

COVID-19 Vaccine FAQs for Kidney Patients and Caregivers

1. Does the COVID-19 vaccine affect the kidneys?

There is no evidence to suggest the COVID-19 vaccine will directly affect your kidneys. The COVID-19 vaccine trains your immune system to fight against any future COVID-19 infection. Vaccines train your immune system to fight disease.

2. Should rare kidney disease patients get the COVID-19 vaccine?

If you have chronic kidney disease at any stage or have received an organ transplant, you are at an increased risk for complications from the COVID-19 virus. As with any vaccine, you have the choice to receive the COVID-19 vaccine. We strongly encourage you to have a conversation with your doctor to decide if the vaccine is right for you and your condition.

3. Will the COVID-19 vaccine trigger relapse in Nephrotic Syndrome and other protein-spilling disease patients?

This is unknown. Just like other vaccines, the COVID-19 vaccine creates an immune response which has the possibility of triggering a relapse. As more protein-spilling kidney disease patients get vaccinated, data will reveal the effects of the vaccine. However, we encourage you to talk to your doctor to see if the benefit of the vaccine outweighs the potential for a relapse. While the causes of Nephrotic Syndrome relapses are sometimes hard to trace, it is recommended that after you get the COVID-19 vaccine, you monitor any symptoms and regularly check your urine protein with dipsticks for several days afterward. It is important for anyone, regardless of whether you get the COVID-19 vaccine or not, to maintain frequent handwashing, wear a mask, practice social distancing, and avoid large crowds. We strongly encourage you to talk to your doctor about whether getting the vaccine is right for you and your condition.

4. Can Nephrotic Syndrome patients who are immunocompromised (i.e., have weakened or suppressed immune systems) and other protein-spilling kidney disease patients generate enough antibodies from the COVID-19 vaccine?

Further studies are needed to determine the degree of protective immunity provided by the COVID-19 vaccine for kidney patients with weakened or suppressed immune systems. Some patients whose immune systems are weakened or compromised may have a decreased response to the vaccine based on a person's decreased adaptive immune cells. Talk to your doctor to see if the COVID-19 vaccine is right for you and how your medications may affect your body's response to the vaccine.

5. Do the immunosuppressant drugs many Nephrotic Syndrome and other protein-spilling disease patients take affect how the vaccine works?

Further studies are needed to determine the degree of protective immunity provided by the COVID-19 vaccine for kidney patients who take immunosuppressant drugs and who have weakened or suppressed immune systems. Talk to your doctor if the COVID-19 vaccine is right for you and how your medications may affect your body's response to the vaccine.

6. Can patients who have received Rituximab (Rituxan) get the vaccine?

Rituximab selectively reduces CD20+ B-cells in your body to suppress inflammatory disease activity. Generally, vaccines prompt your body to make more immune cells, like B-cells, to protect you from germs that cause disease and infection. We strongly suggest you speak to your doctor to see if a COVID-19 vaccine is right for you. [Here is an interesting article](#) with data that may indicate people who receive these treatments, such as rituximab, obinutuzumab, and

ofatumab, may be able get a COVID-19 vaccine without compromising control of their disease and get some protection from a vaccine.⁷

7. Are there different side effects from the COVID-19 vaccine for patients with FSGS, transplant patients, or patients with weakened or suppressed immune systems?

The common and expected side effects are assumed to be the same for patients who have FSGS, who have a transplant, and/or who have weakened or suppressed immune systems. However, talk to your doctor about your specific condition and how your body might respond to the COVID-19 vaccine.

8. Will the COVID-19 vaccine interfere with the treatments and medications I take for my kidney disease?

Generally, vaccines do not have interactions with medications. However, many kidney disease patients are taking immunosuppressants, which cause your body to have a weakened or suppressed immune system. It is best to discuss the COVID-19 vaccine and all of your medications, including over the counter and herbal supplements, with your doctor to determine what is best for you.

9. Were the COVID-19 vaccines tested in immunosuppressed patients (i.e., patients with weakened or suppressed immune systems)?

Of the two vaccines currently available, Pfizer-BioNTech and Moderna, neither studied their vaccine in immunosuppressed patients in their initial Phase 3 studies.

10. Should family members of kidney patients and transplant patients wait to get vaccinated?

People with underlying medical conditions, such as kidney disease, are likely to be given access to the vaccine prior to healthy individuals. ***Family members who get the vaccine will help protect the medically vulnerable people (people who have weakened or suppressed immune systems and transplant patients) in the household.*** We encourage you to have a discussion with your doctor about the COVID-19 vaccine and if it is right for you and/or your family.

11. Should transplant patients get a COVID-19 vaccine? If so, which one?

At this time, the mRNA vaccines are believed to be the safest for transplant populations, whose anti-rejection drugs can cause them to have weakened or suppressed immune systems. While neither of the mRNA vaccines were tested in transplant candidates or recipients in their initial Phase 3 trials, researchers are now studying how the immune system reacts to the vaccine in transplanted patients, including how long antibodies last after vaccination. You should talk to your doctor about getting the COVID-19 vaccine for further guidance.^{1,3}

12. Should people with End Stage Kidney Disease (ESKD)—i.e., whose kidneys have failed—get the vaccine?

Chronic kidney disease, regardless of stage, is considered a high-risk medical condition. People with this diagnosis will have priority access to getting the vaccine before healthy individuals of the same age. Please talk to your doctor about whether the COVID-19 vaccine is right for you.

13. Should patients on the transplant list get the vaccine before they receive a transplant? Will my transplant get postponed if I get the COVID-19 vaccine and then get called for my surgery?

In general, patients who are vaccinated pre-transplant, may have reduced protection from the vaccine post-transplant, particularly if therapies that reduce B-lymphocyte function (ex: rituximab) are utilized. However, the majority of transplant programs require transplant candidates to be fully immunized while awaiting transplant, especially since live virus vaccines such as MMR and Chicken Pox vaccine are contraindicated after transplant. You should discuss your options for getting a COVID-19 vaccine with your doctor.⁴

14. Is the COVID-19 vaccine safe for dialysis patients?

Data suggests that End-Stage Kidney Disease (ESKD) and dialysis patients who have contracted COVID-19 have 7 times higher hospitalization rates than patients without ESKD or dialysis treatment. The National Renal Administrators Association and the American Society of Nephrology have urged the CDC to prioritize the COVID-19 vaccination for patients with ESKD and dialysis treatment. The CDC has recommended that individuals 16-64 years of age with underlying medical conditions (such as ESKD and dialysis treatment) receive the COVID-19 vaccine in Phase 1c.^{2, 4}

15. Are any of the COVID-19 vaccines “live” vaccines?

The vaccines developed from Oxford-AstraZeneca and Johnson & Johnson are carried into the cell on a weakened, live adenovirus¹, while those from Pfizer-BioNTech and Moderna are not carried on a live virus and cannot cause infection of any kind.

16. What are the differences in how the COVID-19 vaccines work, compared to standard vaccines we have today?

The science of using mRNA to make a vaccine is the major difference between the COVID-19 vaccines which have been created by Pfizer-BioNTech and Moderna and other more common vaccines. Another difference is that mRNA is very fragile and quickly degrades once inside the body. This is why these vaccines must be so carefully preserved at very low temperatures and why you need two doses. Importantly, because the COVID-19 vaccine is new, we do not know how long protection from the vaccine will last. What we do know is that the COVID-19 vaccines are similar to other “standard” vaccines in that they both stimulate your immune system to fight against disease, viruses, and germs.

17. Will people have to get the COVID-19 vaccine every year, like the flu vaccine?

This is still unclear. More studies are needed to determine the frequency of the COVID-19 vaccine.

18. Will adult kidney patients get the same protection as healthy adults from the COVID-19 vaccine?

Further studies are needed to determine the degree of protective immunity provided by the COVID-19 vaccine for kidney patients with weakened or suppressed immune systems.

19. What are the expected side effects from a COVID-19 vaccine and when should I contact my doctor about side effects after vaccination?

Data shows most people do not have serious problems after being vaccinated. The common and expected side effects from a COVID-19 vaccine include sore arm, redness and warmth at and around the injection site, mild fatigue, low-grade fever, joint pain, chills, and headache. More recently, some people who have received the available mRNA vaccines have reported little to no side effects after receiving the vaccine. Please note, these expected side effects are the same as other common vaccines. The many thousands of patients who are receiving the vaccines now are being followed for side effects, so we will have even more information going forward about the incidence of reactions to the vaccine. However, if your symptoms worsen, you're advised to contact your doctor.

20. When will pediatric patients be able to get the COVID-19 vaccine?

Most recent projections indicate healthy children will likely get the vaccine in the final grouping. However, the Pfizer-BioNTech vaccine is authorized for ages 16 and older. Teenagers with a high-risk condition (such as kidney disease) may have the opportunity to get the vaccine sooner.⁴

21. Is the vaccine safe for children? Will the vaccine sponsors conduct clinical trials in children?

Both Pfizer-BioNTech and Moderna recently began COVID-19 vaccine trials for children as young as 12 years old. The data from these new trials will determine safety and the FDA will review the data. Keep in mind, if your child has a high-risk medical condition, when the vaccines are available for children, your child may be able to get it sooner than healthy children. Talk to your child's doctor about the COVID-19 vaccine at your next appointment.⁴

22. Were the COVID-19 vaccines properly tested before getting Emergency Use Authorization (EUA) in the United States?

The Food and Drug Association (FDA) carefully reviews all safety data from clinical trials and only authorizes emergency use when the expected benefits outweigh the potential risks. The COVID-19 vaccines that have received EUA were tested in large clinical trials to ensure they meet safety standards. Many thousands of people were recruited to participate to see how the vaccines offer protection to people of different ages, races, and ethnicities, as well as those with different medical conditions. Kidney disease patients were included in the both Pfizer-BioNTech and Moderna vaccines, but they did not include pediatric patients, nor did they include patients who were considered immunosuppressed (i.e. patients who were considered to have weakened or suppressed immune systems).²

23. What is an mRNA vaccine and how does it work in our body? How do we know an mRNA vaccine is safe when it is the first vaccine of its kind?

The Pfizer-BioNTech and Moderna vaccines are mRNA vaccines and teach your body to recognize the specific COVID-19 spike protein. Think of mRNA like a recipe or a set of instructions. When the mRNA vaccine is injected, your body follows the mRNA "recipe" to make harmless copies of the COVID-19 protein, which induces an immune response. Once your body uses the mRNA to make copies of the protein, the mRNA material is destroyed, and if you are later infected with the COVID-19 virus, your body will respond by building B-cells and T-cells to fight the virus. Please know the science behind these two vaccines is not new. An unprecedented amount of funding and attention to fight COVID-19 allowed teams of scientists from all over the world to work together to rapidly bring this vaccine to fruition in a safe, rigorous, and effective way.

24. If I had COVID-19, do I need to get the vaccine?

The current guidance is that everyone receives the COVID-19 vaccine, regardless of past COVID-19 infection or prior evidence of immunity. COVID-19 disease and the vaccines are new. It is unclear how long protection will last from those who get infected or those who get vaccinated. What we do know is that COVID-19 has caused serious illness and death in many people across the world. The CDC suggests that getting the COVID-19 vaccine is the safer choice than risking yourself or your loved ones getting infected.⁵

25. Do the COVID-19 vaccines affect fertility? Can the vaccines impact a pregnant person or an unborn fetus?

The CDC is recommending that people in the Phase 1a stage of vaccine rollout who are pregnant not be discouraged from receiving the vaccine due to their pregnancy. Pfizer-BioNTech and Moderna are currently monitoring people in their clinical trials who became pregnant after receiving their vaccines. There is limited data currently available on the safety of COVID-19 vaccines administered during pregnancy, however Moderna has reported no safety concerns in animal developmental and reproduction studies.⁶

26. Will the COVID-19 vaccine change your body's genetics?

No, the mRNA vaccines cannot change your DNA. The two COVID-19 vaccines approved for Emergency Use Authorization (EUA), use mRNA, or messenger RNA, to instruct your body to

build the coronavirus's specific protein. mRNA is very fragile and quickly degrades once inside the body. That is one of the reasons why these vaccines must be so carefully preserved at very low temperatures and why you need two doses. DNA is stored in the nucleus of your cells. mRNA vaccines are designed to do their work outside the nucleus of your cells; thus, they do not interact with your DNA.

27. Can I still infect other people with COVID-19 if I've received the vaccine?

It will take your body a several weeks to build immunity after receiving full dosing of a COVID-19 vaccine. That means it is possible for a person to get infected with the virus that causes COVID-19 just before or just after vaccination and get sick. Scientists believe that immunized individuals may still carry the virus in their noses for some time. The effects of any vaccine are not immediate. Therefore, even after getting a COVID-19 vaccine, you will still need to maintain CDC guidelines of frequent hand washing, wearing a mask, social distancing and avoiding large crowds to reduce your risk of becoming infected and spreading the virus. From a public health standpoint, the goal is for a sufficiently large percentage of the population to be vaccinated so that community spread of the virus will be significantly diminished.

28. Can I still get infected with COVID-19 after I get the vaccine?

Yes. It will take your body several weeks to build immunity after receiving the full dose of the COVID-19 vaccine. An effective vaccine does not replace your immune system, it helps it. By getting the COVID-19 vaccine, you are much less likely to get sick from the virus. Keep in mind, if you get the COVID-19 vaccine, you are not only protecting yourself from illness, but you are also protecting medically vulnerable people in your community. Also, after getting the vaccine, you will still need to maintain CDC guidelines of frequent hand washing, wearing a mask, social distancing, and avoiding large crowds to reduce your risk of becoming infected and spreading the virus.

29. How is the FDA monitoring the possible long-term and adverse (i.e. negative) event outcomes from people who have received the COVID-19 vaccine?

Long-term side effects have not been defined for the COVID-19 vaccine but will be available once long-term follow up is complete in healthy volunteers that were part of Phase 3 trials. Adverse event outcomes are closely monitored through different parts of the national vaccine monitoring system. You can [read more about the strict monitoring here](#).⁸

**This information was last reviewed on January 8th, 2021 by the NephCure COVID-19 Medical Advisory Committee. NephCure will provide updated information as it becomes available.*

References

¹ https://asts.org/advocacy/covid-19-resources/asts-covid-19-strike-force/transplant-capacity-in-the-covid-19-era#.X_NTothKgnl

² <https://www.cdc.gov/vaccines/covid-19/hcp/answering-questions.html>

³ https://www.myast.org/sites/default/files/2020%2012%2008%20COVID19%20VACCINE%20FAQS_FINAL.pdf

⁴ <https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/people-with-medical-conditions.html>

⁵ <https://www.cdc.gov/vaccines/covid-19/hcp/answering-questions.html>

⁶ <https://www.cdc.gov/coronavirus/2019-ncov/vaccines/recommendations/pregnancy.html>

⁷ <https://pubmed.ncbi.nlm.nih.gov/32671831>

⁸ <https://www.vaccines.gov/basics/safety>

