

Mayo Clinic Q & A - Dr. Gregory Poland - Caption Audio - 06 ...

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SUMMARY KEYWORDS

people, vaccine, variant, unvaccinated, masks, smell, vaccinated, greg, transmissible, immunized, july, mayo clinic, immunosuppressed, immunization rates, measure, higher, virus, disease, pandemic, fourth

SPEAKERS

Dr. Halena Gazelka, Dr. Gregory Poland, Narrator

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- N** Narrator 00:01
Coming up on Mayo Clinic Q&A,
 - D** Dr. Gregory Poland 00:04
We are entering the most dangerous phase of the pandemic for unvaccinated people. We are already seeing the warning signs of that. The people who are dying or the people who are unvaccinated. The people who are getting disease severe enough to go into the hospital are the unvaccinated.
 - N** Narrator 00:26
If you have travel plans this fourth of July listen up. Dr. Greg Poland explains the risks and has some tips for those who have had the shot and those who haven't.
 - D** Dr. Gregory Poland 00:36
If you're going to a location where immunization rates are low and community burden or numbers of cases are high, you're going into a danger zone, and you had better be

immunized or take really strict precautions of masking and distancing and to some degree hand sanitization.

- D** Dr. Halena Gazelka 01:00
Welcome, everyone to Mayo Clinic Q&A. I'm Dr. Halena Gazelka. We're recording this podcast and Monday, June the 28th, 2021. The Fourth of July is almost upon us. It's next weekend. And for many families this will mean gathering together for a summer celebration. What should those celebrations look like in the time of COVID, particularly for those who are not vaccinated yet? Well, here to discuss this with us today is Dr. Greg Poland, infectious disease expert, a vaccine expert and virologist. Thanks for being here, Greg.
- D** Dr. Gregory Poland 01:33
Of course. Good morning.
- D** Dr. Halena Gazelka 01:35
How wonderful to see you today. Happy Monday again.
- D** Dr. Gregory Poland 01:38
Yeah, thank you. And I understand, if possible, in the next week or two, we're going to do our podcast together in the same room finally.
- D** Dr. Halena Gazelka 01:48
Won't that be fun to finally get to be together in the same room again. We're starting to loosen up just a little bit on some of those restrictions. That's great. Say Greg, how are we doing with vaccine numbers in the United States? That Fourth of July deadline for 70% is right here.
- D** Dr. Gregory Poland 02:08
You know, I wish I could say that we were going to hit that. Nationwide, when you look at the whole population, about 55% have gotten one dose of vaccine, and about 46 to 47% have been fully vaccinated. Now it gets higher if you just look at people, you know, 18 and over. It drops a little bit when you say 12 and older the groups that have access to vaccine, but we got a long way to go yet. Now some states have done really well. When you look

at Vermont, they are over 70%.

D Dr. Halena Gazelka 02:49
Wow.

D Dr. Gregory Poland 02:50
And other states that are in the 30s. So, quite a difference. I marvel at it because I wonder if the people down in some of the southeast states that have really low rates, would they look at the Northeast states and say we know something you don't?

D Dr. Halena Gazelka 03:10
There's still time. We have this week.

D Dr. Gregory Poland 03:12
We do and hopefully they'll get the message.

D Dr. Halena Gazelka 03:15
That's right. So, let's talk about gatherings. The Fourth of July is coming up. What advice do you have for people about gatherings this year on the fourth of July?

D Dr. Gregory Poland 03:25
Yeah. You know, I by nature in a pandemic am a little more cautious or conservative. I would say even if you're fully vaccinated, if you're going to be in large, crowded venues, wear a mask. If you're going to be outdoors, my concern is for those who are unvaccinated or who don't have healthy immune systems, they should be masked. So, what does that mean? Kids that are not eligible to get the vaccine yet, people who are eligible to get the vaccine who have not been fully vaccinated yet, and maybe elderly people with a lot of co-morbidities, somebody who's very immunocompromised, for example an organ transplant, they ought to be wearing masks when they're around crowds or other people from outside their, you know, immediate home environment. And that includes kids. You know, the difference from last year, at Fourth of July is we had a very different virus circulating then. Now what we're seeing is the exponential rise of the Delta variant and even beginning infections with the Delta Plus variant. And that's enough to give me pause to say these young kids that cannot get a vaccine yet need to be masked in a crowded

environment like that.

D Dr. Halena Gazelka 05:05

Greg, one of our listeners posed an interesting question that they sent by email, and I thought I would ask it of you. They were wondering about the comparison between how transmissible the Delta variant is with say, another viral disease such as measles.

D Dr. Gregory Poland 05:22

Hmm, that's a very good question actually. Measles is something I've studied for over 35 years now. Measles is the most contagious infectious disease that we know about.

D Dr. Halena Gazelka 05:36

How interesting.

D Dr. Gregory Poland 05:37

And you know, I often joke the only more contagious diseases is fear and ignorance, but measles requires immunization rates of 95 to 97% to reach herd immunity. You know, we use a measure, we have to nuance or maybe explain what it means. But people have heard about the reproductive number or R nought. That's a number that measures how widely a disease would get transmitted in the absence of any intervention or any other ways of inducing immunity. So, with that proviso, the R nought or reproductive number from measles, it can be as low as 12 to as high as 18. By contrast, that same number for seasonal influenza is about 1.3. Now, with these new variants, I should say that the original strain and this will reinforce what I explained about R nought. The original strain was about two and a half to three, three and a half, something like that. As people have gotten immunized and infected, that reproductive number has dropped. So, even though this Delta variant is almost 100% more transmissible than the original virus, the R nought for that is still in the 1.4 to 1.6 range, something like that. The better metric is something called the effective reproductive number. That takes into account that it's always changing. As you might imagine, as more people get immunized or infected, the less number of people there are to spread it to. And that number for COVID is less than one. So, it's a motivating metric in terms of getting people immunized. So, again, and you and I have talked a lot about this, we get immunized not only to protect ourselves, but to protect vulnerable people who don't respond well to the vaccine and kids who can't get vaccinated yet. And I think people really need to consider that in their decision making. We get vaccinated to help protect other people in addition to ourselves.

D Dr. Halena Gazelka 08:21
And so, Greg, would it be correct to say that the Delta variant is more transmissible than then the previous COVID variant, correct?

D Dr. Gregory Poland 08:32
Absolutely. In fact, a way to think of it when you look at the original virus that circulated, then we develop the so-called UK or Alpha variant. That Alpha variant was about 50% more transmissible than the original. Now we've developed the Delta variant and the Delta variant is about 50% more transmissible than the Alpha variant, which was 50% more transmissible than the original virus.

D Dr. Halena Gazelka 09:03
So, should that make us more concerned about this being aerosolized indoors, outdoors on surfaces than the original virus?

D Dr. Gregory Poland 09:14
Yeah. I mean, certainly, it does have that implication for the primary reason that the reason or the mechanism by which it's more transmissible is in part, viral titers or viral loads that are about fourfold higher. So, you can imagine if I had, you know, 10 viral particles with the old virus and had the possibility of expelling those 10, now it's four some people say in some circumstances, even up to 10-fold higher. Now, it's not 10, you know, it's four times that it's 40 that I might be expelling. And of course, when we're measuring those titers, they're in the 10s of 1000s to millions. So, a four-fold increase is a significant increase and risk of transmitting it primarily by aerosol and droplet. The notion of hard surfaces, I think it's been tough to show that somebody has touched the surface and then gotten infected. Surely it must happen. But as you might imagine, doing a study to detect it is really difficult.

D Dr. Halena Gazelka 10:36
Sure. That was a lot of talk about numbers, Greg. So, let's turn our thoughts toward travel for a little bit. Have you seen how busy the airlines have been? It is absolutely amazing how many people are starting to travel this summer? What recommendations would you have for travel?

D

Dr. Gregory Poland 10:55

You know, again, I have concerns and this is a moving target. So, what I would say today is different than what I might say, three weeks or a month from now, because this is a very dynamic situation. I think it depends on a number of factors. And it's really hard to say one blanket term, if you're going to a location where immunization rates are low, and community burden or numbers of cases are high, you're going into a danger zone, and you had better be immunized or take really strict precautions of masking and distancing. And, and to some degree, hand sanitization. If you're you know, fortunately, in the exuberance for pretending that the pandemic is over by eliminating almost any kind of requirements. Fortunately, when it comes to bus and train and airline travel, they have preserved the requirement for proper masking. That's really important when we see, and you have to realize when you're on an airplane, you potentially are in an airplane with people who are infected, who may not know it, some who know it, and get on an airplane anyway, people traveling from other regions of the US and from the world. You don't know what variants they're carrying. You don't know how symptomatic they are. You don't know the health of their immune system. And so, you're wise to take all of that into account. And when you are around indoors, groups of people that you know, are not in your bubble, so to speak, I think you should wear a proper mask properly. Now, why do I say that? Even if you've gotten two doses of vaccine, it sounds a bit contradictory. Well, it's true that if your immune system is healthy, and you've gotten fully vaccinated, so two provisos there, your risk of getting hospitalized or dying, is low, really, really low. It's not zero, but it's low. Your risk of getting moderate to mild disease is a little higher. Your risk of getting asymptomatic disease a little higher yet. And the issue is not what kinds of symptoms am I experiencing right now? It's will I pass this on to other people, and might I have so-called long COVID, even from mild, moderate or asymptomatic disease. So, it's not just am I going to die or be in the hospital? That's important, especially at a public health level. But there are secondary considerations. Am I going to pass it on to my child to my co-worker who might be immunocompromised? Or am I going to develop mild to moderate disease and end up with a long-term side effect?

D

Dr. Halena Gazelka 14:10

You brought up a couple of questions that I want to ask. But first, I just wanted to comment about the travel. Now Tim and I have been on an airplane. We went to a grand child's birthday, actually. And it is kind of fascinating that now, I'm sort of starting to adjust to not get that anxiety when I go in a public venue where everyone isn't wearing masks, because that's quite common now. But in the airport, that was the one place where everyone was wearing masks again and on the airplane. So, it's very interesting. In fact, they made note that you should only move your masks down to take a sip of your drink or a taste of your snack, etc. and then have your masks back in place.

- D** Dr. Gregory Poland 14:53
That's really good. And you know, unfortunately, we have people who really suffer from misinformation and disinformation that cause a lot of issues and problems. The reason we have Delta, the reason we have Delta Plus is from unimmunized individuals who get infected. And every time somebody gets infected, we run the risk of a new variant.
- D** Dr. Halena Gazelka 15:22
Now, Greg, I had read that the COVID deaths that are occurring are primarily only among the unvaccinated. Is that true or not?
- D** Dr. Gregory Poland 15:31
In fact, you're right Halena. In the US, this would not be true for other areas of the world, but in the US 99.2% of the COVID deaths are in unvaccinated people. Now, you and I talked about this a couple of weeks ago. And on that last show, I predicted that we are entering the most dangerous phase of the pandemic for unvaccinated people. We are already seeing the warning signs of that. The people who are dying are the people who are unvaccinated. The people who are getting disease severe enough to go into the hospital are the unvaccinated. And unfortunately, and it grieves me, this includes kids and young adolescents who don't have a choice about getting the vaccine, but whose parents or other relatives that they're exposed to have chosen not to get the vaccine and spread it to them.
- D** Dr. Halena Gazelka 16:36
So Greg, another question that we frequently receive is about boosters. Should anyone be getting boosters? And should those who have had perhaps organ transplants be receiving booster?
- D** Dr. Gregory Poland 16:49
Well, you actually put your finger Halena on the on the most important, I think, immediate question. So, just to be clear, in the US right now, there are no recommendations for a booster for anybody under any condition.
- D** Dr. Halena Gazelka 17:07
Okay.

D

Dr. Gregory Poland 17:07

Now, as you and I know, because we've practiced medicine for a long time, there are nuances, and there's the art of medicine. So, we don't have science-based recommendations yet, because the science has not all been done. So, let's take the case of solid organ transplant patients. They're among the most immunosuppressed. So, how do we protect them? Well, the studies have shown and I'm going to simplify because there are a number of studies. But after one dose, you maybe get protection in the low teens. After two doses about 30 to 40% of transplant patients can be protected. After three doses, and I'm talking about mRNA vaccines now, they've been able to demonstrate protection up to about the 70% level. So, I was on a phone call last week with senior decision makers in the US about this. And you know, we talked very freely about the fact that we need more data. We are keeping an eye on these variants. It is likely to be the variants over anything else that might push us toward a booster. So, again, we're seeing an effect we need never have worried about had we been able to get people to wear masks and get vaccines. So, I think we'll first see recommendations in people who are highly immunosuppressed. I think it's very much an open question at this point as to whether otherwise healthy people will need vaccines, possibly we'll see a recommendation in the elderly. But again, we don't have a full measure of what's called a correlative protection. And even those correlates of protection, for the most part, ignore cellular immunity, which is an arm equally as important as antibody. So, a lot of work and research to be done. I think where we'll make that decision is if we start seeing breakthrough infections occur at greater rates over time in certain subpopulations, like organ transplants or immunosuppressed, or the elderly. But at this point, I think we're doing the right thing and preparing for the idea, but I think any recommendation at this point would be premature.

D

Dr. Halena Gazelka 19:47

Okay. So, for now, get the vaccine the way that it is intended to be administered, mRNA two doses, Johnson & Johnson one dose, okay.

D

Dr. Gregory Poland 19:55

Absolutely.

D

Dr. Halena Gazelka 19:57

All right on another topic. It has been of great interest to me how troubled some of the individuals that I have known, even some colleagues of mine by the loss of taste and smell

that has occurred when they've had a COVID infection. And it's been a little bit unknown. I've had patients who came in months after they had had COVID and still had that loss. And there's some new information about that. What is it, Greg?

D Dr. Gregory Poland 20:25

Yeah, you know, this is really interesting. And this was a study that was just started to be talked about and released. So, two things happen. One is the recovery of taste and smell. And at least in the regard of smell, there was a study of I think it was 51 individuals where they actually did objective tests. In other words, ways of measuring smell. And what they found, was that a very, very high percentage, I believe it was 96% of people had fully recovered their sense of smell by eight months by objective measures. What's interesting is that more than half of them believed that their sense of smell had not recovered. Now, this leads to another interesting phenomenon that we've seen as a post COVID syndrome. In fact, I was interviewed this morning about it, and it's called parasomnia. So, it's basically the idea that people begin to smell a phantom smell. The particular person I talked to this morning, could not get away from, he's always smelling what smells like a campfire. Another individual I talked to smells rotten eggs. You can imagine how distressing that would be. Another individual where coffee, if you can imagine, or meat has a rotted smell to them. And we could kind of envision a mechanism by which this would happen, as you have a distorted recovery of the blood supply to damaged nerve cells. As those nerve cells begin to regenerate or recover from that. So, I think still a lot to learn when it comes to sensory perceptions, those can be hard to objectively measure. And our own sense of it is by nature subjective. I lost my sense of smell after I got influenza one year, and as best I can tell, it's probably 90 to 95% recovered, but that took a few years in my case. So, this is not unknown to us with viral infections.

D Dr. Halena Gazelka 23:01

It's very interesting. I think if you could pick a smell, maybe it should be something like s'mores for the Fourth of July.

D Dr. Gregory Poland 23:06

Or coffee.

D Dr. Halena Gazelka 23:07

Or coffee. That's right.

D Dr. Gregory Poland 23:10
Dark chocolate.

D Dr. Halena Gazelka 23:12
Anything else you want to share with our listeners today?

D Dr. Gregory Poland 23:15
Oh, let's see. I think a couple of, I think a couple of other things to think about when we think about immunization. Only 10% of the rest of the world is vaccinated. So again, when we travel, you know, by nature as a physician, I'm an observer. I'm an observer of people and their habits. And as best you can guess, by listening to language, maybe seeing type of dress or something, you're frequently traveling with people that come from a variety of countries, particularly if you're flying internationally, or into big international hubs here in the US. So, it's really, I think, important to think about that. Another interesting thing, you may remember way back when we talked about the phase three clinical trials, there was a slight imbalance of Bell's Palsy in one of the trials. What's interesting is it's becoming more apparent that Bell's Palsy can be a complication of COVID. And just for our listeners, Bell's Palsy is where you lose, generally temporarily, the function of a muscle that controls face muscles. So, you'll see you know, somebody where the side of their faces is flat looking compared to being able to smile with the other side of their face. It's a very distressing thing to have happen. So, we're beginning to learn about almost every organ system being affected by COVID disease compared to the rare, but limited side-effects, generally very temporary, that can occur due to COVID vaccines. And so again, you know, I caution our listeners, think about the huge risks related to COVID disease and the teeny risks, risks that are present, but are so small, we have not been able to measure them until we have hundreds of millions of people vaccinated. We're over 300 million vaccines administered in the US, and you can barely see those little signals compared to the obvious things that happen with COVID.

D Dr. Halena Gazelka 25:46
That's really amazing.

D Dr. Gregory Poland 25:48
Yeah.

D Dr. Halena Gazelka 25:49
That's quite the perspective. Thank you, Greg, for being here today and for sharing that

D Dr. Gregory Poland 25:53
Of course.

D Dr. Halena Gazelka 25:54
Our thanks to Dr. Greg Poland, infectious disease expert from Mayo Clinic for being here again with us today to give us our COVID-19 update. We wish each of you a very safe Fourth of July. And get vaccinated. You still have time to help us make that 70%, I hope that you learned something today. I know that I did. We wish each of you a very wonderful day.

N Narrator 26:17
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