

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

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SUMMARY KEYWORDS

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SPEAKERS

Dr. Halena Gazelka, Dr. Gregory Poland, Narrator

- N** Narrator 00:00
Coming up on Mayo Clinic Q&A,
- D** Dr. Gregory Poland 00:03
We now have about 60% of the cases are Delta variant. We've had outbreaks in five different summer camps for kids as kids are getting back together, and it spreads into the community.
- N** Narrator 00:16
Everyone is eager for a return to life as normal. But as restrictions ease and mandates are lifted, virus variants are of increasing concern.
- D** Dr. Gregory Poland 00:25
We've started now to see hospitalizations increasing. And mark our words, in just a few weeks. We'll start seeing deaths go up.

- D** Dr. Halena Gazelka 00:35
Welcome, everyone to Mayo Clinic Q&A. I'm Dr. Halena. Gazelka. Well, it's exciting. We're recording this podcast on Tuesday, July the 13th, 2021. And it is a momentous day. For the first time in 16 months, we are together recording in a studio. I with my guest, Dr. Greg Poland, virologist, infectious disease, and vaccine expert. Greg, welcome.
- D** Dr. Gregory Poland 00:58
Thank you. And probably we should explain. We're both vaccinated. We've been swapped. We're COVID negative. So, we're doing this in a very safe way.
- D** Dr. Halena Gazelka 01:06
That's right, we are following the rules. Tell us what's going on in the world of COVID.
- D** Dr. Gregory Poland 01:10
It is, you know, here in Rochester on Mayo's campus, things are very well controlled. When we walk out of this room we're in masks, we've been vaccinated, very high rates of immunization among our staff. We're keeping our patients safe. So, we're able to do this now and be in a small room with a limited number of people. And it's a joy to be together.
- D** Dr. Halena Gazelka 01:33
It is, it has been great. I've been to a couple of meetings now on campus, in buildings where we do not perform patient care. That's kind of our rule at Mayo right now, where we've had meetings together, same thing, distance but no masks, and it feels really good to see people again.
- D** Dr. Gregory Poland 01:47
Well, you know I hope that actually says something to the public, gee at Mayo Clinic the doctors are wearing masks, and the patients are wearing masks, and they're keeping each other safe. We've had no outbreaks attributed to receiving medical care here. And that's a real testament to doing things well.
- D** Dr. Halena Gazelka 02:07
That is great. Greg, tell us what's going on with the Delta variant. We hear so much about

that.

- D** Dr. Gregory Poland 02:12
Well Halena, this is a real concern. We now have about 60% of the cases are Delta variant. You and I spoke just a month, month and a half ago, it was two and a half, then 5%, then 30%. We're now at 60% of cases. So, this is the bad actor that we predicted it would be. And we're seeing a rise in cases. Our seven-day average per day is getting up to 19,000 cases a day in the US. We were down to 3000. So, we're starting to see just as we predicted a surge as people took masks off and as restrictions were lifted before we had achieved high rates of immunization.
- D** Dr. Halena Gazelka 03:02
So Greg, we have some colleagues in Florida who have shared with me that there are quite a few more hospitalizations now...
- D** Dr. Gregory Poland 03:07
Yes.
- D** Dr. Halena Gazelka 03:08
...than they had previously. I think Florida is one of those multiple hot states.
- D** Dr. Gregory Poland 03:11
It is. Yes.
- D** Dr. Halena Gazelka 03:12
And I don't know if that is a matter of lack of vaccinations in that state or more people close together. What is the reason?
- D** Dr. Gregory Poland 03:20
You're right, I had actually looked up what the hot spots are, and they are Florida, Louisiana, Arkansas, Missouri, and Nevada. And in fact, when you look at that they are accounting for the majority of cases in the US and tend to have the lowest immunization rates. So, it's no surprise that the two go together.

D Dr. Halena Gazelka 03:44
I guess that makes sense.

D Dr. Gregory Poland 03:45
Yeah.

D Dr. Halena Gazelka 03:45
So, some are saying that this really is almost a new pandemic that we're having with the Delta variant. Is that a way to look at it? And if so, what does that mean?

D Dr. Gregory Poland 03:54
Yeah, I think that's a way to catch attention. It's still the SARS COV-2 virus, but just like we have different strains of influenza, we have different strains of SARS-CoV-2. This one is worrisome, because the original virus, whatever that infectivity was, the Alpha variant or UK variant was about 50% more infectious. The Delta variant is 50% again more infectious. So, we're starting to see, we've had outbreaks in five different summer camps for kids as kids are getting back together, and it spreads into the community. We didn't see that with the original virus. So, I'm very concerned about school districts that are not going to have masking. I'm very concerned about communities where immunization rates are low. This is not a new virus. It's a variant, but it is a variant that's much more transmissible that is infecting kids. We've started now to see hospitalizations increasing. And mark our words, in just a few weeks, we'll start seeing deaths go up.

D Dr. Halena Gazelka 05:11
Greg, I want to go back to something that you said a couple of minutes ago about those hotspots.

D Dr. Gregory Poland 05:15
Yes.

D Dr. Halena Gazelka 05:16

And that those were also some of the areas where there were lesser rates of vaccinations.

D Dr. Gregory Poland 05:20
Yes.

D Dr. Halena Gazelka 05:21
So, are people who are vaccinated being asymptomatic carriers of the Delta variant? Or is that less common and it's just more common to be spread amongst individuals who are not vaccinated?

D Dr. Gregory Poland 05:34
Yeah. By far you're exactly right. That transmission from one person to another is occurring from somebody who has gotten infected and is not vaccinated. Now, when you ask is it possible that somebody who got vaccinated could get an asymptomatic infection and spread it? Yes, teeny, little chance if they were elderly, if they were immunocompromised, or had some other condition where they didn't respond well to the vaccine, that would be possible. But the numbers of those kinds of cases that we're seeing, extremely rare.

D Dr. Halena Gazelka 06:15
So, you mentioned also a little bit ago about kids going back to school. The CDC has said that vaccinated students should be able to go back maskless, but that kids who have not been vaccinated should likely be wearing masks.

D Dr. Gregory Poland 06:29
Yes.

D Dr. Halena Gazelka 06:29
Where are we now with vaccinating children younger than 12-years-old?

D Dr. Gregory Poland 06:34
So, right now, there is no indication or approval for immunization of children under 12.

Those studies have been done and are ongoing. We expect that those manufacturers will come forward with that data, requesting an emergency use authorization sometime this fall to late fall. So, I think we'll start seeing that probably once the school year has already started.

D Dr. Halena Gazelka 07:06
So, are the vaccine companies moving now to get the full authorization? No longer emergency use, correct?

D Dr. Gregory Poland 07:13
Yes. That is in progress. People wonder what's taking so long? Well, in many ways while frustrating, it's also reassuring. I have been part of this process, FDA will go through, by hand, every single record in each of those studies that had 40,000 or more participants. They will verify the data. They will redo all the statistical analysis. They will certify the labs that did the testing, and that's just a very laborious job to do. It takes a lot of time.

D Dr. Halena Gazelka 07:51
Sounds very laborious.

D Dr. Gregory Poland 07:52
Yeah, but we'll get there and I'm hoping sometime early this fall we will have a permanent license for these vaccines.

D Dr. Halena Gazelka 08:02
And then what about seeking authorization for booster shots? I think I saw an article about Pfizer.

D Dr. Gregory Poland 08:08
Yeah.

D Dr. Halena Gazelka 08:08
Working that way.

D

Dr. Gregory Poland 08:09

So, yesterday or the day before I think it was, Pfizer actually briefed the federal government, the committee responsible for this on their data in regards to a booster. They're doing what they should do. I know it riles people up, but what they're doing is being prepared. It doesn't mean there's a recommendation for a booster at this point. It doesn't mean that there'll be a different vaccine, for example, against the Delta variant. But they are being prepared, though they are being thoughtful so that if this gets out of control again, and I do think we're going to see another surge this fall with the relatively low immunization rates we have, they want to be prepared.

D

Dr. Halena Gazelka 08:58

You know, you were speaking a couple of minutes ago about how they FDA will go through the information about the testing and those who have been vaccinated under all the studies to see what kind of complications or side-effects, etc. I had read an article about vaccines being associated, potentially, I think it was the J&J vaccine, perhaps with Guillain-Barre syndrome. Tell us what in the world is Guillain-Barre syndrome? And is that a concern?

D

Dr. Gregory Poland 09:25

Yeah Halena, you're absolutely right. I believe that information was released last night. There have been about 100 known cases of Guillain-Barre in about 12 and a half million people who have received the J&J vaccine. So, that's a rate of about one per 125,000. That's about or maybe slightly higher than the background rate that we see. We even see Guillain-Barre in association with COVID infection. So, it's one of those things that, you know, that headline is going to frighten people. We don't know if it's associated yet because that rate is so low. So, more studies will be done, and they'll follow that. You asked about what Guillain-Barre is. It's an ascending paralysis. So, people might notice weakness or unusual sensations in their arms or legs, in worst cases, maybe loss of bowel and bladder control, in the very worst cases, the inability to breathe. That's very unusual, and for the most part, people recover completely from that. So, it's one of those things where you're looking at a risk of Guillain-Barre from infection with COVID that's higher than the risk of Guillain-Barre associated with the vaccine.

D

Dr. Halena Gazelka 10:59

Now, is it typically associated with viral infections?

- D** Dr. Gregory Poland 11:02
It is, for example, and famously, so influenza. That's the primary one, but there are other parasitic diseases too, that lead to Guillain-Barre.
- D** Dr. Halena Gazelka 11:12
Greg, we're now going to move on to a few listener questions.
- D** Dr. Gregory Poland 11:15
Oh, I love these.
- D** Dr. Halena Gazelka 11:15
We all collectively have collected quite a long list of them.
- D** Dr. Gregory Poland 11:18
We have.
- D** Dr. Halena Gazelka 11:18
We are not going to get to them all today. I will just warn you that we'll save some up for next time.
- D** Dr. Gregory Poland 11:22
We have great listeners, sharp listeners too.
- D** Dr. Halena Gazelka 11:24
We do, very sharp, they ask us very good questions. Our first listener is a retired nurse who is now helping to give COVID vaccinations.
- D** Dr. Gregory Poland 11:32
Great.

D

Dr. Halena Gazelka 11:32

And she has had many questions from adults who have been concerned about receiving the COVID vaccine out of fear that there are adverse events that perhaps are not being reported, or that are being erroneously reported. So, in other words, concern that as we move to vaccinating the younger children, such as the two- to 11-year-old age range, do we really know that this vaccine is safe? And that we're getting accurate reports when people talk about the adverse events?

D

Dr. Gregory Poland 12:02

You know, those are very fair questions, and they demand fair and honest answers. So, I appreciate the question. It's interesting that thus far, where we have seen side-effects, they've been in people in their 30s 40s and 50s. They haven't been in the people 18 down to age 12. So, we don't expect any increased risk of side-effects in the pediatric population.

D

Dr. Halena Gazelka 12:29

Is that because we haven't vaccinated enough of them?

D

Dr. Gregory Poland 12:32

Well, and that's a potential. So, a good critical observation. You know, we're talking about a few 1000, not hundreds of 1000s yet. So, that's one issue. The second issue is, particularly when we're facing a virus like the Delta variant, where we are seeing kids get infected, we are seeing kids get hospitalized and have complications, we're either going to make them immune by infection, or immunity due to vaccine. And we'd much rather do it by vaccine. I know people are confused about that. They think about the relative lack of any significant effect of COVID on kids a year ago with the original virus. That is not true, to the same extent with these variants. So, those studies are being done. It will be, I'm sure, recommended for children. And then we watch and accumulate more and more data. When you think about it, there's no way to know the answer about safety without using it. And so, what they do, and appropriately so, is they start with adults, and they work their way down. So, well over 300 million doses of COVID vaccines have been given in the US. We have a very good sense of the safety. So, as you move down to children, it's easier and easier to spot, are those same side-effects occurring. Are they more common or less common? I expect they're going to be less common, much less common.

D Dr. Halena Gazelka 14:19
Greg, how does the adverse event reporting system work? We're talking about immunizing millions of people.

D Dr. Gregory Poland 14:26
Yes.

D Dr. Halena Gazelka 14:26
So, how do the adverse events get reported back to say the FDA?

D Dr. Gregory Poland 14:32
Really good question, and we are fortunate in the US, I think every country in the world would say we have the most robust vaccine safety network, and it has multiple overlapping different safety aspects to it. You mentioned there's the vaccine adverse event reporting system. Anybody can go online "VAERS" and report any side-effect in anybody, for any reason. So, that's what's called a passive. So, for example, Halena, if you told me, I got a vaccine, and I had this side-effect, you could report it, I could report it. And the people sitting in the studio could report it.

D Dr. Halena Gazelka 15:21
What stops people from reporting inaccurately?

D Dr. Gregory Poland 15:25
And they do. They often do. So, when you hear about, you know, 30,000 VAERS reports, the reason this takes time, each of those are gone through. They go to the medical records, and I'll give you an example. There are people who reported side-effects to the vaccine that occurred before they got the vaccine, when they actually go into the medical record, and all kinds of permutations of that. So, that's a passive one. It's not a very specific, but it's highly sensitive. So, how do you nail it down even further? Well, they do what's called a rapid cycle analysis. So, every week, the Medicare database, so everybody aged 65 and older in the US, they go, and they look for any signal of any medical problem that's occurring in people that are vaccinated, that would be above what we saw, say two years ago. And then there are additional ways that they study this. Some of the very large health systems like Kaiser Permanente, for example, that has enrolled 10s of millions of

people, they go through every week electronically looking for any uptick in any kind of medical issue. This is how 100 cases out of 12 and a half million doses gets detected. You know, again I know it...

-  Dr. Halena Gazelka 16:55
It's like a needle in the haystack.
-  Dr. Gregory Poland 16:56
It is. You're exactly right, it's a needle in the haystack. It scares people, but it tells you this is how good our safety surveillance system is
-  Dr. Halena Gazelka 17:06
Talk about time consuming,
-  Dr. Gregory Poland 17:07
I know.
-  Dr. Halena Gazelka 17:08
Very time consuming.
-  Dr. Gregory Poland 17:09
That's why it takes so long to get these approved.
-  Dr. Halena Gazelka 17:13
Greg, our next listener wants to know if the COVID vaccine can prevent long-haulers syndrome.
-  Dr. Gregory Poland 17:19
Yeah, this is an interesting question, because we certainly see in unvaccinated people who develop asymptomatic, even mild disease, that they can develop symptoms. In fact, interesting statistic in a paper that came out, two thirds of the people that got COVID, but

were not sick enough to go to the doctor, within three months reported new symptoms that they had not had before. So, this is a real phenomenon. We are aware of a few. And it's very rare of people who have gotten fully vaccinated, who were healthy, got asymptomatic infection, and had persistent, at least so far, persistent, mild and in one case, I know of more severe symptoms. But you're talking about one out of hundreds of millions. So, it's extremely rare, but not impossible.

D

Dr. Halena Gazelka 18:22

Okay. So, our next question is about the Delta variant again. This person astutely points out that many healthcare institutions are not testing for variants necessarily when you're diagnosed with COVID. I don't think at Mayo that we necessarily routinely test everyone for the variant that they're suffering from. So, how do you know then that delta is the primary variant and that there aren't other variants out there that are more prevalent.

D

Dr. Gregory Poland 18:47

This is what I mean by very sharp listeners that we have.

D

Dr. Halena Gazelka 18:50

I told you, you'd be challenged today.

D

Dr. Gregory Poland 18:52

Yeah, so, what happens is you're right. At medical centers, what they're doing is screening for any SARS-CoV-2 virus and the assays we use, pick up all those different variants. What happens is that various institutions and the CDC screen a selected sample of those in order to get a sense of the changing epidemiology. So, a year ago, zero Delta variants. Six to eight weeks ago, about two and a half percent of the ones that they tested were Delta, then it became five, then 10, then 30, today 60% and that correlates too with what we're seeing in hospitals. 99.2% of the people dying of COVID in the US are unvaccinated people.

D

Dr. Halena Gazelka 19:53

Wow, that is sobering.

D Dr. Gregory Poland 19:55
I have had the experience, and I imagine many clinicians have of people who were just misinformed about COVID and end up in the hospital, end up very ill, or in a few cases that have died, and they'll often say to their surviving spouse, tell people we were wrong, tell people this is real. And it's just tragic that that has to happen. One after another.

D Dr. Halena Gazelka 20:25
So, keep getting vaccinated.

D Dr. Gregory Poland 20:27
Yes, get vaccinated.

D Dr. Halena Gazelka 20:29
Greg, our next question is about mRNA vaccines. Now, we've talked about this in the past, it's been quite a while so it might be worth touching on again. This individual is curious about the fact that this is the first mRNA vaccine that's really been in widespread use, and wonders will this be a vector for future vaccines, a mode of delivery for future vaccines? Do you expect to see more and more of it? Or is there something unique about the virus?

D Dr. Gregory Poland 20:55
Quite the contrary, and you're right, in fact, the first mRNA influenza vaccine trial is taking place already.

D Dr. Halena Gazelka 21:03
How interesting.

D Dr. Gregory Poland 21:04
So, I expect that we'll see this technology diffuse widely into routine vaccines. It's very efficient. And look at the kind of immunity that we're developing against the virus in the case of COVID. Now, the one thing that they are working on, as they do with every new vaccine is how do we achieve the same benefit, but lower reactogenicity, the side-effect profile?

D Dr. Halena Gazelka 21:35
Sure.

D Dr. Gregory Poland 21:36
Ideally, you don't want people to have a low-grade fever or a headache or feel tired for a few hours to a day. So, they're working on that part. And that's probably a function of the lipid nanoparticle that coats the mRNA.

D Dr. Halena Gazelka 21:53
How interesting. Oh, that is really interesting. So, this listener question comes from our online patient community Mayo Clinic Connect. If someone received the first vaccine two months ago, but they never went and got their second vaccine, or even more than two months ago, should they still go get their second vaccine? Is there a point where you're starting over in getting your vaccines?

D Dr. Gregory Poland 22:15
No. This is helpful. I'm glad you asked this question because it's going to be pertinent to a fair number of people who got the first dose, got scared reading the headlines or talking to other people about the second dose. You do not have to start over. Now until you get that second dose, you're susceptible, even more so against the Delta variant. If you only got one dose of an mRNA vaccine, you're only about 20-30% protected against Delta. If you get two doses, we're up in the high 80s and 90s. In terms of protection.

D Dr. Halena Gazelka 22:56
And is that different than the original?

D Dr. Gregory Poland 22:58
Yes.

D Dr. Halena Gazelka 22:58
Because of how transmissible the Delta variant is?

D Dr. Gregory Poland 23:01
Right, exactly right.

D Dr. Halena Gazelka 23:03
Okay, Greg, our next question is from an individual who leads religious services in their retirement community, and they're talking about how to restart their programming, especially gatherings where they wouldn't have masks on and are singing. So, what are the risks for gatherings with older folks who have been vaccinated in terms of breakthrough infections? And as fully vaccinated individuals? Is there a worry about asymptomatic transmission to unvaccinated staff and surrounding community if they gather without masks?

D Dr. Gregory Poland 23:39
There's a lot of questions buried there. And you know, it's not really possible to give a well, it's a one in 1000 risk, it's not really possible. What we can say is that when you are in a room with other fully vaccinated people, you don't need a mask. Now, what if you're somebody who's fully vaccinated, but immunocompromised, for example, and the best example would be somebody who's had a solid organ transplant, for that patient, I would wear a mask in that case, because you don't want to take even that minute chance. What about the situation where you have a mixed group, people who are vaccinated and people who aren't vaccinated indoors, where you're singing in a confined area, I personally would wear a mask even I mean, I know what my antibody level is, I am almost assuredly protected. I've had two doses, I would wear a mask in there, in part so that I don't have any chance of spreading something to them, in part to be a role model, and in part to prevent the really minute risk that I could get infected.

D Dr. Halena Gazelka 24:57
I remember some news articles, actually where there were some choirs, who had had difficulty at the beginning of COVID. Because there were studies afterwards showing that droplets are really propagated apparently with singing.

D Dr. Gregory Poland 25:12
Yes.

D Dr. Halena Gazelka 25:13
And so, I think in this situation, what you're saying is that these people wouldn't know if the staff there was vaccinated or not, or if everyone in their group is vaccinated, so they're...

D Dr. Gregory Poland 25:23
If they don't know, I mean, I'm kind of a belt and suspenders type person when it comes to people's health, I'd wear a mask. The cost and the inconvenience of a mask is nothing. You and I, all day long are in a mask. I don't even notice it. I know some people do. But I personally would wear a mask.

D Dr. Halena Gazelka 25:44
Does that differ if the meeting is outside?

D Dr. Gregory Poland 25:46
Yes, it would. However, again, if it's s a very large group, like a rally or something, I'd probably wear one. But for what you're talking about outside, I have much less concern.

D Dr. Halena Gazelka 26:02
All right. Well, thank goodness for summer. Maybe some outdoor gatherings then.

D Dr. Gregory Poland 26:05
I want to go back just to say one other thing about the Johnson & Johnson and the Guillain-Barre, which maybe will be reassuring, at least to some people. Those 100 cases have been seen primarily in men, and primarily in men age 50 and older. So, it is not being seen in younger people. And I remember to say that, because we're making such a push to get younger people vaccinated. That risk, if it's present, is no greater than the background risk from other respiratory viruses.

D Dr. Halena Gazelka 26:46
Oh, that's a great point to make, because there's been so much talk recently about the risk for younger people and adverse events. It's good. What else have you got to share with us today, Greg?

D Dr. Gregory Poland 26:56
Oh, let's see here. I mentioned that there have been summer camp outbreaks. We have seen these in Texas, Illinois, Florida, Missouri, Kansas. Now this is an interesting situation. These are people both vaccinated and unvaccinated in dormitory like settings in dining halls, and we're seeing outbreaks with this Delta variant. And they go home, they spread it to their families and then to the community. So, in these communities that are unvaccinated, this is where we're going to see surges. And for the unvaccinated people, they really are, to coin a term, variant factories. Every time somebody in a community gets infected, that virus has the opportunity to mutate. And is it conceivable that this virus will continue to get more transmissible and cause more severe disease and evade the immunity we have from vaccines such that we start all over again? Yes, that's conceivable. So, it really is, and I hope people will adopt a viewpoint, not just about their own well-being but the well-being of others. We're in this together and until we get really high rates of immunization, we will all at various levels be at risk.

D Dr. Halena Gazelka 28:36
Your points about summer camp are well taken and gave me flashbacks to when my kids came home with head lice from summer camp.

D Dr. Gregory Poland 28:43
I know.

D Dr. Halena Gazelka 28:44
I just thought that was about the worst that could happen. But they did not come home with the Delta variant so I can be grateful for that.

D Dr. Gregory Poland 28:50
Thankfully.

D Dr. Halena Gazelka 28:51
All right. Well, it's so wonderful to get together in person, Greg.

D Dr. Gregory Poland 28:54

It is Halena, a delight to be with you.

- D** Dr. Halena Gazelka 28:57
Wonderful. And any last words for our listeners today of encouragement?
- D** Dr. Gregory Poland 29:02
You know, what I what I try to say every time, if you are not vaccinated, please reconsider. I know that people are hesitant. I know that people are fearful over some of the headlines they see. But talk to somebody knowledgeable and expert in this, somebody credible. I have had many letters, Halena, from our listeners, who were hesitant and said after listening to us, they went ahead and got their vaccines, and they're wonderful letters. We've shared a few of them of how thankful they are that they did it. They had no side-effects, none of the things that have been hyped up or people are scared about. And they can go back to a normal, at least more normal way of living, much like you and I are right here. So, just a real encouragement. Let's be done with this. We can conquer this. If we all put our arms up and put our arms into this.
- D** Dr. Halena Gazelka 30:02
Keep taking care of each other.
- D** Dr. Gregory Poland 30:03
Yes, yes.
- D** Dr. Halena Gazelka 30:04
All right. Thank you so much Greg for being here. It's wonderful to be in person again.
- D** Dr. Gregory Poland 30:08
Yes.
- D** Dr. Halena Gazelka 30:09
And thanks to each of you too, for being with us today. Our thanks to Greg Poland, virologist, infectious disease, and vaccine expert from Mayo Clinic, of course, for being

here again today. I hope that you learned something I know that I did. We wish each of you a very wonderful day.



Narrator 30:26

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