COVID Vaccine FAQs

Sources: The answers to these frequently asked questions come from published research studies as well as explicit guidance from the U.S. Centers for Disease Control and prevention (CDC) along with other expert public health officials and organizations. You should always consult your doctor about personal medical questions or concerns.

1. **How long does the protection from the COVID-19 vaccine last?**

   A: Based on previous studies, the protection that COVID-19 vaccines provide is expected to last for several years at least. Because these vaccines have only been used in people for less than a year, however, studies are being done now to monitor that. That is why you may hear or read news stories every month that say something like "COVID vaccines are effective for at least six months. . ." These headlines can be confusing, though, and cause people to mistakenly believe that the vaccines are only effective for six months. Next month, expect to hear news reports that "COVID vaccines are effective for at least 8 months . . . .

   COVID will be around for years to come, and new mutations continue to occur that result in new variants. For example, the most common form of COVID in the US now is the so-called UK variant that didn't even exist when the current COVID vaccines were developed. Despite that, these vaccines are extremely effective against the UK COVID variant. There are more COVID cases in the world everyday now than ever before. And as long as COVID rages around the world, there will be new variants developing from now on. Someday, these variants may become resistant to the vaccine and we may need to get booster shots to protect us against these future variants. Vaccine makers and public health officials are planning ahead for this now.

2. **Why do I need to continue wearing a mask if I have received the full COVID-19 Vaccine?**

   A: If you are fully vaccinated, you may not need to wear a mask, especially when you are outdoors, or when you are in the presence of others who have also been fully vaccinated. That is one of many benefits of being vaccinated. At work, State and Federal regulations require us to wear masks if we are in the presence of others who have not been vaccinated, however.

   If you walked into a grocery store, and half of the people in there were not wearing a mask, it might be very confusing and even stressful for you or others. Who are these people who aren't wearing a mask? Are they vaccinated? Are they putting others at risk. This could create a lot of chaos, and it could give the wrong idea to people who have not been vaccinated that it is safe for themselves or others not to wear a mask, when in fact it may be very unsafe. For that reason, Government officials and many businesses have decided to continue to require everyone to wear a mask indoors because it is safer and easier for everyone.

3. **What are the ingredients of the COVID-19 Vaccine?**

   A: At present, there are 2 types of COVID vaccines:

   MRNA vaccines (Moderna, Pfizer) contain tiny pieces of RNA which messages which tell your cells to make a protein. This protein is not alive. And doesn't infect you. It is identical to a protein on the surface of the COVID-19 virus (the spike protein). The presence of this protein all by itself, causes your immune system to attack and destroy it, and to remember this protein in the future in case your immune system cells ever see this protein again (like on the outside of a COVID virus). It is a way of making you immune to COVID without ever being infected with COVID.

Vectored vaccines (Johnson and Johnson) are a somewhat different kind of vaccine that does contain a virus, but one that cannot make you sick or contagious. It isn't COVID. It is a harmless adenovirus. Inside the adenovirus is a message made out of DNA that tells your cells to make the spike protein that is identical to the spike protein on the COVID-19 virus. Once your body makes the spike protein, your immune system attacks it.

There are no blood cells, stem cells, or fetal cells in the vaccine. There are no preservatives.

4. If I have an underlying condition, can I get the COVID-19 Vaccine?

A: Yes. In general, if you have an underlying condition, it is even more important that you get the COVID vaccine, because underlying conditions make you more likely to either catch COVID or become sicker from it, or both. Talk to your doctor about this if you have any questions, and/or see what various organizations recommend about your particular condition. For example, most chronic (ongoing) medical conditions like diabetes, MS, arthritis, and other diseases have organizations like the American Diabetes Association, the MS Foundation, Arthritis Foundation, American Cancer Society that have specific guidance for you and your underlying condition. You can find them by searching on the internet the name of your condition and COVID.

5. I am 16 and don't want to take the vaccine because I am healthy and I don't want it to cause any long term side effects. Why should I consider taking the vaccine?

A: You are right to be concerned about your health and to be as knowledgeable as possible about anything you put into your body for the rest of your life. At your current age, you are in the highest risk group now for becoming infected with COVID as well as spreading COVID to someone else, who may be even more likely to die from COVID, so it isn't just you that benefits from you being vaccinated, its all the people you love and care about. COVID-19 will never be gone from this country until many people your age become vaccinated. This vaccine has been administered to hundreds of millions of people worldwide and serious side effects have been very very rare. Long-term side effects are even rarer. Unfortunately, long-term side effects of COVID infection are very common, even in people your age. You are far more likely to have long-term side effects from COVID infection including becoming disabled or having a much shorter life expectancy as a result, than you are from the COVID vaccine.

6. Does getting sick with COVID-19 provide better protection than the vaccine gives?

A: No. There is strong evidence that the COVID-19 vaccine provides better protection than the natural immunity that a person gets after being infected with COVID-19. The amount of antibodies produced after vaccination is much higher than than the amount of antibodies produced as a result of infection. In addition, the antibodies last longer in the blood stream after vaccination. As a result, even if you have been infected with COVID-19, public health experts strongly recommend that you get the vaccine as soon as you can.

7. I have heard of people getting the vaccine and then testing positive for COVID-19. How is that possible?

A: This can happen but it is rare. There have been some instances of people getting the vaccine and then testing positive for COVID-19. This was much more common a few months ago because between November 2020 and February 2021, millions of Americans became infected with COVID and had few or no symptoms and therefore never got tested. COVID tests can remain positive for months after infection even if people have no symptoms. What happened is that many people got infected with COVID and did not know it. Then they got the vaccine. Later the got tested for COVID at work or as a

result of going to a doctor's office, ER, or hospital for some other reason. As COVID cases in the US have dropped in the last 2 months, this has happened much less often.

There are very rare instances of someone being vaccinated for COVID and then becoming infected with COVID afterwards. The overall risk of this is less than 1 in 600. People who are very old, in poor health, and who have been in prolonged, repeated close contact with someone who has symptomatic COVID infection account for the overwhelming majority of such rare cases.

8. If I have tested positive for COVID-19 and have recovered, do I need to be vaccinated?

A: Yes. There is strong evidence that the COVID-19 vaccine provides better protection (immunity) against future COVID-19 infection than the natural immunity that a person gets after being infected with COVID-19. The amount of antibodies produced after vaccination is much higher than than the amount of antibodies produced as a result of infection. In addition, the antibodies last longer in the blood stream after vaccination. As a result, even if you have been infected with COVID-19, public health experts strongly recommend that you get the vaccine as soon as you can.

9. Is it necessary to wait to get blood work done after getting the COVID-19 vaccine?

A: No. It is not necessary to wait to get blood work done after getting the COVID-19 vaccine. It is important that you let your doctor know that you have been vaccinated as soon as you get vaccinated.

10. If I am currently taking antibiotics, can I get the vaccine?

A: Yes. There is no medication that makes it so you should not get the vaccine.

If you are sick, however, especially with an infection it is generally a good idea to wait to get any vaccine until you are feeling better. This has been a recommendation for 50 years or more. The reason is that if you are sick, and then you feel worse after you get a vaccine, it will be hard to know whether you are experiencing a side effect of the vaccine, or whether your underlying sickness is getting worse. It is best to keep things simple whenever possible. Get the vaccine when you are feeling well and you are less likely to feel bad after you get a vaccine, whether the vaccine is for COVID, tetanus, influenza, or anything else.

11. Does the COVID-19 vaccine cause antibody-dependent enhancements (ADE)?

A: NO. This has been very well studied for a long time and the answer is a definite NO.

Antibody-dependent enhancement is a real thing, but not for the COVID vaccine.

Antibody-dependent enhancement is a situation where a vaccine that turns out to not be very effective so it doesn't prevent infection, and then when infection occurs, having been vaccinated actually makes the infection worse.

Antibody-dependent enhancement has been seen with other (experimental) vaccines such as in previous failed attempts to develop an HIV vaccine, for example. When it occurs, this phenomenon is typically observed in animals used during an experiment, because no vaccine candidate can proceed to large scale clinical trials in humans if antibody-dependent enhancement occurs.

12. Does the COVID-19 vaccine contain blood products?

A: No. There are no blood products whatsoever in any of the vaccines used in the U.S. or anywhere else in the world.

13. We don't talk about "herd immunity" for protection against influenza or other common viral infections, so why is it discussed so much with COVID?

A: Herd immunity is when so many people in a group (community, state, country etc) become immune to an infection as a result of almost everyone being either vaccinated or previously infected. When so many people are immune, the germ has almost nobody to infect, and it simply dies out. This has happened many times since vaccines were developed.

We don't talk about herd immunity against influenza or common viral infections because herd immunity may be impossible to develop against these infections. (Herd immunity most likely did occur at the end of major influenza epidemics in 1918/1919, but the virus mutated and new variants took over). There are hundreds of strains of influenza today. Immunity to many common viral infections (that cause colds, for example) following infection, doesn't last that long. Most people have many colds in their lifetime as a result. Most common respiratory viruses do not have a vaccine yet.

Unfortunately, Herd immunity against COVID-19 may not b achieved in this country, since so many people who are not vaccinated are saying that they do not intend to get vaccinated in the future. This is risky for those individuals as well as for this country overall. Herd immunity does not have to absolute for the COVID situation to be markedly better: The spread of COVID will be dramatically reduced once the majority of Americans are vaccinated, even if COVID-19 doesn't go away completely. The possibility of never achieving herd immunity against COVID-19 is another important reason to get vaccinated yourself. At present, among the approximately 200 million unvaccinated Americans, there are simply not enough of them who are willing to get vaccinated in order to protect themselves or you. Therefore, you can't count on everyone else being vaccinated so that you can be safe. You have to do that for yourself and your family.

14. Does the vaccine protect against new variants?

A: The vaccines that are available now in the US have been shown to be highly effective against COVID-19 variants in the US, including the UK variant (B117) that is the most common COVID strain in the US. New variants develop all of the time, however. It is possible that someday a new variant will emerge that the current vaccines may not be effective against. For that reason, vaccine manufacturers are continuing to update their vaccines to protect against newer variants. That may mean a booster shot for us at some point in the future if it ever occurs that the vaccine becomes less effective against future variants, or in case the effectiveness of the vaccine starts to wear off after some period of time.

15. Should you get the COVID-19 vaccine if you have allergies?

A: In general, because of the risk of serious illness or death for you or a loved one as a result of COVID-19 infection, it is recommended that almost everyone get the COVID-19 vaccine. This includes people with allergies, including allergies to medications. The major exception is for people who allergic to the COVID-19 vaccine or any of its components. Talk to your doctor if you have ever had an allergy to a vaccine before receiving the COVID-19 vaccine, or any other vaccine.

16. If I am pregnant, can I get the COVID-19 Vaccine?

A: You can get the COVID-19 vaccine if you are pregnant. Covid infection during pregnancy dramatically increases a pregnant woman's risk of death, and can cause problems for the baby as well

such as premature birth. As a result, the CDC and major obstetrics organization recommend COVID vaccine prior to or during pregnancy, as well as for breast feeding mothers.

17. What do you know about the halt of the Johnson and Johnson Vaccine?

A: In response to 6 reported cases of unusual blood clotting in women under the age of 50, the U.S. Food and Drug Administration temporarily paused the distribution of the Johnson and Johnson COVID-19 vaccine, in order to study the issue and determine the risk of vaccination as well as how to treat this rare side effect. After 10 days, distribution of the vaccine was resumed, with a caution for women under age 50 to be aware of this rare side effect. This is a very effective vaccine, which only requires one shot. As a result, it may be best suited to situations where people have a hard time getting to a doctor or a pharmacy to get a shot, or for people who hate getting shots and only want to have one shot instead of two.

18. What are CVST and thrombocytopenia?

A: CVST stands for Cerebrovenous sinus thrombosis, which is a blood occurring in a particular vein inside the skull. This is an extremely rare condition that occurs when the blood clotting system stops functioning properly. This occurred in 6 women who received the COVID vaccine. It was accompanied by a condition called 'thrombocytopenia' which means a lack of thrombocytes in the blood. Thrombocytes are platelets, a blood clotting element. In other words, thrombocytopenia means a low platelet count. In the patients who experienced CVST following vaccination with the Johnson and Johnson COVID vaccine, the blood clotting system became 'activated' as a result of an unusual immune response (which likely had a hereditary component in the affected individuals). This caused the platelets to stick together and form clots. Many of the body's platelets were thus 'used up.' As a result, there were not very many floating around in the blood stream, so their platelet count was low. CSVT is very rare and very unusual. It is not the same as a DVT (a deep venous thrombosis, or blood clot in the large veins of the leg) which is common, but is not caused by any COVID vaccine.

19. What is the difference between the first and second dose of the COVID-19 mRNA vaccine?

A: The first and second doses of the COVID-19 mRNA vaccines are exactly the same. They are identical and contain the same amount of mRNA in each dose.

There is no difference in the two doses, but despite that, people may have somewhat different experiences after each dose. The common side effects of these vaccines are caused by your bod's immune system reacting to the vaccine. Your body recognizes the proteins that are produced as a result of these vaccines as 'foreign'. Your body's immune cells (various kinds of white blood cells) make antibodies and attack and destroy these proteins. The symptoms you may get, like fever or body aches are actually signs that your immune system is working well. (If you do not get these symptoms, though, don't worry. Your immune system is still working!) You are more likely to have these kind of symptoms after the second dose of vaccine because your immune system has already been turned on, and it attacks this protein much more effectively as a result, which is the whole point about getting the vaccine in the first place.

20. Does a vaccinated person present a risk to unvaccinated family members in the same house?

A: No.

21. Are COVID-19 vaccines made of fetal cells?

A: No.

22. Why are so many people pushing the COVID-19 vaccine when the flu vaccine doesn't get the same attention?

A: Because COVID-19 is more likely to kill you or someone you love if you become infected with it. Also COVID-19 is way more common than influenza, way more contagious, and way more lethal. COVID-19 has been the number one cause of death in the U.S. for more than a year.

Influenza vaccine is still very important, because influenza is a serious disease that kills tens of thousands of mostly older Americans every year. COVID kills hundreds of thousands (about 600,000 thousand Americans so far. Influenza is generally a seasonal disease, so vaccination against influenza is recommended just before the influenza season in the fall and winter. The best way to prevent deaths from influenza among older people is to have the people caring for them be vaccinated, since older people do not respond as well to the influenza vaccine compared to younger, healthier caregivers.

One of the benefits of mask wearing and social distancing to prevent COVID transmission has been a huge reduction in the number of influenza cases in the U.S. Influenza cases are expected to increase this year, however, now that fewer people are wearing masks. Therefore, influenza vaccination will be even more important this year compared to last year.

23. Can I get the COVID-19 vaccine if I am trying to get pregnant?

A: You can get the COVID-19 vaccine if you are trying to get pregnant. The American College of Obstetrics and Gynecology and the CDC recommend vaccination prior to pregnancy because getting COVID during pregnancy is very dangerous and may be fatal. COVID-19 vaccination does not affect fertility and does not cause birth defects. Thousands upon thousands of women have become pregnant after vaccination and thousands upon thousands of healthy babies have been born to women who have been vaccinated against COVID before or during pregnancy.

24. Will getting the COVID-19 vaccine affect my menstrual cycle?

A: No. The COVID-19 vaccine should not affect your menstrual cycle.

25. Why was I told to wait a month after getting the COVID-19 vaccine before getting a mammogram?

A: A mammogram is an X-ray of the breast and axilla ('armpit') to detect breast cancer before it causes symptoms. It looks for very subtle signs of cancer, including an enlarged lymph node under the arm (which could be a sign of cancer but is often caused by other benign things).

Neither COVID-19 nor COVID-19 vaccination causes breast cancer. Turning on the immune system (as a result of COVID-19 vaccination, for example) can cause the lymph nodes in the axilla ('armpit') to be enlarged temporarily.

Lymph nodes are factories that make and store white blood cells, which fight infection. Since COVID-19 vaccines (and other vaccines as well) turn on the immune system which results in the production of new white blood cells that live in lymph nodes), the lymph node may increase in size, enough to show up on an X-ray (mammogram). This can be confusing to the radiologist who is reviewing the X-ray. All they know is that there is an enlarged lymph node, and they won't know why if they don't know that you have been vaccinated. Even if they do know, they will probably recommend repeating the

mammogram in a month or so, so you will end up having to have two mammograms. This way, if you wait a month after your last vaccination, the lymph node will shrink, back to normal and it won't be enlarged on the X-ray. Your mammogram will likely be completely normal, and you won't have to have another mammogram for another year.

26. Who shouldn't get the vaccine?

A: Who shouldn't get the COVID-19 vaccine are people who have had a severe reaction to the vaccine. If you have had a serious reaction to other vaccines, you should talk to your doctor before having the COVID-19 vaccine.

In general, because one of the main benefits of vaccines are to prolong life, people who are dying from another reason and have a very limited life expectancy may feel that this or other vaccines are not for them.