

Erica Coghill: Hey everyone. My name is Erica Coghill, spokesperson for Norton healthcare. Welcome to our Engage speaker series. This is an educational opportunity to help keep the community informed about relevant healthcare topics. We're so glad that you joined us. Now, kiddos are gearing up for heading back to school, so we wanted to offer up a conversation with some of our healthcare experts to ensure that families are prepared. Here with us today, we have a panel of Norton Children's physicians. First up, Dr. Kristina Bryant, infectious diseases specialist with Norton Children's Infectious Diseases, and she's going to talk about vaccines, including the COVID-19 vaccine. Dr. Erin Frazier is a pediatrician with Norton Children's Medical Group Broadway, she's going to talk about prevention topics, for example, healthy sleeping and eating habits. Dr. Jameel Clark, he's a pediatrician with Norton Children's Medical Group Dixie, is going to share about back-to-school sports physicals. Dr. Kent Walker, pediatrician, pediatric orthopedic surgeon with Norton Children's Orthopedics of Louisville, is going to talk about injury prevention as it relates to sports. Now, at the very end, we are going to have some time for questions. So we encourage you to leave those questions in the Q&A box, and we will address those, given the time that we have allotted. We're first going to kick off the conversation with Dr. Bryant, but before we get to her, I'm going to hand it off to Russ Cox, CEO of Norton Healthcare.

Russ Cox: Thank you so much, Erica, I appreciate that. Last June, we put forth our Five Imperatives to address healthcare and racial inequities, and one of the things that we talked about was one that's very specifically stated: We wanted to provide more education and advocacy on health policy issues to help our workforce make more informed choices. Now typically, so far, we've used the Engage platform to hear from our elected officials, but today's really special because we've got an opportunity to hear from a wonderful panel of our providers who are going to provide information, and I want to use the word that will allow us all to be more informed about the things that are going on in our community that have to do with back-to-school, that have to do with COVID, that have to do with those things that Erica talked about. So, it's a wonderful thing that we're able to convene. It's a wonderful thing that we're able to provide information to help us all make more informed choices. So, thank you for tuning into these, and thank you to each and every one of you physicians who've taken the time to help us get ready for the next few months ahead. So with that, I'm going to turn it over to Dr. Bryant. Kris?

Kristina Bryant: Thank you very much. And thank you to the audience for joining today. I know that there is a lot of information out there about COVID-19 in kids. Some of it's confusing, frankly, some of it's conflicting. So, what I want to do today is show you some data, not just national data, but data from Norton Healthcare, so that you have what you need to make the best choice for your children and your family. So, the pandemic, unfortunately, is not yet over. Cases of COVID-19 are climbing in many communities, including our own. You may have heard, "COVID, it's not really a big deal in kids." Well, according to the American Academy of Pediatrics, there've been 4 million cases of COVID-19 in children since the start of the pandemic. Four million! Now, it is true that many kids have mild or asymptomatic disease, but not all of them.

If you take a hundred kids with COVID, one or two will need to be hospitalized. Our experience here is generally two out of a hundred. Kids with COVID, even those who

have asymptomatic disease, are at risk for a rare but life-threatening complication called Multi-System Inflammatory Syndrome, or MIS-C. There've been more than 4,100 cases of this across the U S since the start of the pandemic. More than 400 children have died of COVID, that's according to early or provisional data from the CDC. And we're just now really learning about cases of long COVID in children, so children a month from their initial infection who still have symptoms.

All right. So, what's happening here at Norton Healthcare? Well, first let's talk about our positivity rate in children. More tests are being sent in children, and more tests are positive. Our current positivity rate is 13% in kids, and that's really being driven by the positivity rate in teenagers. Now let's look at the total number of cases. You can see that we were doing well in early June, but over the last week or two cases have jumped dramatically. Now, kids now comprise about 20% of our positive cases within Norton Healthcare. You can see that these are split about evenly between the 12-to-17 year olds and the under-twelves. I will tell you that we've also seen an increase in hospitalizations. And last night we had seven kids with COVID hospitalized at Norton Children's.

Now the good news is that for kids who are at least 12 years of age, COVID-19 is now a vaccine-preventable disease. So why do we want to vaccinate teenagers? Well, yes, some of them, many of them have mild disease, but not all of them. And according to the CDC, there have been more than 13,000 hospitalizations in teenagers with COVID. We know they're at risk for multi-system inflammatory disease. We also immunize teenagers to protect other people. Adolescents can transmit COVID-19 in their households and their communities. Transmission in teenagers looks a lot like transmission in adults. And we have safe and effective vaccines in adolescents, that's the good news. The bad news is we're not getting the vaccine into kids' arms, like we'd like to. So, this slide, you see that vaccination rates in kids are lagging. This is data from the American Academy of Pediatrics. And if we just look at those 16-to-17 years of age, only 47% have had at least one shot. Younger kids, 12-to-15, 36% have had at least one shot. So, we're not reaching as many kids as we'd like to. Now, if we look at the state of Kentucky, we are in the bottom half, for sure, on this slide, our proportion of U.S. children immunized by state. And the most recent data from Kentucky is that only 29% of our eligible kids have had at least one shot.

All right, this study was reported on a survey done by the CDC in April. They asked teenagers and their parents, "Are you going to get a COVID-19 vaccine?" And just over half of the teenagers said they wanted the shot. And a little more than half of their parents said they were willing for their teens to be immunized. That's the good news. The bad news is that we've got just about half of teenagers and their parents who aren't yet sure. There's a lot of misinformation circulating, especially on social media. "The vaccine attack affects fertility." It doesn't. "The vaccine affects menstrual cycles." It doesn't. "The vaccine has a lot of side effects." In fact, serious side effects are quite rare. This is a safe and effective vaccine for adolescents. And I encourage any parents with questions to make an appointment with their pediatrician, to talk about the vaccine and why it could be a good choice for their teenager. I know we have time for questions at the end, so I'll stop there and turn it over to Dr. Frazier.

Erin Frazier: Hello everyone, can you hear me? Okay, great. Well, like she said, I'm Erin Frazier, I am a general pediatrician with Norton Children's Medical Group on Broadway, and I'm going to talk to you a little bit about sleep and nutrition. First of all, let's just say sleep is one of the most important things that we need for our children. It keeps them safe so that they're alert to their surroundings. Good sleep is very important for your mood, for your behavior. It can affect your ability to learn, and good sleep really, really is tied to your mental health. But let's just kind of get serious for a minute: We have just lived through a very, um, difficult year and many of our children are... our sleep habits have just, you know, gone awry because everybody's been off-schedule. We haven't been at school, routines have been changed, so we really want to focus on getting our kids back on track so that we can get them ready to go back to school and get their sleep and good control.

So let me just go through exactly how much sleep, at what age, people should getting, so you can use that as a reference. First of all, infants, under age 12 months, usually get 12 to 16 hours of sleep. When I give these estimates that does include naps. Toddlers, usually 11 to 14 hours, preschoolers 10 to 13, grade-levels students, nine to 12. And this is really important: teens usually need eight to 10 hours of sleep to be able to do their best. And I think that's really important because I hear, a lot of the time, kids are not getting, teens especially are not getting the sleep that they need. So how do we get our kids kind of back on track? So, first of all, I would sit down with your kids and really think about when do they need to get to bed, setting a bedtime and setting a wake up time, depending upon what's going to happen when they get back to school.

So I would sit down with your kids and talk to them about that: What time do we need to start getting up? And then I would look at what they're doing right now and start to slowly move those times back by 15-minute increments. So for example, if your children are now going to bed at 10, 11, 12, and you need them to set a bedtime at nine o'clock, you can start slowly moving back 15 minutes a night to get them back on track. And then also going ahead and working on getting them up earlier, waking them up maybe 15 minutes a day earlier until they're at the time that you want them to be able to get up for. So that's really important. Also, one thing that I've seen really happening very frequently with our kids is screens, these getting into the bedroom. It's really important to talk to kids about how screens, TVs, need to be off several... you know, 30 minutes to an hour before you actually go to bed. The TVs, the iPad screens, they all emit blue light that really keeps your brain active and makes it much harder for kids to actually fall asleep. So talking to your kids about why you want to move those things out of the room is going to be really important. And that just really leads to setting a very good sleep environment for your kids, that you need to talk to them and start to be consistent about your sleep patterns.

So sleep, I've been asked to talk about both sleep and nutrition, and it's really interesting to me, that sleep, really good sleep, decreases your stress levels, and when your stress levels and your hormone levels are more in balance because you're sleeping well, it's actually really a lot easier for you to also eat healthier and better. So, a lot of times when I'm talking about nutrition with kids, I'm going to talk to them about

something called the 5-2-1-0 rule for healthy living. And the five stands for having your kids eat five fruits and vegetables a day.

So when you're looking at that, five is quite a bit of servings. You have to think about one fruits and vegetables at breakfast, lunch, and dinner, but that also includes more fruits and vegetables at snack time. So that really helps you to realize that you need to have healthy snacks, as opposed to kind of these high-sugary snacks that kids tend to like to have. So I talk to kids about five fruits and vegetables a day. The two stands for less than two hours of screen time a day. So again, that goes back to our screens, really starting to kind of hone back, taking away some of the screen time, talking to them about that. The one stands for one hour of physical activity a day. So getting out, getting sweaty, doing some kind of exercise, playing outside, riding your bike, something to get you active for one hour a day.

And the zero stands for zero sugary drinks. I spent a lot of time talking to my kids about drinking water and milk mainly. Kids tend to get too many calories in sugary drinks. So really talking about cutting back on what they're drinking can really help their nutrition. I also, people also ask me very frequently, what is the, how can I tell if something's nutritious versus non-nutritious? One simple rule to follow is when you're going to the grocery store, always kind of pick foods that are commonly found in the perimeter of the grocery store. That's really where you're going to find your better, um, fruits, vegetables, and meats. When you go down the aisles of the grocery store, those tend to be more of your processed high-sugar-containing foods. So, more foods from the perimeter, less from the inside of the aisles at the grocery store.

Another thing that I really try to get parents to do is to eat more of their meals at home. You're going to have a more nutritious meal with less calories, and you're also probably going to eat less at a time if you're actually eating most of your meals at home. I'm always encouraging, as kids go back to school, to start to get used to having some family dinners again. It's such a great time to meet with your family, discuss your day. So those are things I really want to look forward, have parents start doing again.

One safety thing that I want to talk about before I pass this on is to really be careful about kids walking to school. A lot of times kids now have their iPad, their earbuds in their ears when they're walking. A lot of kids will be walking back to school. Really talk to your kids about making sure when they're walking, not to have their, um, AirPods in, because they will not hear any traffic, it lets them not be as alert to what's going on in the streets. So talking to your kids about being safe when they're walking is going to be really important as they head back to school. Now I'd like to turn over to Dr. Jameel Clark.

Jameel Clark: Well, good afternoon, everyone. I am Jameel Clark, I'm one of the pediatricians at the Norton Children's Medical Group on Dixie. I'll be discussing a little bit about school physicals and sports physicals today. So the American Academy of Pediatrics does recommend yearly wellness exams for children above, uh, who are three years and above. So we do think that the school physicals are a really good time to be able to do that, to be able to make sure we get that yearly physical exam in. During this time, we

will be doing things like, obviously, making sure that their healthcare needs are met. We'll be looking at various health screenings, so for example, some of the children will need to have their CBCs checked to make sure they're not anemic, for example, some children may need to have their cholesterol levels checked at certain ages. So this is a great time for us to be able to do that, for us to be able to make sure that those different parameters are falling in line for what we think. We'll also be able to do different developmental screenings. So we want to make sure that children are developing at an appropriate rate, we want to sure that if there are any delays that we identify them early and get them into their appropriate treatment settings, sometimes best therapies, sometimes counseling, different things that the schools may be able to help with. So we want to know early, and getting in for that yearly physical really does give us a chance to be able to do this.

Also, you know, everyone's been talking about the impact of coronavirus on our children. And we have seen so much, all of my colleagues and I have seen so much more issues with mental health as children have had to be in their quarantines and sometimes not able to be as social as they might like to be. So this is something that's very important. So at the physicals, we also get to do mental health screenings, and this is very, very important. And we're seeing why right now, the way that we haven't seen before, I think, that we really need to be making sure that we're checking children and teenagers for things like anxiety and depression and other mental healthcare things like attention deficit. This is a great time to make sure that your children are assessed and that their mental health is cared for as well.

Obviously, Dr. Bryant was talking to you about vaccines. The school physicals, yearly physicals, are a great time to update vaccines, to get information about what your child may need for the appropriate years. So, very important time, we really recommend that everybody get in with their pediatricians, you know, schedule this, uh, you plan this, make sure you have plenty of time to do it before the school year starts. We think that is very important. And again, it is a recommendation from the Academy of Pediatrics. At this time, they also will allow us to make sure that the school knows about any important food allergy, drug allergy, environmental allergy, things like that, that the school really should be aware of on day one. There are often forms that the schools would like, that for parents and providers to fill out and have ready for them.

So making sure that you work with your pediatrician's office and get those things done is really important. Similarly, there will be some students who require medicines at home, either on a routine, regular – sorry, at school – either at a routine regular basis, or for emergencies, things like an EpiPen for food allergies or an inhaler with albuterol for asthma. Again, the schools really do need to know about that. And knowing about that from day one, it gives your child the best chance at safety and wellness while they're at school. So we really want you to work with your pediatricians on just working on those things. For those students who will participate in sports, obviously, the schools often require sports physicals. So again, we can do those often at the same time we're doing their yearly physical exam.

In some cases we may choose to do it at a different time, but in general, it can be done at the same time. So we think that that's a great time to take care of that. This is one of those things where some preparation on the parent and family end will make things a lot smoother. There's usually a lot of information about family history that they ask on the questionnaire that has to be done before a provider can really sign off on it. We need to know about the child's past medical history or surgical history and things like that, and so there's a screener that goes through those questions and will allow us to be able to do our part, do a thorough exam and make sure that your child will be safe playing sports.

So once again, we really want to encourage folks to let that school physical be a prompt for your yearly physical exam that each child above three needs. And we can also make sure that sports participation, uh, that those forms are complete at those visits as well. And as a good segue from talking about sports, I'll go ahead and give it over to Dr. Kent Walker at this time.

Kent Walker: Thank you, Dr. Clark. My name is Kent Walker, I'm a pediatric orthopedic surgeon with Norton Children's Orthopedics of Louisville, we call it the COOL group. I've been here for about three years, and I also played college soccer. So I have a, I have a lot of experience with injury prevention, not only professionally, but also recreationally. And this is the time of year that we see a lot of what you call overuse injuries. Summer is a time where kids don't really spend a lot of time training. They're more or less going to the pool, they're going on vacation, they're having fun with their family, but now you throw COVID in the mix and things have changed a lot. Over this past, you know, six months or so, we've seen way more overuse injuries than we have in the past. And the biggest reason for that is, if children aren't staying active, as soon as they jump into preseason a lot of these sports it's two-a-days. And so their body goes from not really stressing their muscles and their joints too much, to actually stressing them probably more than they should.

And then one of the biggest things that I like to talk about with children is, how do you warm up appropriately? A lot of people feel that you should go stretch and then you should go play. And actually, that's not really the best way to warm up your muscles. The best way to warm up your muscles is to get a nice sweat, get a good jog in, and then once you have good blood flow to your muscles, that's when you really want to stretch your muscles. 'Cause stretching a stiff muscle can actually increase the risk of injury. And then another thing I like to tell my athletes is, listen to your body. Yes, some kids do have freak accidents where they may tear their ACL, where they may injure themselves on a play, that was unexpected. But the majority of injuries, their body has warned them. Either the first hour of practice, the body tried to tell you, "Hey, something's not right," and they continue to play through it. Or, you know, it was like that last sprint. They just wanted to get that one last shot in, when their body had been warning them all day, like, "Hey, maybe, maybe today's not the day, let's take a break." And one of the things I like to tell them is, after every game or after every practice you should ice. It worked for Michael Jordan, I don't see why it wouldn't work for your children as well.

With kids sitting around and not doing as much during these last 18 months or so, their muscle mass has decreased significantly. Especially in some of these contact or what we call collision sports. I like to call basketball, soccer as contact sports, but collision sports are your football, is your hockey, is your rugby. And those kids haven't, they haven't been using their muscles the way that they had in the past. They may not have been in the gym as well as they have in the past, because maybe the gym wasn't open or, you know, whatever reason that's been. So that's decreased their muscle mass, and that in turn has also increased the risk of injury.

Another thing that's very important is vitamin D. We get the majority of our vitamin D from the sun. Well, if kids haven't been outside and they haven't been doing as much as they have in the past, then their vitamin D is probably low. Vitamin D is very important, not only to, uh, for bone health, but we also know that a good level of vitamin D also helps fight against COVID. So I think that's something that we definitely cannot understate, and I think when we're talking about return to sport physicals and yearly physicals, I think this is a great time to incorporate checking kids, vitamin D's. We have noticed a huge uptake in fractures this year, um, low energy fractures. And whenever I have a patient who has a fracture from a mechanism that I would normally not expect them to break a bone, I always check their vitamin D because that concerns me, their vitamin D may be low.

And then another thing is, kids get hurt and they want to rush back. And I think that is probably the biggest difference between low-level sports and high-level sports. And when I say low-level sports or high-level sports, I don't mean high school versus club. I mean, high-level sports, you get paid to play, in low-level sports you don't get paid to play. And players and athletes that get paid to play do not rush back. If you ever watch LeBron James or Tom Brady, or one of those players, they don't come back and play one quarter of the game. They come back and they play the entire game, and that's because they've taken the necessary steps to increase their stamina, increase their endurance, and make sure they're not injured, as opposed to, "Oh, I'm going to practice for a day or two, and then boom, I'm going to go into a game where the level of play is significantly higher." Everyone knows, you know, if you practice well you play well, but we also know that the game is a significantly higher level than practices. And then also to add to that, I tell patients, you know, if you have an injury going into the season, this is what really concerns me, is they want to be cleared before the season starts. And what I try and explain to them is, the most important part of the season is usually the end of the season. So if you rush to the beginning of the season, when you're not ready, and then you injure yourself and you miss the end of the season, you're really going to be upset that you didn't just take the extra three to four weeks to get back into it.

And if you're, if let's say you're in the first week or two of training, and you notice that you have, you know, your body's telling you maybe you have a little ankle strain or a quadriceps strain. If you take three to four days off and you nurse your body and you ice it, take an anti-inflammatory if needed, the majority of the time, three to four days in kids is plenty of time to heal up whatever ailment or injury they have. Now, if they have, if their knee is twice the size of the other knee, then obviously that's different than just a little strain. But I think, you know, all of this kind of ties in together, and this is

something that has always been an issue with high school and elementary athletes, but now with COVID, it's only going to be compounded even further. So if you, Dr. Frazier was talking about the one hour a day of activity, and so if we follow that one hour rule of activity, I do think that the injury prevention aspect will be greatly improved.

Erica Coghill: Okay, thank you so much, doctors, for your expertise, for sharing with us. We have about 15 minutes for questions. So just another reminder, if you have any questions or you think of any questions over the next 15 minutes, please be sure to leave those questions in the Q&A box and we will ask those. We do have some questions that were emailed to us ahead of this event, so we're going to start with some of those. First question: Is it safe to send kids for in-person classes, and how bad is the Delta variant affecting kids? Dr. Bryant, would you like to take that one?

Kristina Bryant: Sure, I'll start. So, I think it is safe to send kids to school. We know that over the last school year, some school districts, some states, were very successful with in-person school. So, they were successful using mitigation strategies, especially masking. And so, I think, other successful mitigation strategies include good hand washing, potentially improving ventilation. And so, yes, I think school can absolutely be done safely. The American Academy of Pediatrics has really prioritized in-person school. And so, it gets, it's a good idea to go back.

Erica Coghill: And then our next question has to do with masking. This person asks: Do kids have to use N95 masks every day? What about cotton cloth masks, are those recommended for everyday use?

Kristina Bryant: So kids should not be using N95 masks. Really the only people who need to use N95 masks are people who work in healthcare facilities. Kids can absolutely wear a cotton mask.

Erica Coghill: Okay. Our next question, this person says: Myself and my middle-school-aged twin boys are vaccinated, but my 10-year-old daughter is too young. I'm extremely concerned about sending all of them back to school, when the Delta variant is heading straight for us at lightning speed, and one of my children is not protected. It's so frustrating and confusing, and I'm wondering what the medical experts are doing with their own children who are not eligible for the vaccine? Who would like to take that one, anyone? Dr. Bryant, would you like to handle that one?

Kristina Bryant: Yeah, sure. I will confess that my youngest is 26 and vaccinated. But I certainly get this question from friends and, you know, "What do I do with my unvaccinated child?" And I think, so, for the family who sent in the question, it is great that the parent and the two eligible siblings have been vaccinated. So, one thing to do, is to keep COVID out of the house by vaccinating everybody else in the house, because we know COVID can be spread in households. Then, when the 10-year-old is out of the house, mask wearing and good hand hygiene. I think, you know, with the Delta variant spreading, we all need to think carefully about the CDC guidance about wearing a mask even when you're vaccinated. And I will say, I mostly wear a mask when I'm out of the house, even though I've been vaccinated since January.

Erica Coghill: Okay, the next question is: What's the best way to get 14- and 17-year-old boys off the X-Box and to sleep, now that they've been staying up all night and sleeping all day throughout the summer, not really wanting to argue with them, et cetera. Also, what is the best meet-in-the-middle to only have an hour of X-Box during the school week? Dr. Frazier? Would you like to take that one?

Erin Frazier: Yeah, sure. I think this is something I am hearing so frequently right now. Kids are just, uh, it's just been really difficult the last year, and one thing that's been easy for kids to do is to play video games. And with them not having to get up on time and maintain a schedule, they have been staying up a lot later. One thing I find with our teens is that they're really good and they do a whole lot better if you include them in the discussion. So what I would recommend doing is sitting down with your kids and saying, "Okay, we're going back to school. This is the time that you're going to have to get up. They say the doctors recommend eight to 10 hours of sleep. So let's see, if you have to get up at this time, what time do you think you need to go to bed?" So then you're kind of doing those times. And then talk to your kids about, "How many hours do you think that you should be playing on the X-Box a day? What other things do you think you should be doing?" And then you kind of write down what they think. I have found that when I asked my own kids, "How long do you think you should be playing? How many hours of sleep do you think you need? What does that mean," that they give you very reasonable suggestions. So I think sitting down with them, talking through what their day might look like, how do you get them, you know, if you're staying up all night, how would you recommend that we get you back to where you're going to be on this schedule? And then you can bring up the, well, what about 15 minute, you know, increments, what about an hour increment, if it's really late and let them make the decisions with you. And then one thing is, once you have this discussion, write it down so that when they come back and say, or start fighting or, you know, don't want to do it, then you can go back to what you've written down and say, this is the discussion that we had. You know, how do you feel about this? How is this different than what you're telling me now? But really including the kids, the teenagers especially, in the decision-making will make you much more successful.

Erica Coghill: Thank you so much, Dr. Frazier. Our next question is related to COVID-19 vaccinations. The same parent who asked the question to you, Dr. Frazier, is very on the fence about the COVID-19 vaccination for her children. Dr. Bryant, would you like to answer this one? How should she outweigh the good and the bad?

Kristina Bryant: Well, in others on the call, particularly Dr. Clark and Dr. Frazier, I think you're having these discussions in your office. Do you all want to go first, and when you have that parent in your office, what do you say?

Jameel Clark: Well, you know, I often try to talk with them a little bit about making sure we understand some of what's being talked about out there in the media. Understand what are, you know, try to be able to fish out what are those things that just are not really good sources of information. And then I try to offer as much good information as I can in the clinic setting, um, really want to talk a little bit about understanding risk a little bit. I think that sometimes we're not all very good at assessing risk when it comes to these

things. And so really helping parents understand like, yes, you know, just because it seems like some people are saying this doesn't seem to affect children as much as it does, that's not exactly the real story there. And if we have a safe vaccine that allows us to prevent even those rare infections that seem like they are most likely to lead to hospitalization for kids, we want to do that. We want to do everything we can to lower the chances, that anybody, that any of our kids need to be hospitalized with COVID-19.

Erin Frazier: Yeah, I agree exactly with what you're saying. Another thing that I say is that, you know, I'm blessed that my youngest child just turned 12, um, a couple months, like several weeks ago. So he turned 12 on Saturday, he got his first COVID vaccine on Wednesday. And I do spend a lot of time saying that all the physicians that I know have their kids vaccinated, all the physicians I know are vaccinated. You know, and spending a lot of time saying I wouldn't do anything to my children that I wouldn't recommend for your kids. And I do spend a lot of time trying to talk about the publicity that they may have heard, especially about infertility. And I do think that there's a question about myocarditis, and I have heard information – and Dr. Bryant, you can correct me if I'm wrong – that there maybe has been very rare episodes of myocarditis, and that they are very easily and quickly resolved. And I do spend a lot of time saying that, you know, the worries that you have about that vaccine, I mean, you're getting, um, your body is going to make the protein that is in the COVID virus. So you're going to get less exposure in the vaccine than actually getting natural disease. And so spending a lot time saying all the worries that you have are actually going to be higher if you get the natural disease.

Erica Coghill: Thank you all very much. Our next question, we're going to now address some of these live questions coming through in our Q&A box: What is considered long-term when we talk about long-term effects of COVID-19? I wouldn't consider seven months to be long-term says the person asking this question.

Kristina Bryant: Yes. So, for long COVID, there are a couple of definitions. And so, studies measure how many people have symptoms at four weeks, and 12 weeks. You know, I wonder though, seven months I think *is* a long time for a child or an adult not to feel well, right? A child with long COVID, it is probably deconditioned, if they're athletes, I think we've all seen those reports in the media about kids who were athletes, they were dancers, they were very active and then they can't do that anymore. Seven months is a – Dr. Walker can chime in – that's a long time to be away from your sport, and to not feel like yourself. So minimally, four weeks. And we're still really learning what long COVID means for kids. We have seen about 50 kids referred to our long-term COVID clinic, or long COVID clinic, thus far. And it appears that they're all getting better, but we just don't know enough about this in kids.

Erica Coghill: Okay. Now we have, um, a couple of non-COVID-19 related questions. How often should children have vision checks? Who would like to take that one?

Jameel Clark: I'll take that one. So, you know, when we look at getting these school physicals done, often times, the school physicals would like to have some check of vision at that time. So, on a yearly basis is a great way to think about that. So yes, we often have our

patients screen their vision in the office to know if there's anything to be concerned about, and they'll see an optometrist as well.

Erica Coghill: Great. Thank you so much, Dr. Clark. Um, next questioner says: My seven-year-old son complains of leg pain at the end of the busy day. Pediatrician says growing pains. What's the best at-home treatment to manage the pain?

Kent Walker: I can take that. So, growing pains, what we think of as growing pains is, the bone grows faster than the muscles, grows faster than the tendons. But what happens is the muscles are attached at the bone interface. And so you can get pain where the muscle pulls on it. And after a long day, the muscles are fatigued, and that's why growing pains are usually at night. But one of the biggest things that helps is hydration, and then getting a good amount of electrolytes. Then, we know that potassium helps, and we also know that magnesium helps as well. So if you go back to your 5-2-1, five fruits and vegetable servings, as well as good hydration, should help with that. Now, I also – it's easy for me to say not to worry about it, but it's not my child that's waking up in the middle of night crying with leg pain. So I do understand that it is very stressful at times.

Erica Coghill: Thank you, Dr. Walker. Do we have an anticipated timeframe for children under 12 to be eligible for the COVID-19 vaccine?

Kristina Bryant: You know, I think we really don't. I think the earliest will be late fall, early winter, but we have to follow the science. Right? So, we have to have the results of the clinical trials, and then the CDC's advisory committee on immunization practices has to really look at those data, look at the burden of disease in kids, and make a recommendation. So that's my guess, not before, I'm guessing, early winter.

Erica Coghill: Thank you. This next question is a great one, I know many children have struggled with this: What can you recommend for middle schoolers who are headed back to in-person school, who have developed social anxiety over the past year, um, and have already seen the pediatrician? Any suggestions? Who would like to take that one? Dr. Clark?

Jameel Clark: Yes, I do think that we're going to see some children who, uh, have gotten used to not being in social situations as much as they might have been. I think that, you know, with school starting, this might be a good time beforehand to start getting some opportunities for success, getting together in small groups with people that they are comfortable with, having to sort of, you know, flex those social skills muscles a little bit, so that they kind of feel good about getting out, being around people. Of course taking, uh, you know, the proper precautions is important. But that may also help them feel comfortable if they know, "Hey, I'm going to be in a situation where folks will be taking precautions as well," because I have seen some kids who are a little bit nervous about going back with COVID, um, with COVID being out there.

So I think that's one thing. And of course, if things get very difficult, if it is very difficult for a child, a teenager, a middle-schooler, to get up and go to school because of the social anxiety issues, they really may need to work with a counselor to help with this issue. And I think that we need to be very open to that. I think we need to de-stigmatize,

in general, mental health issues, that would really support these kids as they come forward with these concerns.

Erica Coghill: Thank you so much, Dr. Clark. We have time for just one – well actually, we're right at 12:45, so I'm sorry, I didn't mean to get your hopes up, but we had a lot of great questions come through today. So thank you for your engagement and for joining with us, Dr. Walker, Frazier, Bryant, and Clark, thank you so very much for answering all of these questions today, for sharing your expertise. We very much appreciate it.

Erin Frazier: Erica, can I say one thing? I just want to put a plug in for a podcast that Tracy Morrison and I have done, from Prevention and Wellness. It's called Parenting With You, and we actually have a couple of episodes on some of these questions, we have one on nutrition, one on immunization and immunization hesitancy, and also mental health during the COVID-19 pandemic. I just want to put a plug in for that, Parenting With You is a podcast from Norton Children's.

Erica Coghill: And how can they find it?

Erin Frazier: It's downloadable, I always use that purple icon, just anywhere you can get podcasts downloaded.

Erica Coghill: Great. Thank you so much. All right. Um, well that's all the time we have today. Again, I want to thank you all for joining us and for Engaging. Also, if you've not yet done so, please be sure to visit engage.nortonhealthcare.org and register, and check out all of the useful information there, including upcoming speakers. Everyone, have a wonderful day.