# COVID-19 VACCINE FAQs



This is a detailed list of questions curated to give providers updated information and help with conversations with patients. Key authors are Jill Amsbury, DO of CentraCare, the M Health Fairview team, and Jodie Dvorkin, MD, MPH of ICSI. This FAQ stems from a COVID-19 Vaccination working group ICSI began in the fall of 2020, comprised of healthcare leaders across Minnesota for sharing practices related to COVID-19 vaccinations. The working group includes healthcare delivery systems, health plans, county and state agencies and others.

## What vaccines are available?

Currently, two mRNA vaccines are authorized and recommended to prevent COVID-19:

- Pfizer-BioNTech vaccine
- Moderna vaccine

These vaccines have genetic material called mRNA or "messenger RNA" that is taken from the virus. Once injected, this material tricks our bodies into producing a spike protein unique to the virus. When our immune systems detect this protein, they then create cells that recognize and destroy it. These immune system cells remain in our bodies for long periods, giving us protection against the virus. **The mRNA vaccines do not alter your genes, nor can they give you COVID-19.**

As of December 28, 2020, large-scale (Phase 3) clinical trials are in progress or being planned for three additional COVID-19 vaccines in the United States:

- AstraZeneca's vaccine
    - This two-dose vaccine is a weakened adenovirus-based vaccine. Researchers genetically altered a weakened version of a common cold virus (adenovirus) that causes infections in chimpanzees so it carried a gene for the COVID-19 spike protein; this will train a person's immune system to recognize the real coronavirus. This vaccine has been approved for emergency use in the United Kingdom.
- Janssen's vaccine
    - This one dose vaccine also used adenovirus-based vaccine similar to AstraZeneca. Phase 3 of this trial was paused October 12, 2020, due to a serious medical event in a study participant, but the trial was resumed October 23, 2020. Based on the information gathered to date and the input of independent experts, the company has found no evidence that the vaccine candidate caused the event.
- Novavax's vaccine
    - This two-dose vaccine is made from a stabilized form of the coronavirus spike protein using the company's recombinant protein nanoparticle technology. The purified protein antigens in the vaccine cannot replicate and cannot cause COVID-19. The vaccine also contains a proprietary adjuvant, MatrixM™. Adjuvants are additives that enhance desired immune system responses to vaccine.

**Sources**
CDC
Vaccine Comparison
AstraZeneca Efficacy
AstraZeneca UK
Janssen
Janssen Trial Resumes
Janssen Vaccine Production
Novavax

*Last Updated: January 18, 2021*

## Isn't it better to get natural immunity from the disease?

Both this disease and the vaccine are new. We don't know how long protections lasts for those who get infected or those who are vaccinated. Current evidence suggests that getting the virus again (reinfection) is uncommon in the 90 days after the first infection with the virus that causes COVID-19. What we do know is that COVID-19 has caused serious illness and death to a lot of people. Vaccines are not a perfect fix but is a safer choice than the disease. We will still need to practice precautions like wearing a mask, social distancing, and handwashing until public health officials say otherwise.

**Source**
CDC

*Last Updated: January 18, 2021*

## What did the vaccines show efficacy for?
## What does efficacy mean for these clinical trials?

In summary, these trials showed that there was high efficacy in reducing the primary endpoint – development of symptomatic, confirmed COVID-19. Both also showed reduced risk of developing severe disease. We do not know if the vaccines prevent asymptomatic COVID-19. Therefore, we do not fully understand how the vaccines affect transmission. The fact that two different companies with different delivery mechanisms, different doses, different population groups produced the same results is exactly what scientists like to see.

The incidence of disease in the studies is less than 1%. There is reason to consider a volunteer bias in the vaccine as people who have volunteered may be more attentive to health, distancing, etc. Therefore, it is possible the population studied may be exposed to a lower inoculum of the virus. When the incidence increases to what is in the general population, we may see slightly different efficacy numbers.

- Pfizer-BioNTech: Evidence is based on one large, randomized, double-blind, placebo-controlled Phase II/III clinical trial that enrolled >43,000 participants (median age = 52 years, range = 16–91 years). Interim findings, with a median of two months of follow-up, indicate that the Pfizer-BioNTech COVID-19 vaccine was 95.0% effective (95% confidence interval = 90.3%–97.6%) in preventing symptomatic laboratory-confirmed COVID-19 in persons without evidence of previous SARS-CoV-2 infection. Consistent high efficacy (≥92%) was observed across age, sex, race, and ethnicity categories and among persons with underlying medical conditions as well as among participants with evidence of previous SARS-CoV-2 infection. Although numbers of observed hospitalizations and deaths were low, the available data were consistent with reduced risk for these severe outcomes among vaccinated persons compared with that among placebo recipients.
- Moderna: The body of evidence for the Moderna COVID-19 vaccine was primarily informed by one large, randomized, double-blind, placebo-controlled Phase III clinical trial that enrolled approximately 30,000 participants aged 18–95 years (median = 52 years). Interim findings, with a median of two months of follow-up, indicate that the Moderna COVID-19 vaccine efficacy after two doses was 94.1% (95% confidence interval = 89.3%–96.8%) in preventing symptomatic, laboratory-confirmed COVID-19 among persons without evidence of previous SARS-CoV-2 infection. High efficacy (≥86%) was observed across age, sex, race, and ethnicity categories and among persons with underlying medical conditions. Ten hospitalizations due to COVID-19 were documented; nine in the placebo group and one in the vaccine group. Preliminary data suggest that the Moderna COVID-19 vaccine might also provide some protection against asymptomatic SARS-CoV-2 infection.

**Sources**
ACIP Pfizer-BioNTech
ACIP Moderna

*Last Updated: January 18, 2021*

## What were the demographics of mRNA vaccine trial participants? What races/ethnicities were included?

For the Pfizer-BioNTech vaccine (37,586 participants in safety population):

- Race/Ethnicity
  - 83.1% White (31,230)
  - 28.0% Hispanic/Latinx (10,522)
  - 9.1% Black (3,416)
  - 4.3% Asian (1,606)
  - 0.5% American Indian or Alaska Native (198)
  - 0.2% Native Hawaiian or other Pacific Islander (76)
  - 2.3% Multiracial (853)
- Gender
  - 50.6% Male (19,001)
  - 49.4% Female (18,585)
- Age
  - Mean age 50.4 years

For the Moderna vaccine (30,350 participants in safety population):

- Race/Ethnicity
  - 79.2% White (24,023)
  - 20.5% Hispanic/Latinx (6,234)
  - 10.2% Black (3,090)
  - 4.6% Asian (1,385)
  - 0.8% American Indian or Alaska Native (230)
  - 0.2% Native Hawaiian or other Pacific Islander (66)
  - 2.1% Multiracial (634)
  - 2.1% Other (636)
- Gender
  - 52.7% Male (14,355)
  - 43.3% Female (13,175)
- Age
  - Mean age 51.4 years
  - 24.8% 65 years and older (7,520)

**Sources**
Pfizer Scientific Resources
Moderna COVE Study
FDA Pfizer-BioNTech
FDA Moderna

*Last Updated: January 18, 2021*

## If I receive the vaccine will I still need to mask and wear eye protection and social distance?

Because the vaccines do not offer 100% protection and we do not know if the vaccines prevent asymptomatic infection, PPE for healthcare workers and continued precautions for the general public are recommended. Everyone should wear face masks, wash their hands frequently, practice social distancing, and take other safety steps until more people have received the vaccine, the number of COVID-19 cases nationwide is no longer at pandemic levels, and we understand more about how long these vaccines will protect us.

**Sources**
CDC
NPR

*Last Updated: January 18, 2021*

## Will the vaccines work against new variants?

Genetic mutations have been noted in the COVID-19 virus, most recently with variants in the United Kingdom, South Africa and now the United States. At this time, these variants are more contagious and it is unclear if they cause increased mortality. There is some early data to suggest that the UK variant may be more deadly but more data is still needed. Scientists are rushing to study the efficacy of the vaccines with these new variants. There is no evidence that the mutations have caused it to mutate away from the vaccine, but continued studies are needed and already underway.

**Sources**
Nature
CDC - New Variants
BBC
UK Report on New Variant

*Last Updated: January 25, 2021*

## How many doses do I need of the Pfizer-BioNTech and Moderna vaccines?

The mRNA vaccines come in two doses. The first dose of the vaccine helps prepare your immune system and the second dose provides most of the immunity. Once you receive both doses of the vaccine, it will likely take several weeks for your body to develop immunity. Both doses are important to ensure full protection.

A study published in the *New England Journal of Medicine* in December found that protection from the Pzifer-BioNTech vaccine starts 12 days after the first shot and that it reaches 52% effectiveness a few weeks later. A week after the second vaccination, the effectiveness rate hits 95%. Moderna reported a protection rate of 51% two weeks after the first immunization and 94% two weeks after the second dose.

- People receiving the Pfizer-BioNTech vaccine will need a second dose 21 days after the first, while those who get the Moderna vaccine will need a booster 28 days later.
- Persons should not be scheduled to receive the second dose earlier than recommended (i.e., three weeks [Pfizer-BioNTech] or one month [Moderna]). However, second doses administered within a grace period of four days earlier than the recommended date for the second dose are still considered valid. Doses inadvertently administered earlier than the grace period should not be repeated.
- The second dose should be administered as close to the recommended interval as possible. However, if it is not feasible to adhere to the recommended interval, the second dose of Pfizer-BioNTech and Moderna COVID-19 vaccines may be scheduled for administration up to six weeks (42 days) after the first dose. There are currently limited data on efficacy of mRNA COVID-19 vaccines administered beyond this window. If the second dose is administered beyond these intervals, there is no need to restart the series

**Sources**
CDC Pfizer-BioNTech
CDC Moderna
ACIP Clinical Update
NPR
NEJM

*Last Updated: January 25, 2021*

## What about immunity over time – will boosters or yearly vaccination be needed?

We do not yet know about the need for or timing of re-vaccination. There will likely be fading immunity, but the timing of this is unknown. This is being studied.

*Last Updated: January 18, 2021*

## Are the mRNA vaccines interchangeable (i.e., can the doses come from different brands)?

According to the CDC, either of the currently authorized mRNA COVID-19 vaccines can be used when indicated; ACIP does not state a product preference. However, these mRNA COVID-19 vaccines are **not** interchangeable with each other or with other COVID-19 vaccine products. The safety and efficacy of a mixed-product series have not been evaluated. Both doses of the series should be completed with the same product. Every effort should be made to determine which vaccine product was received as the first dose, in order to ensure completion of the vaccine series with the same product.

In a recent January 21st update to its Interim Clinical Considerations, the CDC has recommended that in exceptional situations in which the first-dose vaccine product cannot be determined or is no longer available, any available mRNA COVID-19 vaccine may be administered at a minimum interval of 28 days between doses to complete the mRNA COVID-19 vaccination series. If two doses of different mRNA COVID-19 vaccine products are administered in these situations (or inadvertently), no additional doses of either product are recommended at this time.

It is worthwhile to note that Britain has also allowed mixing of products on rare occasions where the initial brand is not available or if the initial brand is not known.

**Sources**
CDC
Reuters Britain

*Last Updated: January 25, 2021*

## Are the mRNA vaccines safe?

Because it is not a live vaccine, you cannot get COVID-19 from the mRNA vaccines. Also, they do not enter the nucleus of the cell and therefore cannot alter your genes. During the trials, there were no reported serious side effects from these two vaccines. Since becoming available to the first priority group, there have been rare reports of allergic reactions with millions of doses given. The vaccines were given emergency use authorizations by the FDA, and their approval process also included public and independent review from members of the agency's Vaccines and Related Biological Products Advisory Committee. The clinical trial results were also thoroughly reviewed by the Advisory Committee on Immunizations Practices prior to the recommending the vaccines. Currently, adverse events are being tracked and all participants are asked to report side effects through the CDC V-safe smartphone tool.

**Source**
CDC
FDA
ACIP Pfizer-BioNTech
ACIP Moderna
V-safe

*Last Updated: January 18, 2021*

## Are the mRNA vaccines made with embryonic cells?

No, the COVID-19 vaccines do not contain any aborted fetal cells. However, Pfizer-BioNTech and Moderna did perform confirmation tests (to ensure the vaccines work) using fetal cell lines. Fetal cell lines are not the same as fetal tissue. Fetal cell lines are cells that grow in a laboratory. They descend from cells taken from elective abortions in the 1970s and 1980s. Those individual cells from the 1970s and 1980s have since multiplied into many new cells over the past four or five decades, creating fetal cell lines. Current fetal cell lines are thousands of generations removed from the original fetal tissue.

For the Pfizer-BioNTech and Moderna vaccines, no fetal cell lines were used to manufacture the vaccine, and they are not inside the injection you receive from your doctor/nurse. However, both companies used the fetal cell line HEK 293 in the confirmation phase to ensure the vaccines work. All HEK 293 cells are descended from tissue taken from a 1973 elective abortion that took place in the Netherlands.

**Sources**
Nebraska Med

*Last Updated: January 18, 2021*

## What about religious concerns regarding the COVID-19 vaccine?

It is important to respect that there are religious concerns around vaccines. While individuals must decide what is right for them and their faith, the following is information that may be helpful.

- The Vatican released a statement in mid-December saying that it is okay to get COVID-19 vaccine, even if research involved fetal tissue.
- The Jewish Orthodox Union and Rabbinical Council of America also issued guidance around that time, encouraging COVID-19 vaccination.
- An important consideration to some Jewish and Muslim individuals is whether the vaccines are halal as pork has been in gelatin in other vaccines. Spokespeople for Pfizer, Moderna and AstraZeneca have said that pork products are not part of their COVID-19 vaccines.

**Sources**
NPR
Vatican Statement
Jewish Orthodox Union & Rabbinical Council
AP News
British Islamic Medical Association

*Last Updated: January 18, 2020*

## What are the ingredients in the Pfizer-BioNTech COVID-19 vaccine?

The Pfizer-BioNTech COVID-19 Vaccine includes the following ingredients: mRNA, lipids ((4-hydroxybutyl)azanediyl)bis(hexane-6,1-diyl)bis(2-hexyldecanoate), 2 [(polyethylene glycol)-2000]-N,N-ditetradecylacetamide, 1,2-Distearoyl-sn-glycero-3- phosphocholine, and cholesterol), potassium chloride, monobasic potassium phosphate, sodium chloride, dibasic sodium phosphate dihydrate, and sucrose.

**Source**
FDA Fact Sheet Pfizer-BioNTech

*Last Updated: January 18, 2021*

## What are the ingredients in the Moderna COVID-19 vaccine?

The Moderna covid-19 vaccine contains the following ingredients: messenger ribonucleic acid (mRNA), lipids (SM-102, polyethylene glycol [PEG] 2000 dimyristoyl glycerol [DMG], cholesterol, and 1,2-distearoyl-sn-glycero-3-phosphocholine [DSPC]), tromethamine, tromethamine hydrochloride, acetic acid, sodium acetate, and sucrose.

**Source**
FDA Fact Sheet Moderna

*Last Updated: January 18, 2021*

## What side effects are expected with the Pfizer-BioNTech vaccine?

Sore arm, injection site soreness and/or redness, some experience systemic side effects/immune response like muscle aches, fatigue, low grade fever, some reported a headache. These symptoms are likely only to last 1-2 days, no more than one week and much less severe than actually getting the virus itself. In the Pfizer-BioNTech clinical trial, 77.4% reported at least one systemic reaction during the seven days after vaccination. The frequency of systemic adverse events was higher in the younger age group than the older age group (82.8% vs 70.6%). Within each age group, the frequency and severity of systemic adverse events was higher after dose two than dose one (with the exception of vomiting and diarrhea which were similar between doses and between vaccine and placebo).

It is important to note that the vaccine cannot give anyone the virus. Side effects are a sign the immune system is working.

**Source**
Pfizer-BioNTech Phase 3 Press Release
CDC Pfizer-BioNTech Adverse Reactions

*Last Updated: January 18, 2021*

## What side effects are expected with the Moderna vaccine?

Sore arm, injection site soreness and/or redness, some experience systemic side effects/immune response like muscle aches, fatigue, low grade fever, some reported a headache. These symptoms are likely to last 1-2 days, no more than one week and much less severe than actually getting the virus itself. It is important to note that the vaccine cannot give anyone the virus. Side effects are a sign the immune system is working.

**Source**
Moderna website

*Last Updated: January 18, 2021*

## To help with side effects, can I take acetaminophen or ibuprofen either before or after receiving vaccine?

Analgesics and antipyretics such as acetaminophen or ibuprofen are effective in managing post-vaccine side effects including injection-site pain, myalgias, and fever. However, the CDC does not recommend taking these medications pre-vaccine administration, because of possibility that they could blunt vaccine-induced antibody responses.

**Source**
NEJM Vaccine FAQ

*Last Updated: January 18, 2021*

## What about the reports of allergic reactions/anaphylaxis?

Despite there being no reports of anaphylaxis in clinical trials, there have been anaphylaxis reactions reported since widespread distribution – something that is expected when vaccination on a large scale.

During December 14-23, 2020, monitoring by the Vaccine Adverse Event Reporting System detected 21 cases of anaphylaxis after administration of a reported 1,893,360 first doses of the Pfizer-BioNTech Covid vaccine (11.1 cases per million doses); about 10 times the rate of anaphylaxis after the flu vaccine (1.3 cases per million). Seventeen of these cases occurred in persons with a documented history of allergies or allergic reactions, seven of whom had a history of anaphylaxis**.** 71% of the anaphylaxis occurred of

these occurred within 15 minutes. Of the remaining case reports that were determined not to be anaphylaxis, 86 were judged to be nonanaphylaxis allergic reactions, and 61 were considered nonallergic adverse events. Seven case reports were still under investigation.

Most recently, the CDC and FDA are investigating a higher-than-expected number of reactions to the Moderna vaccine at one clinic in California, causing doses from that vaccine batch to be paused.

One theory is that polyethylene glycol (PEG), an ingredient in both mRNA vaccines is causing these reactions, but this has not been proved. Persons who have had a severe allergic reaction to any vaccine or injectable therapy (intramuscular, intravenous, or subcutaneous) should not receive the Pfizer-BioNTech vaccine at this time.

Vaccine providers should observe patients after vaccination to monitor for the occurrence of immediate adverse reactions:  Persons with a history of anaphylaxis:  30 minutes.

All other persons: 15 mins. Appropriate medical treatment used to manage immediate allergic reactions must be immediately available in the event an acute anaphylactic reaction occurs following administration of the vaccine.

**Sources**
CDC Allergic Reactions
California Moderna

*Last Updated: January 18, 2021*

## What about the doctor in Miami that died shortly after getting his first dose of vaccine?

Dr. Michael died of severe thrombocytopenia. Investigators are trying to determine if there is a link with the vaccine. The MMR has been associated with thrombocytopenia in children, but it is rare, transient, and generally treatable. More information on this case is needed. But it is important to remember that this tragic death was the only one reported in millions of administered vaccine doses. If vaccine related, that is still exceedingly rare, and much rarer than the chances of death with COVID.

**Source**
New York Times

*Last Updated: January 18, 2021*

## Didn't these vaccines come out too quickly?

COVID-19 vaccines were tested in large clinical trials to make sure they meet safety standards. Many people participated in the trials from different ages, races, ethnicities, as well as those with different medical conditions. Reassure that COVID-19 vaccines will be continually monitored for safety after authorization and ACIP will take action to address any problems detected. Operation Warp Speed helped **expedite** the vaccine process, but all steps were still appropriately taken. The HHS and MDH resource below provides a summary of the process and the timeline.

**Sources**
HHS
MDH

*Last Updated: January 18, 2021*

## How did these mRNA vaccines come out so much more quickly than other vaccines?

The genetic sequence of the virus was published very early which provided the underlying code for the spike protein on the virus. It also closely resembled other coronaviruses that researchers and vaccine makers have studied which gave a base of knowledge for the development of these vaccines. mRNA vaccines in particular are faster to make as you don't have to wait for the virus to grow in large quantities and then chemically activate it. The US government then started a program to fund vaccine manufacturing so that, if found to be effective, the vaccine would be ready to be shipped immediately. Recruitment for subjects was also easier. We also had a large burden of disease in this country to get the necessary data to obtain results.

*Last Updated: January 18, 2021*

## Can pregnant or breastfeeding people receive the mRNA vaccines?

**Pregnancy**

Both ACIP and the American College of Obstetrics and Gynecology (ACOG) recommends pregnant women be offered counseling to make an informed decision regarding the vaccine.

- Observational data demonstrate that, while the chances for these severe health effects are low, pregnant people with COVID-19 have an increased risk of severe illness, including illness that results in ICU admission, mechanical ventilation, and death compared with non-pregnant women of reproductive age.
- Pregnant people with COVID-19 might be at increased risk of adverse pregnancy outcomes, such as preterm birth, compared with pregnant women without COVID-19.
- Limited data are currently available from animal developmental and reproductive toxicity studies.
- No safety concerns were demonstrated in rats that received Moderna COVID-19 vaccine before or during pregnancy; studies of the Pfizer-BioNTech vaccine are ongoing.

**Lactation**

There are no data on the safety of COVID-19 vaccines in lactating women or on the effects of mRNA vaccines on the breastfed infant or on milk production/excretion. mRNA vaccines are not thought to be a risk to the breastfeeding infant. According to ACOG, COVID-19 vaccines should be offered to lactating individuals similar to non-lactating individuals when they meet criteria for receipt of the vaccine based on prioritization groups outlined by the ACIP.

**Sources**

ACIP
ACOG

*Last Updated: January 18, 2021*

## Can kids receive the mRNA vaccines?

The Pfizer-BioNTech vaccine is approved for people 16 and older. Moderna is approved for people 18 years and older. Children ages 12-18 years have only been included on one vaccine study (Pfizer-BioNTech). Moderna has begun a prospective placebo-controlled trial for those 12-17-years old. No children less than 12 years have been included on any study thus far. Much more data is needed before vaccine administration to children.

**Sources**

CDC Pfizer-BioNTech
CDC Moderna
NPR
AP News

*Last Updated: January 18, 2021*

## Can I get the COVID-19 vaccine at the same time as another vaccine?

Given the lack of data on the safety and efficacy of mRNA COVID-19 vaccines administered simultaneously with other vaccines, the CDC recommends the vaccine series should routinely be administered alone, with a minimum interval of 14 days before or after administration with any other vaccine.

However, mRNA COVID-19 and other vaccines may be administered within a shorter period in situations where the benefits of vaccination are deemed to outweigh the potential unknown risks of vaccine coadministration (e.g., tetanus toxoid-containing vaccination as part of wound management, measles or hepatitis A vaccination during an outbreak) or to avoid barriers or delays to mRNA COVID-19 vaccination (e.g., in long-term care facility residents or healthcare personnel who received influenza or other vaccinations prior to/upon admission or onboarding). If mRNA COVID-19 vaccines are administered within 14 days of another vaccine, doses do not need to be repeated for either vaccine. This recommendation may be updated as more data are available.

**Source**
CDC
CDC Clinical Considerations

*Last Updated: January 25, 2021*

## I am young and healthy and at low risk for COVID-19. Why should I get the vaccine?

Even younger people can have severe complications from COVID-19, although their risk is not as high as older people or those who have serious health conditions. The more people who get the vaccine, the closer we can get to reaching herd immunity. Herd immunity is when most people are immune to a disease, meaning they can't get it, because they received the vaccine or have already had the disease and cannot get it again, at least for a while. Herd immunity can stop or slow the spread of disease.

**Source**
Johns Hopkins Medicine

*Last Updated: January 18, 2021*

## I had COVID-19, is it still recommended I receive the vaccine?

Yes, it is still recommended that you receive the vaccine. Experts do not yet know how long someone is protected from getting sick again after recovering from COVID-19.

Data from clinical trials indicate that mRNA COVID-19 vaccines can safely be given to persons with evidence of a prior SARS-CoV-2 infection. Vaccination should be offered to persons regardless of history of prior symptomatic or asymptomatic SARS-CoV-2 infection. Viral testing to assess for acute SARS-CoV-2 infection or serologic testing to assess for prior infection for the purposes of vaccine decision-making is **not** recommended.

Vaccination of persons with known current SARS-CoV-2 infection should be deferred until the person has recovered from the acute illness (if the person had symptoms) and criteria have been met for them to discontinue isolation. This recommendation applies to persons who develop SARS-CoV-2 infection before receiving any vaccine doses as well as those who develop SARS-CoV-2 infection after the first dose but before receipt of the second dose.

While there is no recommended minimum interval between infection and vaccination, current evidence suggests that the risk of SARS-CoV-2 reinfection is low in the months after initial infection but may increase with time due to waning immunity. It is uncommon for people who do get COVID-19 again to get

it within 90 days of when they recovered from their first infection. Thus, while vaccine supply remains limited, persons with recent documented acute SARS-CoV-2 infection may choose to temporarily delay vaccination, if desired, recognizing that the risk of reinfection, and therefore the need for vaccination, may increase with time following initial infection.

For vaccinated persons who subsequently develop COVID-19, prior receipt of an mRNA COVID-19 vaccine should not affect treatment decisions (including use of monoclonal antibodies, convalescent plasma, antiviral treatment, or corticosteroid administration) or timing of such treatments.

**Source**
CDC
CDC Clinical Considerations

*Last Updated: January 25, 2021*

## Should I get an antibody test to see if I have immunity BEFORE getting the COVID-19 vaccine?

No, you do not need to get an antibody test before getting the vaccine. Likewise, antibody testing is not needed after vaccination to assess of immunity.

However, anyone who feels they had COVID-19, and did not receive a positive diagnostic test, are welcome to get an antibody test. This can be scheduled through your primary care provider.

**Source**
ACIP

*Last Updated: January 18, 2021*

## Should I get an antibody test to see if I have immunity AFTER getting the COVID-19 vaccine?

There is no recommendation for getting antibody testing after the vaccine to prove efficacy. This may change in the future. It's important to note that not all available antibody tests assess for anti-spike antibody — the package insert for the antibody test should give this information.

**Source**
NEJM Vaccine FAQ

*Last Updated: January 18, 2021*

## If people have already had a positive antibody test should they get the vaccine?

Timing is yet to be determined regarding people with a history of positive antibody tests.

*Last Updated: January 18, 2021*

## If I receive the COVID-19 vaccine, would I still have to stay home in quarantine if one of my family members were to come down with COVID-19?

We are unsure. The vaccine is not 100% protective, so it could still be possible that you get Covid-19. If it is shortly after vaccination, it is also possible that you could develop symptoms and we may not know if the side effects are from the vaccine or getting the virus.

**Source**
CDC

*Last Updated: January 18, 2021*

## How long will it take to offer everyone a vaccine?

We do not know how long it will take for all the public to be offered the vaccine. On a national level, the Advisory Committee on Immunization Practices has recommendations for equitable allocation of the vaccine. Healthcare workers and long-term care residents were the first group recommended to receive the vaccine and recently the CDC has expanded recommendations to include adults older than 65. However, rollout efforts are currently limited by amount of vaccine states and healthcare organizations are receiving as well as vaccine logistics. The Minnesota Department of Health Vaccine Allocation Advisory Group has developed state guidelines. See resources below for federal and state resources on vaccine rollout.

**Sources**
ACIP
MDH
New York Times

*Last Updated: January 18, 2021*

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