

Mayo Clinic Podcast - Dr. Gregory Poland - YouTube - 03 08 2...

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SPEAKERS

Dr. Halena Gazelka, Dr. Gregory Poland, Narrator

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Narrator 00:00

Coming up on Mayo Clinic Q&A:
- D

Dr. Gregory Poland 00:03

When you look at nine months from when we first identified this pathogen, to having a vaccine, that is as close to a human miracle, if I could use that term, as one could expect.
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Narrator 00:17

But the promise of those vaccines is not enough for a quick return to life as it used to be.
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Dr. Gregory Poland 00:23

We and other countries have seen the fallacy of doing that. I mean, on the one hand, there's kind of the human pressure to get back to normal, but at what cost? There's a there's a way to do this, as I often characterize it, opening up and getting back toward normal is not a light switch.

D Dr. Halena Gazelka 00:44
Welcome, everyone to Mayo Clinic Q&A. I'm Dr. Halena, Gazelka. We're recording this podcast on March the 8th, 2021. One year ago, on March the 11th, 2020, we brought you our first COVID-19 podcast. At that time, we knew very little about this virus and what a lot we've learned in a year. Thankfully, we've had an expert, Dr. Greg Poland, to come along with us and teach us so much. Now, Dr. Poland has been on our podcast more than 50 times. And, he's here again today to celebrate our one-year anniversary, and to tell us more about COVID. Dr. Poland is an infectious disease, virology and vaccine expert from the Mayo Clinic. Welcome back, Greg.

D Dr. Gregory Poland 01:28
Thank you, boy, over 50 times what a great, what a team.

D Dr. Halena Gazelka 01:35
It is a great team, and that's just that's just a little bit of the times that you've been interviewed.

D Dr. Gregory Poland 01:39
Yes.

D Dr. Halena Gazelka 01:43
Greg, I'm coming from home today, because I'm off, but I did not want to miss our one-year anniversary of our podcast working on COVID-19 as a family here. So, I'm so glad to be here with you today.

D Dr. Gregory Poland 01:58
You know, I do the same thing. I try to schedule everything around this because you know, the cards and letters we were talking about just before we started here are so encouraging, people constantly telling us how valuable it is, how hard it is to get unbiased information. So, I feel like you know, we're doing something really valuable and worthwhile.

D Dr. Halena Gazelka 02:21

It has been amazing, Greg, and I've been so gratified even with my co-workers and colleagues at Mayo Clinic when I walk down the hall to share with me that they are using our source of information as a true source and for us to bring them the truth and the up-to-date information every week.



Dr. Gregory Poland 02:38

Wonderful.



Dr. Halena Gazelka 02:41

Well, Greg, let's take a look back. Tell me what has surprised you the very most about all that has gone on in the past year?



Dr. Gregory Poland 02:52

You know, it's I guess, probably like two sides of a coin. On the one hand, I've been disappointed at making something that is a medical and scientific issue into a political or economic or religious issue. Yes, they have elements of that, but fundamentally, to reject good science-based recommendations because of some, you know, misinformation is sad. When you look at that, when I look back over the last year, now one out of every 11 Americans has been infected. And one out of every, as of this morning, one out of every 609 Americans has died of a disease we know how to prevent with a simple mask. So, that has been discouraging at times. But the bright side is, that I think Americans are beginning to understand that. They are masking, I see much, much better masking behavior. When you look at nine months from when we first identified this pathogen to having a vaccine, I mean, that is as close to a human miracle, if I could use that term, as one could expect. And as of this morning, one out of five Americans has gotten at least one dose of vaccine and almost 1% of Americans, 31 million people, have been fully immunized. And, contrary to polls that we saw early on, the demand is not ceasing. I mean over the weekend, almost two and a half million doses of vaccine were given on Saturday and Sunday. And Pete as you know, people are lined up so I think we've got a real chance with this if people will stick to that. Now, you know, one of the other things that's frustrating is as soon as we make some progress, everybody wants to open up and relax restrictions. And, we and other countries have seen the fallacy of doing that. I mean, on the one hand, there's kind of the human pressure to get back to normal. But at what cost? There's a, there's a way to do this, as I often characterize it, opening up and getting back toward normal is not a light switch. It's a rheostat based on observation and measurement. And when you're happy when you start relaxing mandates, you're you know, you're going to increase those rates. A study just came out from the CDC, showing that in counties that relaxed risk masking

restrictions and allowed in person dining cases, hospitalization and death rates just started increasing, so you got to do it in the right way.

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Dr. Halena Gazelka 05:59

Well, that's a lot. How exciting about the vaccination rates. One of the things that surprised me the very most about this year is how quickly life can change. I think I didn't see this coming. Like many Americans, I was absolutely completely blindsided. When I came home from vacation last year, and was told that we were closing down the Mayo Clinic that life is we knew it was essentially closing down. And we were all staying home. And I was really actually personally rather shocked by how quickly that can happen, and what an amazing time to be able to re-assess what's important to you and you know, where we're all going. It was really, it's really been impactful I think in lot of people in a lot of ways.

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Dr. Gregory Poland 06:45

Yeah, you know, well, well said. It really has changed our notions of stability. You know, for me, all my life, you train for these sorts of things and particularly in vaccinology, with how you mitigate those efforts. And so, it is surprising to me to, to all of us go through that common experience, and yet have people who, well the problem is they don't look at the data, I was going to say, look at the data and decide, no, I don't want a vaccine. Ha Ha. That just amazes me, it floors me.

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Dr. Halena Gazelka 07:22

It does. It really is amazing. When you think about the fact that the carrot is dangling out there, the hope that we're going to get back to normal, whatever our new normal is, I guess that remains to be seen. But that's part of this ever-changing landscape.

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Dr. Gregory Poland 07:35

Yes, indeed.

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Dr. Halena Gazelka 07:37

Greg, you and I have talked many times about the changes in the scientific community, the incredible advances that have been made in scientific discovery during the time of COVID, and the publications. You know, we're scientists, we know how long it often takes to work on trials and get things published, and so much has happened in the past year.

How has COVID-19 changed the scientific community? And do you think it's changed for good?

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Dr. Gregory Poland 08:05

You know, I think there are elements that will be changed. I'm a medical journal editor myself, and you know, the number of articles we've received is just, you know, a torrent. And it's increased our workloads dramatically, but for a good reason. We're getting that information out. And then it gets digested by the media and in turn, given to the public, I do think that's one of the things that will change, is we need to find better ways to communicate science and public health messaging to the public. I think mRNA vaccines have just had stunning efficacy and safety, I think we're going to start seeing those used in any disease where antibody against a protein is helpful, for example, in oncology, in allergy, and other infectious diseases. And I think the other thing I've really been impressed with is international collaboration. And this is all the way along the vaccine development line, from regulatory agencies to universities and individual scientists, really putting together these massive phase three trials and international studies that have benefited us greatly. So, I think that those will be changes to the positive. Unfortunately, George Bernard Shaw said, and I think with good warrant, "The one thing we learned from history, is that men never learn anything from history." Now, my daughter did point out he said men. Ha Ha.

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Dr. Halena Gazelka 09:42

Ha Ha. I wasn't going to say anything.

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Dr. Gregory Poland 09:45

But my less optimistic part tells me that once we're past this, we will lapse back into a certain amount of denial. We have never, as a global medical concern, we've never given prevention, the due that it should have, and the funding that it should have. We like the, you know, exotic scientific things, and yet, these are the things as you pointed out that fundamentally change human life.

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Dr. Halena Gazelka 10:17

Greg, you mentioned a little bit earlier, how many vaccinations were given out this last weekend? Can you bring us up to speed on the numbers overall on vaccinations? Where are we and how close are we getting to that herd immunity, a point that we need to reach?

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Dr. Gregory Poland 10:35

Yeah, you know, herd immunity is a concept that we do talk about, it's kind of a theoretical construct. It's very hard to see how we're going to reach herd immunity in the near future. And the reason for that is, of course, there's a fair number of the population we can't vaccinate yet, right? Younger kids, for example. And then there's the proportion of the population that refuses vaccines. Together, those add up to more than 20% of the population, and at least one study in Brazil showed that you need north of 80% immunity in order to reach this idea of herd immunity. So, you know, as I mentioned, about one out of five Americans has gotten at least one dose of vaccine. And I think the pace of vaccination has dramatically accelerated. You know, we're headed toward two and a half to three million doses delivered a day. My personal opinion is that we need to get one dose into people as quickly as possible, the data are clear on the benefit of that. We need to do what they're doing in New York City, they've got vaccination centers that run 24 hours a day, and if the supply will bear that, I think I think we should be doing that. I think the other thing that kind of adds some uncertainty to all this is the effect of viral variants, because they, the vaccines, are less effective against preventing transmission of them, even though they're very effective in preventing death or severe disease.

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Dr. Halena Gazelka 12:22

I was going to ask you next about variants, so I'm glad that you brought that up, and what we know now about the various vaccines and their effectiveness.

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Dr. Gregory Poland 12:30

Yeah, so you know, they do differ by vaccine in general, and I'm a bit simplifying here. But for the major variants that we know about, they seem to increase transmission by about 50% and increase their disease-causing ability and lethality by about 30 to 50%. So, these are bad viruses, these mutant changes are not good for humans. Now, fortunately, and we have the most data with the mRNA vaccines, and to some degree with the Johnson & Johnson vaccine, the efficacy against death has been 100%. The efficacy against severe disease 100%, of hospitalization 85%. Even though you read numbers, for example, with J&J in the South African arm of the study of efficacy being about 66%. You have to remember that was against mild and moderate disease. The more severe outcomes, which we really care about with human health, it performed excellently. So, still a lot to learn. Our concern is that these variants, if we don't get as many people immunized as quickly as possible, that they'll continue to arise and potentially become more lethal.

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Dr. Halena Gazelka 13:56

But your expert advice, Greg, as you said before, would still remain to take whatever vaccine you're offered. Is that true?

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Dr. Gregory Poland 14:03

Absolutely, whatever vaccine you have available to you get that vaccine, get it now, continue to wear your mask until we have large scale immunization, and then that rheostat I've talked about. Then we can begin step by step-by-step in a careful measured way that doesn't hurt people, begin to reopen, and begin to enjoy the lives we knew.

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Dr. Halena Gazelka 14:32

Greg, I read something interesting on the news that I wanted to ask you about it. I had read that obesity affects how effective the vaccine might be for individuals. And I'm wondering why, how, and does it matter which vaccine?

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Dr. Gregory Poland 14:47

Yeah, this seems to be a common factor for all vaccines, not just COVID vaccines. In fact, an international report was just released, and I thought this was very interesting. 90% of the COVID deaths that have occurred in the world are occurring in countries with high levels of obesity. And you look at more those mortality rates, they're 10 times higher in countries where at least 50% of the adults are overweight. Now, there are other studies, and I looked up a few of them. In Italy, obese healthcare workers only developed about 50% of the antibody response that normal weight people developed. And this is even in the US when they've looked at data like this, the risk of hospitalization among people who are obese was 113% higher, and the risk of dying about 50% higher. Now, why should this be? Well, it's true, basically, with all respiratory diseases. We've known that for some time, it's true of influenza. Part of it has to do with the fact that they tend to accumulate other concomitant diseases, heart disease, type II diabetes, for example. So, that adds to the risk. The other thing is that chronic overnutrition is actually a state of mild to moderate immunosuppression, it's immunocompromising. And the reason for that is it leads to a state of chronic inflammation, which directs the immune system in an adverse way. So, you know, what do we do about that? Well, we don't really have a vaccine solution to that, per se. And you know, truly, and I count myself in there, even though I'm able to get outside and exercise, I've gained a few pounds during this COVID year, and probably all of us are going to have to struggle a little bit with being careful about our nutrition and getting exercise.

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Dr. Halena Gazelka 17:03

I like to call it the COVID 15, Greg. It used to be that went to college and you gained 15 pounds the first semester, now it's COVID. Always good advice to get out there and exercise when you can safely. Speaking of getting out there. Greg, you brought up a little bit earlier about people wanting to open things up too early, and some states have moved toward it. What comes to my mind immediately is Texas, where I had heard that the masking, you know, that's now very optional I think, that's my understanding. But when people are looking forward to summer, are we going to have a summer where we still mask? Are we going to have a summer where we can get out and do the things that we weren't able to do last summer? Tell us what you see ahead of us.

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Dr. Gregory Poland 17:53

Yeah, you know, I think something that bears considering is that every step ahead of us, is in large part determined by the steps we've just taken. So, if we continue down a pathway where people mask their restrictions on gatherings, we get people immunized, and we do this step by step, I think we're going to enjoy a nice summer. If on the other hand, we say just because we're sick of it, well, let's throw the masks, burn them, reopen dining and sports and everything else, that will determine for us a surge in cases that will almost certainly occur. And the reason for that is not mysterious, when you still have circulation at a reasonably high level of these variant viruses, they will transmit and in fact, transmit more easily than the strain we faced last March when we were talking about this. So, it's really unfortunate that, you know, it's sort of human behavior, determining this rather than the science, there are ways to do this safely, and there are ways to do it in it such that it is not safe and will prolong this pandemic. I think the big news though, is that by this summer time, I think we're going to have every adult that wants to get a vaccine vaccinated, and that will go a tremendous way in toward dampening this down. Will we have another fall surge? It depends on our behavior now.

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Dr. Halena Gazelka 19:41

So, getting back to what you always say, Greg, hands, face, space, and vaccinate right?

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Dr. Gregory Poland 19:47

Vaccinate. Absolutely. It's simple.

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Dr. Halena Gazelka 19:52

Greg, we've enjoyed some good time chatting while we're doing podcasts, but also developing a friendship over this past year. And so, you know, I kind of like silver linings. And so, I thought maybe you and I could share a couple of silver linings from COVID, and I'll tell you what mine are. My silver linings of COVID-19, which has so changed our lives, are that it's been a great time to sort of reassess. My world has been made smaller, I haven't been traveling overseas, like I typically have, or even to various parts of the United States for medical meetings to present lectures, et cetera, et cetera. And, that's been actually a blessing in disguise, it's been kind of nice, to be a little closer to home, to have time to do some more things, my cabinets have never been so organized. And so, there have been some good things about it. I also really enjoy Zoom personally, I like this being able to see people while I'm meeting with them from far away. And so, I've enjoyed some aspects of COVID-19, and I'm wondering if you have some that you could share?

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Dr. Gregory Poland 20:57

Yeah, you know, I think for me, I feel similarly. I've been able, even within these confines, to be very productive, and I hope helpful. So, that's been one thing. The second thing, and you know, maybe it sounds a little corny, but I've been able to spend a lot more time with my wife than I normally would have been, just because of the nature of what I do. And that's been a real blessing. And I think the other thing as you said, you know, as my world got smaller, my worldview got larger. We're all in this together, all through the globe. And for me, you know, one of the things that began to take predominance is the spiritual side of life, believing in something bigger than myself. As I say to people, plagues and pandemics have purposes, and it would be good for us to attend to some of those purposes and to think beyond just sort of the shallow level of life that, you know, we rush through. So, you know, I'm actually thankful for those aspects of it.

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Dr. Halena Gazelka 22:15

I agree with you, Greg. I think it's really important for us to be available and ready to learn whatever it is that we need to be taught in a moment. Maybe that will prevent us from repeating it.

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Dr. Gregory Poland 22:24

I hope so.

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Dr. Halena Gazelka 22:26

Any last thoughts for our listeners today, Greg?

- D** Dr. Gregory Poland 22:29
You know, just what I always want to do, is encourage people. One of the things, and we've dealt with it here, is the next pandemic really is one of mental health. And we need to support each other, encourage each other, help by giving good information, not misinformation to one another. And I think Halena, you and me and Jen, who the world never gets to see who's behind all this, Jen O'Hara, our producer, you know, we've done work that makes me feel good when I lay down at night. We've done good work together, and we can each of us, everybody who hears this recapitulate that with our neighbor and family by sharing this information and helping people to stay healthy. We're going to make it through this. We are, not all of us, because not all of us have taken the precautions. But if we do, we're going to make it through this. And we're going to enjoy our lives again, probably in a more enhanced way than we ever thought possible. So, that gives me a lot of solace.
- D** Dr. Halena Gazelka 23:43
I'm glad that you brought that up, Greg, because I think that while there are silver linings, there are a lot of people struggling. And so, our hearts go out to them. But, I'm certainly glad to be here with you today sharing information, and we plan to continue to do that.
- D** Dr. Gregory Poland 23:58
Happy one year.
- D** Dr. Halena Gazelka 24:00
That's right. Happy one year anniversary of COVID-19 podcasts and more to come.
- D** Dr. Gregory Poland 24:05
Yes, indeed.
- D** Dr. Halena Gazelka 24:07
Thanks to Dr. Greg Poland for being with us today. You all know him well by now. I hope that you learned something today. I know that I did. We wish all of you a wonderful day.
- N** Narrator 24:18

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