

Mayo Clinic Q & A- Dr. Gregory Poland - COVID-19 Update- 8 1...

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SUMMARY KEYWORDS

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SPEAKERS

Dr. Halena Gazelka, Dr. Gregory Poland, Narrator

- N** Narrator 00:01
Coming up on Mayo Clinic Q&A, as the Delta variant continues to spread, we're learning more about recommendations for a third dose of vaccine.
- D** Dr. Gregory Poland 00:10
In the context of immunocompromised individuals, an additional dose., in other words, it's defining that if you're immunocompromised, you need a three-dose series.
- N** Narrator 00:23
We'll also take a look at the vaccine hesitancy of women and families who believe that the vaccine will reduce the chances of pregnancy and affect the development of children.
- D** Dr. Gregory Poland 00:33
We have not seen any ill effect on fertility. Not one study has shown any ill effect on fertility. We have not seen any ill effect on the ability to get pregnant, the ability to carry a pregnancy through to term, or in the health of that baby.

- D** Dr. Halena Gazelka 00:55
Welcome, everyone to Mayo Clinic Q&A. I'm Dr. Halena Gazelka. We are recording this podcast and Monday, August the 16th, 2021. And we have a guest with us today, Dr. Greg Poland to give us our COVID updates. Welcome back, Greg.
- D** Dr. Gregory Poland 01:11
Thank you Halena. What a beautiful day we have in Rochester today.
- D** Dr. Halena Gazelka 01:14
It is a beautiful day. The weekend was lovely. But Greg, if memory serves me correctly, there's something historical about today. What would that be Greg?
- D** Dr. Gregory Poland 01:27
Well, today, I'm the birthday boy.
- D** Dr. Halena Gazelka 01:31
Happy Birthday to you. Now, that's all I'm going to sing, Greg. And I'm just going to say I wish you'd blow those out for me, but I know we don't blow out candles anymore. But it's kind of sad that I'm going to have to eat your cake alone in my office because we're zooming these interviews right now.
- D** Dr. Gregory Poland 01:48
Oh, you know, you can't eat your cake and have it too, so you should enjoy it.
- D** Dr. Halena Gazelka 01:53
And I think it's your lovely wife's birthday as well today.
- D** Dr. Gregory Poland 01:55
Yes. We have the same birthday though she, I should hasten to say, is younger than me.
- D** Dr. Halena Gazelka 02:01

Happy birthday to Jean. And yes, we'll get that in there that Jean is younger. Well, Greg, we have an awful lot of updates today for your birthday. So, let's hop right in. I think the biggest news that I've been hearing about COVID-19 vaccines is boosters.

D Dr. Gregory Poland 02:17
Yeah.

D Dr. Halena Gazelka 02:17
Fill us in.

D Dr. Gregory Poland 02:19
So, you know it's worth, because the media will use this terminology also, to sort of define terms. So, a booster dose is generally a dose above and beyond what's necessary. So, the dose that you're hearing about that was approved by the FDA and the CDC, this past week, would better be classified as an additional dose. In other words, for moderately to severely immunocompromised people, they need three doses. So, they've gotten two doses, they need an additional dose. If we got to the point where we would offer older people a third dose of the same vaccine, that would be a booster dose, a late booster dose. If instead, we gave a third dose, but used a variant specific vaccine, that would be called a variant booster dose. So, it gets a little bit complicated in the terminology.

D Dr. Halena Gazelka 03:32
Technical, and I know that we're seeing it in the news as a booster dose, but this is a third dose of the same vaccine. And my understanding, Greg is it's Moderna and Pfizer only, not the J&J. Is that correct?

D Dr. Gregory Poland 03:46
Exactly right. You're exactly right. And that's why they're calling it, in the context of immunocompromised individuals, an additional dose. In other words, it's defining that if you're immunocompromised, you need a three-dose series. If you're not immunocompromised, you get a two-dose series.

D Dr. Halena Gazelka 04:06
Greg, one of the next things I want us to do is to go on to define what is meant by

immunocompromised in that context. But I'm wondering if you can first tell us, since I asked the question, why do you not need a second J&J dose?

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Dr. Gregory Poland 04:21

The reason for it is we just don't have the data yet. It doesn't mean we won't eventually. But when you think about it in the U.S., we've given in order of magnitude more mRNA vaccines than J&J. So, we simply don't have the numbers and the length of time, as we do with mRNA vaccines for the immunocompromised. Even for the mRNA vaccines, despite these vaccines having been released last December, there is not yet a recommendation for a late booster in the elderly. Israel and Germany have done that. But the U.S., I think appropriately, does not yet see data that would push us that way.

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Dr. Halena Gazelka 05:13

So Greg, explain to us who in the United States is eligible for this third dose of Moderna or Pfizer.

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Dr. Gregory Poland 05:20

So, the term that's being used is moderately or severely immunocompromised. Now, those are a bit vague terms. And the first thing I would say is, for any of our listeners, talk to your health care provider. And they will help you determine if you fit into that category. But what would be good examples, people with solid organ transplant, people who are on immune modifying drugs, either because of autoimmune diseases like lupus or rheumatoid arthritis, people on active chemotherapy, that was depressing their immune system. Some drugs used for treatment of cancer don't suppress the immune system. So, you know, you need to talk with your healthcare provider about that. There are people that we're treating with high doses of steroids, for example, they would fit into that category. Similarly, with people that have certain diseases, aplastic anemia would be an example where the bone marrow is not operating properly. So, a long list that together comprises probably three to 5% or so of the U.S. population. So, if you suspect that you fit into that category, again, talk with your healthcare provider. They can help determine whether you fit into that category and would need an additional dose.

D

Dr. Halena Gazelka 06:57

I think that's a great point, Greg, that people shouldn't try to figure this out themselves.

D Dr. Gregory Poland 07:00
Yeah.

D Dr. Halena Gazelka 07:01
Simply make a call. We at Mayo are trying to do outreach to our patients who would qualify and invite them in for a third dose. But contacting one's provider is probably the best way to do that.

D Dr. Gregory Poland 07:11
Right, and you know, I would urge caution. We're certainly aware of news reports of people on their own who are not immunocompromised going out and getting a third dose. I would urge caution about that. We don't have a lot of data on that. It is possible to be over immunized. We've seen that with pneumococcal vaccine, diphtheria, tetanus, pertussis vaccines. It's also possible to train your immune system in a certain way, such that we might have to delay giving you a variant booster, if and when something like that became available. So, you know, we are in this unusual situation where we've got a group of people we can't convince to get the first dose, despite all the data. And then a group of people where we don't yet have the data that are going out and getting third, fourth and fifth doses. And we have no idea what the consequences of that might be yet.

D Dr. Halena Gazelka 08:19
Oh, boy, that's interesting. Greg, how long, so, this is a third dose and there's a timing for Moderna and Pfizer from first to second dose. What's the timing for a third dose after a second dose?

D Dr. Gregory Poland 08:32
Good point Halena, and I should have mentioned that. Very good point. So, we would give that waiting at least 28 days after the second dose. Okay. One question that does come up in that regard that I often get is, well, I got my two doses, but now I fit into this category, and it's been months. Do I have to start over? No, you don't.

D Dr. Halena Gazelka 08:57
Okay.

D Dr. Gregory Poland 08:57
It's a minimum of 28 days with no maximum.

D Dr. Halena Gazelka 09:02
That's a great point to make. And Greg, does the individual necessarily get a third dose of the same vaccine that they received for the first two?

D Dr. Gregory Poland 09:11
That's the recommendation. To do otherwise is what's being called a mix and match. There are some data on that showing that in some studies that might even be better, but we don't have a lot of data on doing that. And the legality of that is that the EUA calls for getting the same vaccine that you got in previous doses.

D Dr. Halena Gazelka 09:41
Greg, I'm going to move on to another topic now. We've had a number of questions. This comes up with our listeners, and it is certainly still present buzz out there. But the CDC has now come out and made some fairly strong recommendations, I think, for individuals who are pregnant, attempting to become pregnant etc. regarding vaccines. What can you tell us about that?

D Dr. Gregory Poland 10:03
Yeah, you know, this is a question of natural and obvious concern, a question that has come up in my own family. So, it is a serious question. It deserves a serious response. And here is where we are. We have not seen any ill effect on fertility. Not one study has shown any ill effect on fertility. We have not seen any ill effect on the ability to get pregnant, the ability to carry a pregnancy through to term, or in the health of that baby. Now, when we get to the health of that baby, you know, we have more limited data than we do people who have been immunized. Remember that for the majority of people who are not healthcare workers, for example, they may only in the last few months have gotten their vaccine dose and have not yet carried their pregnancy to term. But among the 10s to hundreds of 1000s of women where we do have data, there has been no increased risk in spontaneous miscarriage, no difficulty in carrying the baby to term, no increase in any congenital abnormality. The other side of the coin, the benefits are that we certainly do know that COVID infection in a pregnant woman can adversely affect the woman and the baby. So, preventing that is a good thing. And we know that the babies receive antibody,

protective antibody, from the mother through the placenta for at least six to eight weeks after that baby is born. And if the woman is breastfeeding, secretory antibody that's helpful to that baby as long as she is breastfeeding the baby. So, from the data we have, we see no ill effects and many beneficial effects. So, you're right that the CDC issued a statement basically strongly urging that vaccine be offered to women, regardless of where in their family planning cycle they might be, including pregnancy.

D

Dr. Halena Gazelka 11:32

That's a good way to say that. I was just going to ask you for a summary. Essentially, women can go get vaccinated in relation to wherever they are in pregnancy or planning for it.

D

Dr. Gregory Poland 12:39

And feel safe that the data are there, given where we are in the pandemic, and you know, it's maybe an opportune time to say, because, you know, you and I as physicians always want more data, right?

D

Dr. Halena Gazelka 12:53

That's right.

D

Dr. Gregory Poland 12:53

But we are in a position where, so to speak, the world is on fire with this pandemic, and you're trying to balance risks and benefits. The risks are obvious to anybody willing to look at the data, of getting COVID. The risks of getting the vaccine during pregnancy or prior to pregnancy, that observed risk is zero. The observed benefits of getting the vaccine are quantifiable and considerable for a pregnant woman.

D

Dr. Halena Gazelka 13:31

Excellent. Thank you for that very thorough explanation. That certainly is very concerning to many, many people. Greg, I'm switching topics again, a little bit. But another question that has come up quite frequently. And that is this question about the Delta variant. We have heard that the Delta variant is highly transmissible, perhaps more than original COVID or it is more than original COVID I think you're going to say.

D Dr. Gregory Poland 13:57
Yes.

D Dr. Halena Gazelka 13:57
How do we know it's Delta? And will the evidence of the infection and the symptoms that people suffer from differ than from the original?

D Dr. Gregory Poland 14:11
That's a great question actually. So, you're full of great questions today. Yes, the Delta variant is real. And the way we know whether it is Delta or not, is by sequencing it. So, you cannot sequence the genome of every single positive swab that's done. Rather, representative sampling is done in order to determine the change in the numbers and types of variants over time. So essentially, nearly all of the SARS CoV-2 virus circulating in the U.S. is Delta. There are smatterings of others including over 1300 cases of Lambda variant, which is another bad actor here. So, what do we see with Delta? Well, particularly in kids, I think the headline there is quick, sick, and fast. Where we used to have the time period between when you got exposed and infected, and when you develop symptoms being 6, 7, 8 plus days, because of the much higher levels of virus in the body with Delta, that time from getting infected to symptoms is three days. It literally just overwhelms the body's defenses because of the very rapid replication. In fact, viral titers or loads of the virus are about 1000 to 1200 times higher with Delta variant than what we saw with the original or even Alpha variant. In terms of symptoms Well, one is that people tend to get sick faster, they tend to have more severe symptoms because of the higher viral loads, little bit of controversy around that. We are definitely seeing illnesses in kids and younger adolescents that we rarely saw with the original variant, which is why the push to get kids that are eligible immunized and to mask those that are not yet eligible, as well as the adults around them. Now, for the vaccinated, it's a little different. You're tending to see, particularly with the mild cases of so-called breakthrough, much more mild symptoms, runny nose, cough, headache, maybe low-grade fever, in other words, and this is the point, symptoms that could easily fit with any upper respiratory viral infection. So, whereas before, we were saying, well, if you had a cough, sore throat, high fever, lost your sense of taste, or smell, that's COVID go in, and don't worry about the sniffles and a headache. We can't say that now. That could be somebody that, while they have minimal symptoms, could be actively infected and could transmit to other people.

D Dr. Halena Gazelka 17:36

I have a question, Greg, about contagion. In the beginning of this, we talked quite a lot about quarantining and for how long. And you talked about the rapidity of the Delta variant producing symptoms.

D Dr. Gregory Poland 17:50
Yes.

D Dr. Halena Gazelka 17:51
Is there a difference in the length of time that someone might be contagious with the virus as well? Or do we just assume that the entire time they're ill, that they're contagious?

D Dr. Gregory Poland 18:02
Yeah. So, this is interesting. And again, the data are new enough that any one study can differ from another study. And it is over time and more studies that we get a more solid and confident look at that. So, what do we know? One study showing that viral titers were the same in people vaccinated or unvaccinated who got infected. More commonly, studies coming out now are showing that the metric that roughly correlates with viral load called the CT value. In other words, how many times do you have to amplify a sample before you see the infection? So, the higher the number, the lower the viral load, the lower the CT value, the higher the viral load? So, we're seeing CT values in some studies, much higher in vaccinated, in other words, they have low viral titers, compared to low numbers in the vaccinated, indicating high viral titers. I know it's a little confusing.

D Dr. Halena Gazelka 19:18
So, in other words, people who are vaccinated will not necessarily have as many viruses?

D Dr. Gregory Poland 19:23
May not have as many and more importantly, they decrease their viral load very rapidly compared to the unvaccinated, and that's probably the more important finding.

D Dr. Halena Gazelka 19:37
Okay.

- D** Dr. Gregory Poland 19:37
So, if you're unvaccinated and get infected, you will, if you will, excrete virus for much longer than somebody who was vaccinated and had breakthrough infection.
- D** Dr. Halena Gazelka 19:53
So, is there any word on how long to consider people, you know, contagious, or how long the quarantine? Has that changed since the beginning? Because I don't hear people talk about that anymore.
- D** Dr. Gregory Poland 20:06
You know, this is one of those things, you know, I've often used the phrase, we're flying the airplane while we're building it. And that's true for public health policy too. So, you want to see not one or two studies, you want to see the preponderance of studies, repeatability in generalizability, demonstrating the same thing before you change public health policy. And so, there's always the science that's happening, and the public health policy lagging behind and catching up with that. And they have not yet changed that policy. So, we're operating under the same conditions.
- D** Dr. Halena Gazelka 20:46
Okay, that makes sense. Greg, I have seen that the former director of the CDC, Robert Redfield had discussed that this fall, there may be even some worse variant coming than Delta. What do you think of that conjecture?
- D** Dr. Gregory Poland 21:01
Yeah, you know, I've talked with Bob Redfield, and there's a number of us that are very concerned about that. Lambda variant would be the next most obvious one, probably acts more like the so-called South African or beta variant in terms of evasion of vaccine induced immunity. There's an expert group in England, and they have been very good in their predictions, stating that they believe we're on the verge of developing new variants that may substantially or entirely evade vaccine or convalescent, that is you were previously infected, immunity and this is a consequence.
- D** Dr. Halena Gazelka 21:49
That's frightening. Greg, I promised a co-worker today that I would ask you this question.

She wanted to know what Dr. Poland does about masking and what his recommendations are. And I immediately thought I think he's going to say that unless he's alone in his office, as we are right now zooming, or alone in his home with his wife, he's probably masking went out.

D

Dr. Gregory Poland 21:50

Yeah, large numbers of unvaccinated people. So, for the unvaccinated, they keep moving into more and more dangerous phases of the pandemic, as each new variant arises. For the elderly and immunocompromised, we put them at increased risk. For the rest of us, we may not have the same level of superior protection that we have enjoyed up to date with these new variants. So, it is a critical, global, and public health issue to get people not only vaccinated but masked. You know, even in a town like Rochester, I'm shocked at the number of people that are in indoor places unmasked. I mean, the cost to wear this and the inconvenience is incalculably low compared to the benefit of it. That's exactly right. And, you know, Mayo Clinic, and Mayo's policy has been right on target with this. The reason I have this sitting on my desk is the moment I walk out of my office that mask is on even though everybody in my laboratory group, without exception, has been fully immunized, I would never see a patient without a mask on and that patient mask. I would never go indoors in any setting without wearing a proper mask properly. And please, please listeners, this is not proper, below your nose. If it is below your nose or you have gapping around the nose or the cheek, you are not adequately protecting yourself. Cloth masks that do not have a metal piece that you can crimp around your nose are not adequate. So, a proper mask worn properly, I do not go into outdoor settings that are crowded without wearing a mask, and I generally avoid those. So, masking is an important adjunct to being immunized. And I do it for a number of reasons. Number one to protect other people. I might not know, because I'm fully immunized and healthy, I might not know if I was infected and could spread it to somebody else. Number two, I'm serving as a role model that masking is important for the protection of other people. And then lastly, I don't want to get even suffer the small chance of getting exposed. So, I wear a mask to protect me.

D

Dr. Halena Gazelka 25:03

Yeah, I think for a very brief time there, I stopped wearing a mask at times in public places. But as you said, Mayo has encouraged us to be wearing masks, on Mayo property or off. And I do feel it's my responsibility. I stopped at the grocery store this morning and went in. And I think I was one of maybe three customers in the store. So, certainly was distanced. But I wore my mask because I think it's the right thing to do. And I don't know whether I might be protecting you, or you're protecting me, but certainly covering your nares, where

the right virus lives is important.

D Dr. Gregory Poland 25:37

It is important and in fairness to what was true for all of us, the recommendation very briefly was that we didn't need to be masked if we were fully vaccinated. But that was before Delta variant, and people have to realize that the recommendations are going to change not because people don't know what they're doing. But because the virus and the science is changing, and we're keeping up with that. It's sort of like my wife, she deserves the credit for this one. She says, well, you know, the posted speed limit is 55. But if it's pouring rain in at night, you probably shouldn't go 55. If it's minus 20, and glare ice, you probably shouldn't be going 55. In other words, even those, though there is a recommendation, we vary it based on changing conditions. And the same is true for this virus.

D Dr. Halena Gazelka 26:34

Right? That makes perfect sense. Greg, where are we with immunization rates in the United States, and then in comparison with other countries in the world?

D Dr. Gregory Poland 26:43

You know, gratifyingly Halena, we are really picking it up. Almost a million doses a day, are being given now. So, I think, you know, especially in these areas where there's some areas down in the south, where nearly every family has been infected, and affected by COVID. And that changes, you tend to get the misinformation and disinformation stripped away in the face of a family member on a ventilator. So, it's unfortunate that it took those kind of case rates and hospitalization and death rates. But the message is getting through, and I'm gratified that that's increasing. Having said that, the U.S. is the second most vaccine hesitant country in a recent poll. Number one, Russia.

D Dr. Halena Gazelka 27:39

Interesting.

D Dr. Gregory Poland 27:41

So, what that tells us is that there's a group of people who distrust science and government at the same rate that Russians distrust their government. That's a surprising thing to me. It pretends that the whole world is involved in some kind of wild conspiracy.

Believe it or not, I have people come up to me, I'm pretty visible on this issue, and say, you know, that COVID doesn't even exist, right? It was just made up.

D Dr. Halena Gazelka 28:19
Wow.

D Dr. Gregory Poland 28:19
What do you even say to that, or people that say, I'm perfectly healthy? I don't need the vaccine, or I had COVID a year ago, I don't need the vaccine. And you realize these are folks making really bad health care decisions based on misinformation. And so, you know, I've said it before, I'm very gratified that Mayo gives us this avenue with which to give people the current science so that they A) Get their legitimate questions answered and B) Make good decisions for themselves and their family.

D Dr. Halena Gazelka 28:57
Yeah, I have to say, Greg, that that sort of surprises me that we're the second most vaccine hesitant. We also consider ourselves a land of opportunity. We consider ourselves a highly educated, you know, I choice everyone has choices here.

D Dr. Gregory Poland 29:12
Well, and you know, I like the idea, not in the military, not in the healthcare setting, and other places of choice, right. But I think what we are starting to see is movements toward you have to be accountable to your choice. And some of the proposals that are starting to float up nationally, are if you decide to not be immunized and you get infected, taxpayers should not pay for your health care. You pay for your health care. In other words, you have the choice of a decision, but you also have to be accountable for that decision. What's harder, is the heartbreak of obviously many people getting infected, who got infected from other people. And so, your decision doesn't just affect you, it affects other people. And I think that's an important moral issue to keep in mind

D Dr. Halena Gazelka 30:12
It is a very important issue. And just to clarify by choice, I did not mean choice on getting a vaccine. I meant that we have so many choices on where we get information and how we educate ourselves. And yet people are getting the wrong information and educating themselves the wrong way and making the wrong choice, and its' kind of astounding.

D Dr. Gregory Poland 30:32
Amazingly, in the context of a pandemic, we even have a choice as to which vaccine we get. I mean, this is surprising.

D Dr. Halena Gazelka 30:41
Yeah, it is. Well, lovely conversation today, Greg. Any last words of wisdom to share with us today?

D Dr. Gregory Poland 30:49
I'm going to use just three lines, quick, sick, and fast. And that's what we're seeing with Delta. It grieves me that we're seeing this in children. I was just checking what's happened over the last week with children. 1900 kids in the U.S. are hospitalized with COVID. Over 96,000 new cases were diagnosed last week in kids and adolescents too young to get the vaccine. So, this is why the rest of us need to be immunized. This is why we need to wear masks. And you know, now what we're seeing, and we've seen this horror show play out three previous times. Only now we have the most contagious variant we have seen, and kids are going back to school. And one by one we're seeing communities, counties, school districts having to end school, having to quarantine people, kids getting sick, hospitalized, or dying. Same thing happening to teachers, folks, we need to take this seriously. This is a serious health issue for all of us.

D Dr. Halena Gazelka 32:14
It really is heartbreaking, Greg, and I'm going to follow your three lines with just two of your favorite words, mask and vaccinate.

D Dr. Gregory Poland 32:21
Amen. Amen. Those are the two most important things, along with distancing that we could do. And they are effective. The data bear that out. You look at who's getting hospitalized, who's dying. It's the unvaccinated.

D Dr. Halena Gazelka 32:39
Thank you for being here with us again today, Greg, on your birthday of all days. this

- D** Dr. Gregory Poland 32:44
Well, this is important. And this is you know, the reason we're physicians is to try to protect people's health and to heal not hurt. And I'm going to do that to my last breath.
- D** Dr. Halena Gazelka 32:57
Happy birthday, Greg.
- D** Dr. Gregory Poland 32:58
Thank you so much.
- D** Dr. Halena Gazelka 32:59
I know that all of our listeners join me in wishing you and your lovely wife, Mrs. Poland a happy birthday today.
- D** Dr. Gregory Poland 33:06
Thank you.
- D** Dr. Halena Gazelka 33:09
Our thanks to Dr. Greg Poland, infectious disease expert, virologist, and vaccine expert, for being with us today to give us our COVID-19 updates. I hope that you learned something. I know that I did. We wish each of you a wonderful day.
- N** Narrator 33:23
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