

# COVID Vaccines

## Frequently Asked Questions

### What vaccines are available?

There are three vaccines currently available for use in the US: Pfizer/BioNTech, Moderna, and Johnson & Johnson (sometimes referred to as Janssen). Each of the vaccines trains your body's immune system to recognize and fight off a protein that forms the spiky part of the coronavirus. This protein is harmless by itself.

Name	Vaccine Type	Eligible Ages	# Doses
Pfizer	mRNA	12 years and older	Two doses, three weeks apart
Moderna	mRNA	18 years and older	Two doses, four weeks apart
Johnson & Johnson	Viral vector	18 years and older	One dose

Johns Hopkins Medicine has a helpful infographic: <https://www.hopkinsmedicine.org/health/conditions-and-diseases/coronavirus/coronavirus-vaccines-infographic>

### How do they work?

The coronavirus is covered with proteins that look like spikes, which help the virus to enter cells. The spike protein is harmless by itself. All of the vaccines teach your body how to make the spike protein; once your immune system sees it, it makes antibodies to get rid of it. When your immune system sees the coronavirus spikes again, it's already prepared to fight them off.

The mRNA vaccines use messenger RNA to deliver the instructions for making the spike protein. mRNA is fragile and must be kept at freezer temperatures to stay intact. The J&J vaccine uses a shell of an adenovirus to deliver DNA with the instructions; DNA is much more stable than mRNA so the J&J vaccine can be kept at regular refrigerator temperatures.

None of the vaccines contain the actual coronavirus. It's impossible to catch COVID or to spread it because of the vaccine.

### How were the vaccines developed so quickly?

The vaccines were based on several decades of research. In particular, the SARS outbreak in 2003 helped give a boost to coronavirus vaccine research.

Usually when a vaccine is developed, it goes through several phases of trials and then engineers work to make the production process as efficient as possible before actual production starts. In the case of the COVID vaccines, the different trial phases were run at the same time, and production began before the trials were finished.

## **What are the side effects?**

Common side effects are a sore arm, fever, chills, and fatigue. They usually go away after a day or two.

Use of the Johnson & Johnson vaccine was paused in mid-April after reports of six cases of a rare and severe blood clot. The CDC and FDA determined that the level of risk was very low and that the benefits of continued use of the J&J vaccine greatly outweighed any risks associated with it.

However, women younger than 50 years old especially should be aware of the rare risk of blood clots with low platelets after the J&J vaccine. Early diagnosis of the clots and appropriate treatment reduces the risk of long-term damage, so warnings have been added for people to seek medical attention if they have symptoms related to clotting, and the CDC has provided guidance to doctors on evaluating and treating clots in people who have recently received the vaccine.

## **Where can I get the vaccine?**

You can get the vaccine at grocery store pharmacies and drugstores, as well as doctors' offices, community health centers, the PeaceHealth community clinic, the Community Vaccination Center (CVC) located at Bellingham Technical College, and other popup locations.

People unable to leave their home can contact the Whatcom County Health Department at 360-778-6075 for assistance. Seniors who need help making or traveling to an appointment can call the Whatcom Council on Aging at 360-746-3450.

## **When can I get one?**

Many pharmacies and drugstores, plus the CVC and PeaceHealth, have evening and/or Saturday appointments.

## **Will I be contagious after the vaccine?**

No, none of the three vaccines contain the coronavirus, so it's impossible to catch or spread COVID because you've gotten the shot. The J&J vaccine does use an adenovirus, but it has been modified so that it can't replicate, and it degrades soon after the injection.

## **I've already had COVID; do I still need the vaccine?**

Reinfection after getting COVID can and does occur, and vaccines reduce the risk of reinfection. Now that vaccines are readily available, please get your vaccine even if you've already had COVID.

## **Do the vaccines use aborted fetal tissue?**

The Pfizer and Moderna vaccines do not use any fetal cells in their production. A fetal cell line was used to test the original concept. The anti-abortion Charlotte Lozier Institute considers these vaccines to be ethically uncontroversial.

The J&J vaccine does use cells from a fetal cell line dating back to a 1985 abortion in its production. The Catholic Church and the Southern Baptist Ethics & Religious Liberty Commission consider use of the vaccine to be morally acceptable.

The North Dakota Department of Health has a detailed response to this question:

[https://www.health.nd.gov/sites/www/files/documents/COVID%20Vaccine%20Page/COVID-19\\_Vaccine\\_Fetal\\_Cell\\_Handout.pdf](https://www.health.nd.gov/sites/www/files/documents/COVID%20Vaccine%20Page/COVID-19_Vaccine_Fetal_Cell_Handout.pdf)