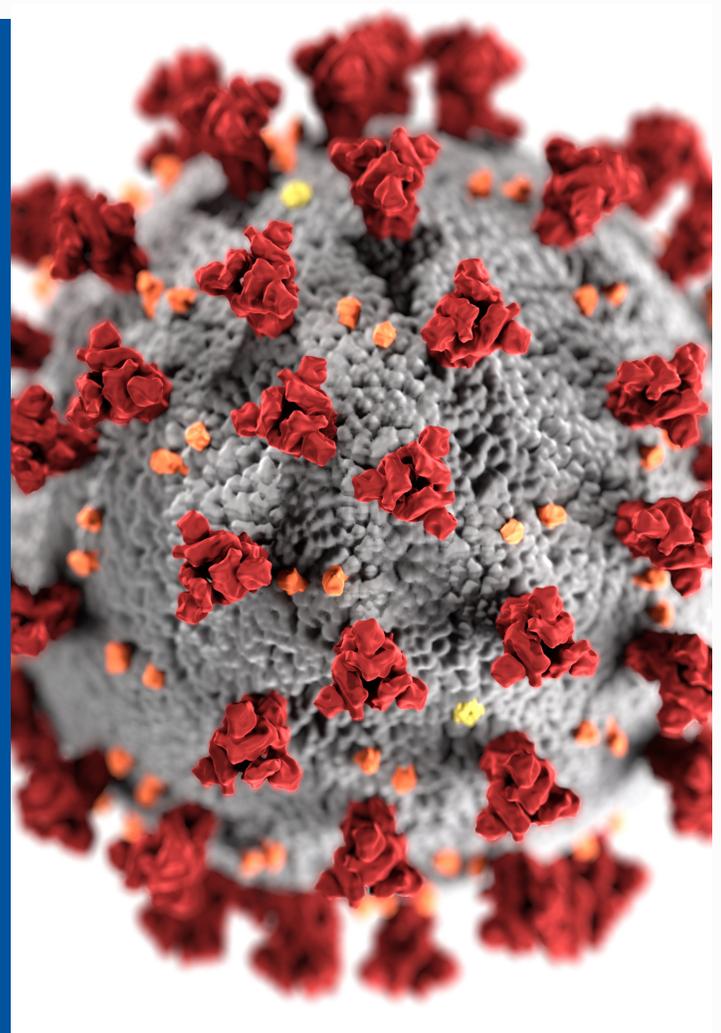
HOW DO THE VACCINES WORK?

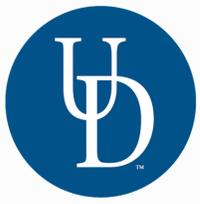
What do the vaccines do in the body?

The COVID-19 vaccines allow us to develop immunity to the virus that causes COVID-19 without us having to get the illness. Different vaccines work in different ways, however like all vaccines, the body is left with a supply of “memory cells” that will remember how to fight the infection in the future.

It typically takes a few weeks after vaccination for the body to produce these “memory cells”. Therefore, it is possible to be infected with the virus that causes COVID-19 just before or after vaccination and then get sick because the vaccination did not have enough time to provide protection.

After vaccination, the process of building immunity can cause symptoms, such as fever. This is completely normal and is a sign that the body is building immunity to the virus.





TYPES OF COVID-19 VACCINES

mRNA Vaccines

- mRNA vaccines contain material from the virus that causes COVID-19 that gives our cells instructions for how to make a harmless protein that is unique to the virus.
- After our cells make copies of this harmless protein, they destroy the genetic material from the vaccine.
- Our bodies recognize that this protein is not supposed to be there, and build “memory cells” that will remember how to fight the virus that causes COVID-19 if we are infected in the future.
- [Click Here](#) for a short YouTube video explaining more about mRNA vaccines

Vector Vaccines

- Vector vaccines contain a modified version of a different virus than the one that causes COVID-19.
- Inside the shell of the modified virus, is material from the virus that causes COVID-19. This is called “viral vector”.
- Once the viral vector is inside of our cells, the cells receive instructions to make a protein that is unique to the virus that causes COVID-19.
- Our cells then make copies of that protein.
- This prompts our bodies to make “memory cells” that will remember how to fight that virus if we are infected in the future.
- [Click Here](#) for a short YouTube video explaining more about viral vector vaccines.



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MODERNA COVID-19 VACCINE

Type of Vaccine: mRNA

Number of shots: 2 shots, 28 days apart

How given: shot in the muscle of the upper arm

Age limit: 18 years or older

Common side effects: pain, redness, or swelling in the arm where you got the shot, tiredness, muscle pain, headache, chills, fever, nausea.

These side effects usually start within a day or two of getting the vaccine. They may affect your ability to do daily activities, but should go away in a day or two.

How well it works: Based on evidence from clinical trials, the Moderna vaccine was 94.1% effective at preventing COVID-19 in people who received both doses who had no evidence of being previously infected. The vaccine appeared to have high efficacy in clinical trials among people of diverse age, sex, race, and ethnicity categories and among persons with underlying medical conditions.

100% effective in preventing death, hospitalization, and severe disease.

How long before protection kicks in: Some protection 10 to 14 days after the first dose. Full protection two weeks after the second dose.



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PFIZER COVID-19 VACCINE

Type of Vaccine: mRNA

Number of shots: 2 shots, 21 days apart

How given: shot in the muscle of the upper arm

Age limit: 16 years or older

Common side effects: pain, redness, or swelling in the arm where you got the shot, tiredness, muscle pain, headache, chills, fever, nausea.

How well it works: Based on evidence from clinical trials, the Pfizer vaccine was 95% effective at preventing COVID-19 in people without evidence of previous infection.

100% effective in preventing death and hospitalization.

99% effective in preventing severe illness.

How long before protection kicks in: Some protection 10 to 14 days after first dose. Full protection one week after the second dose.



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JOHNSON & JOHNSON COVID-19 VACCINE

Type of Vaccine: viral vector

Number of shots: 1 shot

How given: shot in the muscle of the upper arm

Age limit: 18 years or older

Common side effects: pain, redness, or swelling in the arm where you got the shot, tiredness, muscle pain, headache, chills, fever, nausea.

How well it works: 66.3% effective in clinical trials at preventing confirmed COVID-19 illness in people who had no evidence of prior infection 2 weeks after receiving the vaccine.

100% effective in preventing death and hospitalization.

85% effective in preventing severe disease.

Early evidence suggests J&J vaccine might provide protection against asymptomatic infection, which is when a person is infected by COVID-19 but does not get sick.

How long before protection kicks in: Some protection 14 days after the vaccine. Full protection in 28 days.



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Getting the vaccine is one of the many steps you can take to protect yourself and others from COVID-19. Protection from COVID-19 is critically important because for some people, COVID-19 can cause severe illness or death.

Vaccines work with your immune system so your body will be ready to fight off the virus if you are exposed. After you are fully vaccinated against COVID-19, you may be able to start doing some things that you stopped doing because of the pandemic. You should keep taking precautions in public places or when you are with unvaccinated people from more than one household.

Getting vaccinated and following CDC's recommendations to protect yourself and others will offer the best protection from COVID-19.

For more information, [Click Here](#) to view the CDC website.

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