

DELCLOS VACCINE Q&A

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1. How was the vaccine developed so quickly? Don't clinical trials usually take years? Is it possible the development of the vaccine has been rushed?

Well actually, the development of the technology behind the vaccine has been going on for more than two decades. This is simply the first time that has been applied to specific disease. And the process of developing the vaccine took actually very little time because it's a synthetic vaccine, that is dependent on the the genome sequence of the virus so that can be known in a very short time--just a few days. After that then the typical studies of phase one, phase two, and phase three were conducted as they normally would be.

2. Is the information from the human trials enough to know if the vaccine is not going to negatively impact the greater population at a widespread scale?

Well, like any medication that is authorized by the FDA and then applied to the general population, it's important not to lower one's guard and continue to follow because the characteristics of the general population are not identical to those study subjects, who were a lot more carefully selected. However, all of the evidence to date suggests that this is a very safe vaccine.

3. Would it be more beneficial to wait for the Moderna vaccine? It looks to be more beneficial with fewer side effects right now.

Actually, as we are speaking, the Moderna vaccine is undergoing FDA review for emergency use authorization. It is likely, I'd say highly likely, that the profiles of the Moderna and the Pfizer vaccines, because both are mRNA vaccines, are going to be very, very similar. So, I would take the first vaccine that's offered to me of the two.

4. Can the vaccine cause infertility? We don't have any long-term data after the vaccine has been administered to look at that would tell us one way or another.

So there's currently no evidence that the COVID-19 vaccine causes infertility. There have been some reports in the late press that possibly a part of one of the proteins, a spike protein on the virus, is similar to a protein that could inhibit the placenta from growing, but it has such a tiny fragment that the likelihood that our immune system would recognize it as foreign is very low. In addition, even though infertility has not been studied specifically with the COVID vaccine, we do have a fair amount of experience from all of the cases worldwide that there have been a COVID infection, because we know that people can survive a COVID infection, develop some immunity for some time after that. And there have been no reports of infertility there. And finally, many, many different vaccines have been studied for the past several decades and there have been no reports that any vaccine developed in recent times causes fertility problems.

5. Is it safe to get the vaccine if I'm currently pregnant or planning to become pregnant? Were pregnant women included in clinical trials for the vaccine?

Pregnant women were not included in clinical trials for the vaccine, however pregnancy is not a contraindication to this vaccine.

6. Is it safe to get the vaccine if I'm currently breastfeeding?

Well, we'll have to look at the data to see how many women who received the vaccine are enrolled in the phase three clinical trial, who later became pregnant, or are currently breastfeeding. However breastfeeding is not a contraindication to the vaccine.

7. There have been a few people (on the news/in the workplace/family/friends) that want to wait a while and see how others react to the vaccine before they get it. How do you view this way of thinking?

I think it's important for each one of us to make that individual choice. We have to have a level of comfort when deciding whether or not to take the vaccine. I think it's perfectly understandable that some folks are ready to go and get it now and we encourage the vaccine here at UTHealth, but others may want to wait a little bit to see the general reaction the first people have received vaccine and that's totally understandable, as well. The important message is that we strongly encourage that everybody get vaccinated when offered the chance.

8. How can we as public health professionals provide a lay explanation as to why getting vaccinated is so important? What are your key points?

First of all we have to remember that the vaccines that have been developed and are now being distributed are incredibly effective, 95% efficacy in both for Moderna and the Pfizer vaccines in their phase three clinical trials. Number two, we shouldn't forget that we have to balance our decision of getting vaccinated against the toll that this disease has taken on society. Although some of you may be young and have a low likelihood of having a severe case of COVID, winding up in a hospital, there's still a risk of you transmitting it to others who are more vulnerable. So there are three reasons to get the vaccine: these are my personal reasons. Number one, I do it to protect myself. Number two, I do it to protect those around me, my family, my patients, my friends. And number three, I do it out of a sense of social responsibility to contribute what I can to achieving a level of herd immunity thanks to vaccination.

9. I'm hearing a lot about people not wanting to get the vaccine. As herd immunity requires a large majority of community members to participate in taking the vaccine, what is the benefit of the vaccine on the individual level?

On an individual level as we said, they showed 95% efficacy of preventing COVID infection and 100% efficacy in preventing severe COVID, the one that is associated with death and hospitalization.

10. What happens if we don't reach herd immunity through vaccination? Will the benefit of the vaccine decrease as the virus may change?

Well, certainly not reaching desired levels of herd immunity will result in a prolongation of this pandemic that's why it's so important for each of us to do our part to get to that level of herd immunity and it makes a lot more sense to me to get the herd immunity through vaccination, than through the risk of getting the disease.

11. How long do you think it will realistically take to reach herd immunity?

It will depend definitely on how quickly we can get vaccines out to the entire American population and offer it to them. Current estimates is that it should be available for the general population towards mid

to late spring. And so over the next several months in the summer, we hope to get to very high levels and approaching herd immunity, somewhere around-hopefully-in the summer, fall, maybe even early winter of 2021.

12. Is there anything else you want us to know?

I would just encourage you to think seriously about the vaccine--about getting vaccinated--you do need to have a level of comfort with it. Look at the data, we are students at a health sciences university, and we are trained to look at scientific evidence and feel comfortable with it when you make that decision, but I would strongly encourage everybody to get vaccinated when offered the opportunity here at UTHealth.