



# Mecklenburg County Public Health COVID-19 Vaccine FAQ – General Public

## General Vaccine Questions

### Why are vaccines important?

It is always better to prevent a disease than to treat it after it occurs.

- Over the years, vaccines have prevented countless cases of disease and saved millions of lives. Diseases that used to be common in this country and around the world, including polio, measles, diphtheria, pertussis (whooping cough), rubella (German measles), mumps, tetanus, rotavirus and *Haemophilus influenzae* type b (Hib) can now be prevented by vaccination.
- Getting a vaccine also benefits your loved ones and people in your community by creating “herd immunity.” If enough people are vaccinated, the disease cannot spread as quickly.
- Stopping a pandemic requires all the tools we have available.

Source: [Vaccines and Immunizations | CDC](#)

### Where can I go for more information on vaccines, vaccination, and COVID-19?

- [COVID-19 Vaccine \(mecknc.gov\)](#)
- [Facts about COVID-19 Vaccines \(cdc.gov\)](#)
- [Understanding How COVID-19 Vaccines Work | CDC](#)
- [Frequently Asked Questions about COVID-19 Vaccination | CDC](#)
- [Keep Children Healthy during the COVID-19 Pandemic | CDC](#)
- [Ensuring the Safety of COVID-19 Vaccines in the United States | CDC](#)

## COVID-19 Vaccine Questions

### What is the COVID-19 vaccine and what does it do?

- The COVID-19 vaccine is provided to a person to give them protection from the coronavirus. COVID-19 vaccination helps protect you by creating an antibody response without having to experience sickness.
- Sometimes after vaccination, the process of building immunity can cause symptoms, such as soreness where you received the injection or fatigue. These symptoms are normal and are a sign that the body is building immunity.

Source: [Understanding How COVID-19 Vaccines Work | CDC](#)

### What are the different types of COVID-19 vaccines?

Multiple vaccines to protect people from COVID-19 are in specific phases of development or authorization. The chart below summarizes key facts for four companies that have developed the vaccines: **Pfizer, Moderna and Johnson and Johnson.**



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	Pfizer Vaccine – EUA 12/11/20	Moderna Vaccine – EUA 12/18/20	Johnson and Johnson Vaccine – EUA 02/26/21
<b>Vaccine Mechanism of Action (TYPE)</b>	mRNA mechanism	mRNA mechanism	Vector mechanism
<b>Efficacy</b>	95% effective against COVID-19	94.5% effective against COVID-19	66.9% effective against COVID-19
<b>Efficacy Against Severe COVID-19 Illness and Hospitalizations</b>	75.0% effective against severe COVID-19 illness 7 days or more after second dose  100% effective against hospitalizations from COVID-19 7 days or more after second dose	100% effective against severe COVID-19 illness starting 14 days after second dose  100% effective against hospitalizations from COVID-19 starting 14 days after second dose	85.4% effective against severe COVID-19 illness with an onset of at least 28 days after vaccination  100% effective against hospitalizations from COVID-19 with an onset at least 28 days after vaccination
<b># Participants</b>	43,000 Participants in Phase-3 trial	30,000 Participants in Phase-3 trial	40,000
<b>Level of Diversity</b>	42% of participants had diverse backgrounds	37% Diverse backgrounds	37.9% Diverse backgrounds
<b>Storage Temperature and shelf life</b>	Ultra-cold storage (-75 degrees Celsius, -103 degrees Fahrenheit). Lasts up to 5 days in refrigeration.	Storage temperature at -20 degrees C (-4 degrees F). Lasts up to 30 days in refrigeration.	Regular refrigeration (36-46 degrees F). Lasts up to 3 months in refrigeration.
<b>Dosing Schedule</b>	2-Dose schedule: 21 days apart	2-dose schedule: 28 days apart	Single dose

Sources:

- [1. NC DHHS—COVID Vaccine](#)
- [2. Moderna Provides Updates on the Clinical Development and Production of Its COVID-19 Vaccine Candidate | Moderna, Inc. \(modernatx.com\)](#)
- [3. Pfizer and BioNTech Conclude Phase 3 Study of COVID-19 Vaccine Candidate, Meeting All Primary Efficacy Endpoints | Pfizer](#)
- [4. AZD1222 vaccine met primary efficacy endpoint in preventing COVID-19 \(astrazeneca.com\)](#)
- [5. Vaccines and Related Biological Products Advisory Committee February 26, 2021 Meeting Briefing Document- Sponsor \(fda.gov\)](#)

### How do mRNA vaccines work? / How do the Pfizer and Moderna Vaccines work?

- mRNA vaccines teach our cells how to make a harmless piece of the “spike protein” for SARS-CoV-2.



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- After the protein piece is made, the cell breaks down the instructions (the mRNA) and gets rid of them.
- Cells display this piece of spike protein on their surface, and an immune response is triggered inside our bodies. This produces antibodies to protect us from getting infected if the SARS-CoV-2 virus enters our bodies.
- mRNA vaccines do not use the live virus that causes COVID-19. They **CANNOT** give someone COVID-19.
- mRNA vaccines **DO NOT** affect or interact with our DNA in any way

Source: [CDC--COVID Vaccine Communications Toolkit](#)

### How do vector vaccines work? / How does the Johnson and Johnson vaccine work?

This vaccine mechanism is used by the **Johnson and Johnson** vaccine and the **AstraZeneca** vaccine (still undergoing clinical trials process).

- Viral vector vaccines use a modified version of a different virus (the vector) that is harmless to humans to deliver important instructions to our cells. For COVID-19 viral vector vaccines, the vector (**not** the virus that causes COVID-19, but a different, harmless virus) will enter a cell in our body and then instruct the cell's machinery to produce **a harmless piece** of the virus that causes COVID-19. This piece is known as a spike protein and it is only found on the surface of the virus that causes COVID-19.
- After the viral vector delivers the instructions to create the spike protein, it is broken-down and disposed of.
- The cell then displays the spike protein on its surface, and our immune system recognizes it doesn't belong there. This triggers our immune system to begin producing antibodies and activating other immune cells to fight off what it thinks is an infection.
- Viral vectors cannot cause infection with COVID-19 or with the virus used as the vaccine vector.
- The genetic material delivered by the viral vector does **NOT** interact with or change a person's DNA in any way.

Source: [Understanding Viral Vector COVID-19 Vaccines | CDC](#)

### Do I need multiple doses of the COVID-19 vaccine?

The Pfizer vaccine and Moderna vaccine both require a second dose 21-28 days after the first shot. Johnson and Johnson is the only vaccination that requires a single dose.

**Pfizer:** 21 days **Moderna:** 28 days **Johnson and Johnson:** 1 dose

Source: [ACIP COVID-19 Vaccine](#)



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## What is the difference between the first and second dose of the Pfizer and Moderna vaccine?

- For the Pfizer and Moderna vaccines, the second dose is identical to the first dose.
- The initial shot is intended to prime your immune system. The second dose acts as a booster shot and stimulates an optimal antibody response.
- In the clinical trials, the efficacy of both vaccinations increased substantially when a second dose was administered, creating a much higher level of protection.
- Some people may have stronger side effects after their second dose. This is a sign that the vaccine is working. Your body now recognizes the harmless spike protein that is exhibited on the coronavirus and has triggered an appropriate immune response.

Source:

## What are the side effects of the COVID-19 vaccine?

Some people may have temporary reactions after being vaccinated, such as some pain and swelling at the injection site, tiredness or feeling off for a day or two.

These mRNA vaccines are expected to produce side effects after vaccination, especially after the 2nd dose.

Side effects may include:

- soreness at the injection site
- fatigue
- fever
- headache
- muscle aches

No significant safety concerns were identified in the clinical trials.

At least 8 weeks of safety data were gathered in the trials. It is unusual for side effects to appear more than 8 weeks after vaccination.

Sources:

1. [NC DHHS COVID-19: Vaccines](#)
2. [Pfizer Vax EUA Fact Sheet for Recipients-short.pdf](#)
3. [CDC-What Clinicians Should Know](#)
4. [Johnson and Johnson FDA Briefing](#)

## How do I know that the vaccine is safe?

**Scientists had a head start.** Although the vaccines were developed quickly, they were built upon years of work in developing vaccines for similar viruses.

**Testing was thorough and successful.** More than 70,000 people participated in clinical trials for two vaccines to see if they are safe and effective. To date, the vaccines are nearly 95% effective in preventing COVID-19 with no safety concerns.



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**There are no safety concerns for senior citizens.** Clinical trials ensured the vaccines meet safety standards and protect adults of different races, ethnicities, and ages, including adults over the age of 65, who mounted a strong immune response.

**There is no COVID-19 virus in the vaccine.** The vaccine imitates the infection so that our bodies think a germ like the virus is attacking. This creates the antibody defenses we need to fight off COVID-19 if and when the real germ attacks.

Source: [NC DHHS COVID-19: Vaccines](#)

### What are the benefits of getting a COVID-19 vaccine?

- The vaccine will help protect you from getting COVID-19.
- COVID-19 can have serious, life-threatening complications, and there is no way to know how COVID-19 will affect you.
- If you get sick, you could spread the disease to friends, family, and others around you.
- Getting the vaccine, in addition to wearing a mask, social distancing, and washing hands, is an important tool to stop the pandemic.

Source: [Benefits of Getting a COVID-19 Vaccine | CDC](#)

### How long will I be protected from COVID-19 after getting the vaccine?

Unfortunately, we won't know how long immunity lasts until we have a vaccine that is released and observed long-term. We will continue to update our information as new data is released.

Source: [COVID-19 Vaccination FAQ | CDC](#)

### Should I get the vaccine if I currently have COVID? / Should I get the vaccine if I have already had COVID?

For individuals that **currently have** COVID-19:

- Vaccination should be delayed until they recover from acute illness (if person had symptoms) **and** criteria have been met to discontinue isolation (as instructed by their healthcare provider or their local health department).

For individuals who **have recovered** from COVID-19:

- There is no minimum timeframe that a person who has recovered from COVID-19 should wait before getting the vaccine.
  - However, current evidence suggests reinfection is uncommon in the 90 days after initial *natural* infection. Therefore, people with documented acute infection (i.e. a positive COVID-19 test) in the last 90 days may defer vaccination until the end of this period, if desired.

Source: [mRNA Vaccine Clinical Considerations | CDC](#)



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### If I get the COVID-19 vaccine, do I still need to wear a face mask and socially distance?

**Stopping a pandemic requires using all the tools available.** Vaccines work with your immune system so your body will be ready to fight the virus if you are exposed.

Other steps, like covering your mouth and nose with a mask and staying at least 6 feet away from others, help reduce your chance of being exposed to the virus or spreading it to others. Together, COVID-19 vaccination and following CDC's recommendations [to protect yourself and others](#) will offer the best protection from COVID-19.

- Wear a mask when you are in public places or not able to social distance.
- Avoid close contact with people who are sick.
- If you are sick, limit contact with others as much as possible to avoid infecting them.
- Cover coughs and sneezes.
- Wash your hands often with soap and water. If soap and water are not available, use an alcohol-based hand rub.
- Avoid touching your eyes, nose and mouth.
- Clean and disinfect surfaces and objects that may be contaminated with viruses.

Source: [Frequently Asked Questions about COVID-19 Vaccination | CDC](#)

### If I receive both doses of the COVID-19 vaccine and come into contact with someone that has COVID-19, do I still need to quarantine?

**Vaccinated persons with an exposure to someone with suspected or confirmed COVID-19 are not required to quarantine if they meet all of the following criteria:**

- Are fully vaccinated (i.e.,  $\geq 2$  weeks following receipt of the second dose in a 2-dose series, or  $\geq 2$  weeks following receipt of one dose of a single-dose vaccine)
- Experience the COVID-19 exposure within 3 months following receipt of the last dose in the vaccine series
- Have remained asymptomatic since the current COVID-19 exposure

Persons who do not meet all 3 of the above criteria should continue to follow current [quarantine guidance](#) after exposure to someone with suspected or confirmed COVID-19.

Source: [Interim Clinical Considerations for Use of mRNA COVID-19 Vaccines | CDC](#)

### Who should NOT get a COVID-19 vaccine?

Severe allergic reaction (e.g., anaphylaxis) **to any component of the specific vaccine** the individual is receiving (**Pfizer-BioNTech or Moderna COVID-19 vaccine**) is a **contraindication to vaccination**

A severe allergic reaction to any vaccine or injectable therapy is a **precaution** to vaccination at this time.





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- Vaccine providers should observe patients after vaccination to monitor for the occurrence of immediate adverse reactions

Children ages 15 and under should not receive the Pfizer vaccine at this time. Individuals ages 17 and under should not receive the Moderna vaccine this time.

More information to come as additional vaccines are approved.

Source: [Pfizer-BioNTech COVID-19 Vaccine EUA Fact Sheet for Recipients and Caregivers \(fda.gov\)](https://www.fda.gov/oc/oc-2020-0101-pfizer-biontech-covid-19-vaccine-eua-fact-sheet-for-recipients-and-caregivers)  
[Moderna COVID-19 Vaccine EUA Fact Sheet for Healthcare Providers \(fda.gov\)](https://www.fda.gov/oc/oc-2020-0101-moderna-covid-19-vaccine-eua-fact-sheet-for-healthcare-providers)

## If I have allergies, can I still get the COVID-19 Vaccine?

Most people with allergies can still get the COVID-19 vaccine.

The Centers for Disease Control (CDC) has issued guidelines that people who have ever had a severe allergic reaction, known as anaphylaxis, **to any ingredient in a COVID-19 vaccine** should not get it, and to consult their doctor about getting the vaccine. This includes allergic reactions to PEG and polysorbate. Polysorbate is not an ingredient in either mRNA COVID-19 vaccine but is closely related to PEG, which is in the vaccines. People who are allergic to PEG or polysorbate should not get an mRNA COVID-19 vaccine.

Individuals with severe allergic reaction (e.g. anaphylaxis) to another vaccine or injectable medication may wish to consult with their medical provider; this is not an absolute contraindication to get the vaccine. In other words, most people with allergies can still get the vaccine.

Source: [COVID-19 Vaccines and Severe Allergic Reactions | CDC](https://www.cdc.gov/media/releases/2020/s1119-covid-19-vaccines-allergies.html)

## Is the vaccine effective against the new strains and variants of COVID-19?

Information about the characteristics of SARS-CoV-2 (the virus that causes the COVID-19 disease) variants is rapidly emerging. Scientists are working to learn more about how easily these variants may spread, whether they could cause more severe illness, and whether currently authorized vaccines will protect people against them.

Viruses constantly change through mutation, and new variants of a virus are expected to occur over time. Sometimes new variants emerge and disappear. Other times, new variants emerge and persist. Multiple variants of the virus that causes COVID-19 have been documented globally during this pandemic. The variants are given letter and number combinations that indicate their genetic lineage and differences in the physical characteristics of the virus. They are more commonly named after the countries in which they were first discovered in.

- **B.1.1.7** - “The U.K Variant”
- **B.1.351** - “The South African Variant”
- **P.1** - “The Brazilian Variant”



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These three variants, described by the U.S Centers for Disease Control and Prevention (CDC) as “variants of concern,” have spread globally and have all been reported in the US. Currently, there are fewer than 100 cases belonging to these variants in North Carolina.

These variants seem to spread more easily and quickly than other variants, which may lead to more cases of COVID-19. An increase in the number of cases will put more strain on health care resources, lead to more hospitalizations, and potentially more deaths.

**So far, studies suggest that antibodies generated through vaccination for COVID-19 recognize these variants and are effective against them.** This is being closely investigated and more studies are underway.

Source: [About Variants of the Virus that Causes COVID-19 | CDC](#)  
[Coronavirus \(COVID-19\) Update: FDA Issues Policies to Guide Medical Product Developers Addressing Virus Variants | FDA](#)