Autism, ADHD, And Other Neurodevelopmental Pediatric Disorders Transcript

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Introduction to Neurodevelopmental Disorders

One of the mystery things about tricks and children is neurodevelopmental disorders such as autism or ADHD, dyslexia, dysgraphia, pans, pandas. And whether or not you've heard of these before, we can always appreciate that in children, things are so delicate, the brains are so delicate that we really have to optimize their health in every situation.

So on this section, I want to talk to Doctor Paula Crops. That was one of my dear friends in woodlands, Texas. And she is, the absolute leader when it comes to, looking at rare diseases and neurodevelopment disorders in children.

So, doctor, crop stand, graduated in 1990 from the University of Texas and San Antonio, and, she's completed a pediatric internship and residency at the William Beaumont Army Medical Center in El Paso, Texas.

And she is board certified in, Pediatrics, is a fellow of the American Academy of Pediatrics. She served as a US Army pediatrician at Fort Hood, then relocated to The Woodlands, Texas in 95.

She's since worked in a general pediatric population in functional medicine, including Texas Children's, Texas, in children capacities in children's urgent care.

She's a certified practitioner. A functional medicine that is, functional medicine is one of the few board certified pediatricians in the world who are actually certified in functional medicine.

She's an expert concerning immune mediated neurological function disorders such as Pans and Pandas. And, Texas Governor Greg Abbott, appointed to be a member of the pediatric Onset Neuropsychiatric Syndrome Advisory Council.

So the council advises the commission and Texas legislation on research and diagnosis and treatment, education related to pediatric acute onset neuropsychiatric syndromes.

And so her practice, which is hope for healing, is a wonderful practice that we refer patients to here in Texas. And I can't wait to introduce her to talk about neurodevelopmental disorders.

Listen, I'm so happy that you came on and agreed to talk with me about neurodevelopmental disorders in children. I think it's a very important topic and one of the most misunderstood topics, I think, ever.

So, so happy you're here. Welcome to the show. Great. Thanks for inviting me. I really appreciate it. Yeah. So let's get started.

Defining Normal Development and Parent Concerns

So let's, let's let's just define what a neural developmental disorder is. Let's just kind of start there. How do you define a neural development of disorder.

And what are the other disorders they encompass. Yeah. So when I talk to parents because I am a pediatrician, but I also see adults, any thing that prevents normal developmental progression.

So typical things that people hear about are A. D. D., ADHD, dyslexia, autism, dysgraphia, dyscalculia, learning disabilities. But also as far as the mood spectrum is concerned, anxiety, obsessive compulsive behavior, that interferes with the kiddo getting on with activities of daily living.

Like making their bed, packing their lunch, getting dressed in the morning. So those that's kind of a broad, look at neurodevelopmental disorders. You know, as a parent of three young daughters, I, I find it really hard to discern, like, what's normal behavior?

My kid, or what's normal for them. And is there a spectrum when it becomes like a disease or pathological? And it's so hard as a parent because, you know, it's like I look at my children and I don't want them to, like, be labeled something, but at the same time, I want them to have hope.

Like, how does the parent kind of draw the line in that one? Yeah, that's a great question too. Like, I'm the mom of four kids, 16 to almost 28, a grandma of two.

And if you have your firstborn, you're like, is this normal? Is this not normal? So. And then we also look at the temperament of our children. Are they extroverts, introverts and their learning styles?

How do they learn? Do they learn by looking, visual? Do they learn by hearing? Are they kinesthetic? Do they have to move around? Usually it's multisensory, but up until the last couple years, the, developmental milestones published by the American Academy of Pediatrics and the CDC, I believe, were spot on.

You get a bell curve, meaning you've got kids that are developmentally advanced and you have kids that are at the bottom of the bell curve, but they're still considered normal.

So if you have a kiddo who's really tall before they walk and if they have a large head, your center of gravity is high. So when they walk and they crawl, it's going to be different.

And when they sit up, then a little tiny, compact person who's lower on the growth curve. So I found it interesting that just a few years ago that they, they, they changed the developmental milestones, which is really disturbing because it goes along with our epidemic of neurodegenerative disorders and neurodevelopmental disorders.

So the old milestones are are a pretty good look at what's normal. But we have to become a student of our children. Everybody's different and very unique.

Yeah. And it's so hard these days because there's just so much information on the internet. Right? Yeah. And, that's how people. You get what you Google for.

Yes. And googling is a little scary at times, and you can't necessarily believe everything you see. So yeah. Yeah, just a lot of lot of information out there.

Genetics, Testing, and Modifiable Risk Factors

It's it's very overwhelming, especially being a parent these days. And so, let's let's talk about the, this concept of nature versus nurture. Right. So there's a lot of kids with, you know, and, and stuff like that.

And they're like, oh, you know, that's this way as well. Or granddad's a grandma is this way, right. This genetic, this genetics play important part into this.

Or is it more something that's in the environmental side? Great question. Absolutely. Genetics plays a huge key in that because our children are a result of us.

The apple doesn't fall far from the tree, but we tend to repeat it the way that we were parented and what we're familiar and that's hardwired into our brain.

And so learning new ways of interacting, learning new ways to parent. And in many ways, it's breaking free of patterns that are actually damaging and not nourishing to our bodies and our emotional and mental and spiritual health.

Okay, so I'm hearing you is like genetics, but also there's patterns that we have to recognize in raising children as well, right? Yeah. And so, but let's talk about genetics.

Is genetics something you can, you can, you can test for. Are these things that you see with your own patients? Yeah. You know, I'm very passionate about genetics because it's what changed my life as a doctor, as a mom.

And I'm not the same person I was 20 years ago. And so when I talk about genetics, you can actually do that relatively inexpensively, but I'm not talking about 23.

In me in ancestry. I'm talking about a company that falls within the lines of, HIPAA privacy. And it's clear certified. And you can do a little cheek swab on a baby that's 2 or 3 days old, and it gives you actionable intelligence about how to prevent illness going forward.

And then if your child is suffering from a neurodevelopmental challenge or issue, you can halt the progression, help them recover, and use this actionable intelligence to pull you back into balance and your child back into balance.

This is a test that anyone could order, or they go through like a like a functional medicine pediatrician to to order. Yeah. I kind of designed my own panel, and as a pediatrician, I kind of took away the extraneous stuff.

And, I use a particular company that I have a lot of faith in, and I just kind of narrowed it down to the nitty gritty. What do I need to help a parent feel equipped to help set their child on a positive trajectory?

Right. Because I've seen a lot of these genetic panels and they can be overwhelming the amount of data as well. And sometimes some of it matters and some of it actually doesn't.

And sometimes the what the what they actually test for it. It may even change year after year. And so you have to be kind of updated on it. Yeah. And so it's like kind of pull your hair out sometimes.

That's that's for sure. So what are the areas let's, let's talk about some specific things we can learn from these genetic tests. Like what can we actually learn from it and how it can kind of modulate, based on these tests.

Yeah. You bet. That's a great question to so what really matters. So you hear people talk about genetics and I like to look at something called non epigenetic genetically modifiable snips or genetic variants.

And that means they are what they are. They're hardwired. And if you don't have them you're dead. So it's common things. We're not looking for syndromes deletions chromosomal abnormalities.

That's not what we're looking for. We're looking for systems that we can modulate. So several different systems that I looked at are something called neurotrophic or neurotrophic.

What's that mean? Neuro meaning neurological in the brain or the central nervous system. Trophic or trophic means growth. So there's several different areas there.

Then the next area and it's the driver of all illness is inflammation. So we have a lot of inflammation. So when we talk about inflammation what is that something that's hot red swollen or painful.

But when your child has a headache or they're angry or they can't focus, they can't unzip their brain and say, mom and dad, my brain is hot, red, angry and swollen.

They can just say, I got a headache or I can't remember that. Or they look at you like a deer in the headlights. And then so that's internal and then external is, you know what we as functional medicine doctors talk about so much modifiable lifestyle factors.

So it's the low hanging fruit, something that you can change so much by removing inflammatory things from your diet or getting out of your home. That was water damaged here in Houston during Harvey.

So it's that and then, a topic that I'm sure on the Brain Summit is going to be talked about a lot is autophagy, which I like to tell parents. It's a way to clean out each individual cell in their body.

It's like microscopic detoxification. And when I talk about detoxification, I tell parents it's not about pooping, peeing and sweating. It's about how their liver works and how much glutathione, which is the body's master.

Antioch's and how it's made and where we need to modify it.

Autophagy, Inflammation, and Cellular Cleanup

Then a pathway called methylation, which is getting vitamin B nine into the right places of the body in the right amount at the right time, and then mitochondrial function.

And I throw in some of the dietary things like dairy and gluten and their vitamin D status. So all of that comes on a little cheek swab that you can do on a baby that's 2 or 3 days old.

And that's the most exciting thing. So what we've technology's come a long way. It seems like, right, to use formation to make some pretty key decisions in, in child development.

Right. And so let's let's go back to this concept of autophagy. So the way I think about it, you know auto is self phase you means eating away. So taking away some of the damage in our body.

There's so many genes that encode for that. And also not only that there's other things such as well in the adult population and I don't see pediatrics.

I don't know much, but we utilize a lot of stuff like caloric restriction and intermittent fasting and stuff like that. Are those things also applicable to to some children?

To some degree, yes. You know, if you think about a baby, a kiddo will sleep 10 to 12 hours. So automatically they're undergoing some autophagy. And I know there are others, but we call it the growing fat system.

It's the ability to clean up the brain. And so in my clinic I look at about eight six different genes. But on my newborn panel, which I do even on teenagers and adults, I really focus on about three.

And so I'll just break that down a little bit, kind of the way I talk to parents about it. Every cell in our body, except for potentially red blood cells, has these little pockets called autophagosomes.

And like you said, it's self-heating or self-cleaning. And in that little pocket, when a cell undergoes all these functions, all the debris goes to that little pocket, that autophagosome.

And we have hydrogen peroxide. Then something called lipid peroxides cleans it all up. All the garbage is then put out into the bloodstream and it goes to the liver, the kidneys, the skin.

And you sweat it out, pee it out, poop it out. Then ideally if if not, then the good recycled use parts go back to the rest of the cell to be used again.

So what optimized is that? In my population of kiddos, I like to use, something called de chiro inositol. And the form that I use doesn't really have anything else added into it.

And I use more for children who have speech and language delay and for autistic children, and I use less for healthy children. But we've identified these roadblocks, and we just want to make our way around this roadblock and help them have what they need to clean their cells out and get the garbage out.

So, it's kind of tasteless, a little sweet, and you can literally open it up and mix it with a little water. You can mix it with breast milk. You can mix it with applesauce or choline and nondairy yogurt.

And the parents can give that twice a day. And it helps these kids not build up debris and garbage that when they're 45 or 50 or 60 years old presenting with dementia, their parents have intervened and prevented the development of that.

So, you know, I like to think too is what do you do when you have a burning house? First you put the fire out, then you go in and you clean the house out.

So autophagy is cleaning the house out? Yeah, I put the fire out before you walk in. That's right. You put it out. Yeah. A fire in this case I guess will be inflammation.

So you take away a lot of things that cause inflammation, right? The mole toxins, stuff like that. Air filters if you have it, food, plastics, etc., etc..

And then you go in and do the do do the clean out. So that's that's a great concept. So let me, let me ask you, this and this is probably the most asked, thing by parents, especially when it comes to, my practice is that, are these neurodevelopmental disorders like dyslexia and autism and ADHD?

Are they all individual things by themselves, or do they are they all like on the on the spectrum? What do you think? I think they're on a spectrum. And there's not one person in the world that is like anyone else.

So we can never take yeah, we can never take a cookie cutter approach. So the way Johnny with ADHD shows up doesn't mean that Susie with ADHD needs the same amount of Concerta, Ritalin, you know, to change things.

So we need to dig deep, find out what the areas of imbalance and dysfunction are and all at the same time, but do it in an intelligent sequence so as not to overwhelm the parents, because it starts with mom and dad and not to overwhelm the child's body.

Because, you know, let's face it, we can't be doing three different protocols all at the same time.

Spectrum of Disorders and Hope for Improvement

You have to start with inflammation. Like you said, put the fire out, then clean the house out. And there's a lot of moving parts. So I just like as parents, you know, so many times we feel guilty.

We're like, well, I got to do this. I got to do that. And that doesn't help anyone because just thinking about that is inflammatory. So I'm just like, breathe, breathe started step one.

And just like you, we have health coaches that help our patients unpack this and implement this. So, going back to the original question, I believe that neurodevelopmental disorders are all on a spectrum, and I believe that you can help every single one of them.

And I believe that you can return function. I have children in my practice that no longer have the diagnosis of autism, and I've tried many adhere with some of those parents.

And you don't hear about that. They're just like, okay, go ABA therapy. It is what it is. Just accept it and move on. And there's nothing you can do, which is not true.

There's always something that you can do to modify the outcomes and restore balance. That's that's great. And to hear that it's pretty inspiring because we don't hear about it like this.

Right. And so like is it every case is different. You know some cases there's no reversibility. Just like, you know, what we do in Alzheimer's, dementia and Parkinson's practice, in some cases there's a huge amount of reversibility in some cases there aren't.

But you know, there's there's always should be some level of hope, right. Yeah. I, I I'm sorry, I Chang I didn't mean

to interrupt you. So go ahead. I, I think one thing as a parent, the last thing you need to hear is there's no hope and there's nothing you can do.

Yeah. With children, there's always a way to turn it around. The degree of function that returns, you know, it's it's only as, strong and as positive as what the parents are willing to put into it.

And the cards that a person's been dealt genetically and how you can get around those roadblocks. Right? Yeah. It's it's such a hodgepodge of different things.

And sometimes, you know, there's parents out there who say, hey, I'm not doing enough for my child. But always remember, there's a huge genetic component to it as well.

And every person's different. So doesn't necessarily need to have a blame, one way or another. That's not why I'm saying this is because, you know, I deal more with the children taking care of the parents because they're much older, you know, plus 40 years on top of that.

Right? And we're seeing children try to take care of the parents and the children, always having the guilt of, I'm not, you know, they already have children of their own plus or trying to take care of the parents.

So they're kind of stuck in the middle and they're like, I'm not doing enough. I'm like, you know what? Sometimes genetics play a big part into this, right?

But there's things that we can modify. We just have to keep on learning how to do it. So speaking of which, I'm gonna transition to talking. This is something that you mentioned a little bit earlier is that, sometimes, negative thoughts or, or Doctor Daniel.

Amy likes to call it automatic negative thoughts can actually create inflammation, like physical inflammation on the brain. So, can you just kind of dive a little bit into how thought processes, traumas and patterns and thought patterns can actually affect, someone's physical outcome when it comes to, neurotransmitter disorders?

Yeah, absolutely. You know, there's a great book written by a physician called The Body Keep Score. And when when people think about the emotional, mental, spiritual, physical, sexual abuse that they've experienced in their life, we tend to compartmentalize it.

And people compensate by their identity is finding what they do, what they have, and what their title is. And I think that becoming self-aware, I think everybody needs therapy.

I think everyone needs someone to walk along their journey of life with them if they're willing to humble themselves and be teachable and look into those things from the past that cause our heart to stop.

And so when we think about when I think about trauma and children and parenting, so just like you, you're dealing with adults caring for adults that have their own children.

We see that in our practice, too. But for me, I care for the parents who are taking care of a child. With the neurodevelopmental challenge wide spectrum from Johnny's in first grade, he can't keep still and he keeps getting in trouble.

And his suffering from I'm dumb, I'm stupid, I'm a defect.

Trauma, Negative Thoughts, and Parenting

So those negative thoughts, I think that as a parent, number one, we have to evaluate where we're at and what we heard as a child and then how we're showing up as a parent.

And so part of the thing that I do, pediatrics is 80% interacting with the parents and motivational interviewing and

breathing life until mom and dad, who are tired and broken, they're both working jobs.

They've got three kids. They're trying to make, you know, it's like, how can I get the dairy out of my kid's diet? Or how can I get the gluten out? And how can I incorporate movement in, how can I incorporate stimulating the vagus nerve so my kid's not anxious all the time?

So your original question about trauma and automatic negative thoughts? I think as parents they need to look at what their positive character strengths are.

And that's where I think that health coaches play a huge piece, and they need to remember not to repeat out loud, like that was a stupid thing to do to catch them self.

And because what does the child hear? They hear I'm stupid. It's okay to correct a child, and if it's something life threatening, we're going to say no and grab them and move.

But it's all about how we phrase our questions and how we talk to ourselves and change that inner tape. I'm dumb. I'm stupid. I'm a crappy parent. Why is this happening to, you know, I'm an intelligent human being and I can learn.

And I love my children. And I think the biggest thing to help us with our trauma and our negative thoughts. And you've said this is gratitude. It's we have little gratitude books in every exam room, one for mom and dad and one for children.

And it's like, hey, what are you thankful for? And the biggest thing is, is I have a Potty Diego coupon and I have indoor plumbing. And, I have a brother that I get to play with.

You know, it's just picking out little things. And so it's changing our mindset and, I think in functional medicine, we're all aware of, if a person is in pre contemplation, they're thinking, I'm going to do this.

They have they want to do something versus they're ready and I can do something. So it's moving them to the place where they know that I can. And these are my tools to get there.

So it's all about creating an intelligence sequence. And breaking it down into little pieces. And when it comes to our parenting, parenting is a mess.

It's just messy and things happen. And Grandparenting is like that too. But now that I'm a grandparent, I can go, this is okay. I'm I'm right. You know, I'm okay with this. I get to give them that.

But, it's just finding joy in the midst of that every day and being present and not thinking about your to do lists like we do as doctors. So there you have it. There's my dump.

That's such those are such great points. And, it's all the things that we've talked about that's so complex within our conversation. That's probably the most important part, is finding the gratitude and joy.

Despite anything that comes. And you know what? It's, you know, life is not supposed to be great all the time, you know, because great is relative. It's only something that's not so great.

It's always a dance. It's always a dance between fears and passions. And so that's what life really is. And what we have to recognize that so that we can heal ourselves and then can heal.

We can help the people around us, heal as well. So one of the that's a really, really great advice. So let's talk about some, some, practical tips, some practical things that parents can do to really start the process of rebalancing their child's immune systems and neurological symptoms.

What are some of the victims? Well, at least here in Houston, with our history of hurricanes, one of the things when I think about external inflammation is making sure that the inside of their house and the wall cavities of their home

are not moldy or water damaged.

So that's that's one thing. But the biggest needle mover that can correct inattentiveness and focus in children is by putting quality food into their body.

So and that doesn't people think, oh, it costs so much to eat clean. Actually, it doesn't cost as much as driving through a fast food joint. So I've got a family there going, taking their child to ABA therapy, and they're like, I don't have the money to do this test.

And I'm like, well, let's break down the finances. Or the health coach does this. And they found out that they're using $364 a month going through fast food that's inflammatory on their way to therapy, negating the effects of therapy.

So while eating real food.

Practical Steps for Rebalancing Health

So by that I mean, look at environmental working group called EWG talk. Look at the dirty Dozen clean 15. You don't have to buy all organic. Shop the periphery to the grocery store, pick real fruits and vegetables and and change them up seasonally.

Organic chicken, beef, bison, wild cat salmon. And if if you're not a big meat eater, which I'm not, I use a lot of quinoa that I soak for 48 hours. Lentils and legumes.

I soak for 48 hours to kind of sprout them and break down the lectins, which are inflammatory. And that's real food. So getting enough protein, carb and fat that's clean.

So that's that's number one. And that's the most important thing a parent can do is put good food in because garbage in, garbage out and the garbage out.

Is there no developmental challenges. Number number two, I think is reassuring that your child has quality sleep. And when we look at, yeah, there's, so many children have tongue ties, enlarged adenoids and, and tonsils are tissue and they have a, a jaw that is not appropriate.

They're not structurally aligned. So they don't create a good airway. So that's something that we look at on a nutritional physical exam and refer to some amazing practitioners in the Houston area and, making their way, getting your kids grounding.

And by grounding I mean barefoot on concrete, not asphalt, dirt or grass for 15 minutes a day when the weather is good and get them moving. And that can be sidewalk chalk, a great way to calm them down if they're having a temper tantrum or a fight is turn on loud music, dance and sing out loud because singing stimulates our vagus nerve, which calms down and then blowing bubbles.

And then, you know, if they have relationships with other children that pull them into activities and are saying things that are not life giving, will choose your company.

When you hang out with girls, you become like them. And then lastly, stress. I find that parents are trying to keep up with the Joneses and they are running their kids to swimming and taekwondo and Boy Scouts and art lessons.

I would minimize the activities and try to bring it home a little bit and change that into game night or time that you unplug. And the last two modifiable lifestyle factors that we've added to our team is time and finances.

And our health coaches kind of take a deep dive, and you've got to take those moments with your kids, and invest. And that's why I think precision genetic search is so important, because you can be proactive and prevent the onset, and you can have that information and stop it and pull it back.

So that's what I recommend to move the needle. Those those are really great points. And as you're talking, I'm thinking, hey, I'm having a checklist for myself.

I think I think we're I think we're on the right track, you know. Yeah, I know, well, the what you said, earlier is about, the grounding. My gosh. Walking barefoot onto the concrete.

But that's an interesting one. Like what? Where did that come from? Yeah. You know, that's a really great question. And actually, when I heard about it, there is like a whole website and a book and there's like 15 to 20,000 different studies published about the influence of electromagnetic fields in our world and then how we can ground ourselves.

So if you think about how the earth is that struck by lightning, and in our daily lives we are built up trauma balls just driving on the roads in Houston or anywhere.

So when we stand on the earth, concrete, dirt or grass barefoot, I'm like, if you have a balcony and you live in an apartment, there's concrete that's not going to work.

It's got to be touching the earth. It helps pull some of that acidity, an abnormal electrical charge, into the Earth. That's why walking along a beach is so good for you.

The salt, the water and and the ground.

Grounding, Contact Information, and Closing

And, like this morning, I was sitting on my porch, barefoot, you know, drinking like. Well, there's been such an amazing discussion with you. And I wish we can talk forever.

But we can't. But how do people find you? What's your website? How can people find you on social media? Right. Our website is get get the number to the root.com, get to the root.com.

And, I have an amazing team. We've talked about health coaching, but, other and we treat wounded Tim. But I am focusing on these kiddos that are seeing numerous subspecialists getting back to what I'm passionate about.

So get to the root.com. And we have social media sites to Instagram, Facebook, etc. and thanks so much. And I think for parents just to remember, look at yourself, but tell your children you are loved.

You are kind and the world is a better place because you're in it. And, that's just really important. And I say that to some of these kids too, because so, so many times if they're coming to see me, they're like, something must be wrong with me.

And I'm like, you're an amazing creation. We're just trying to get you to where you feel good and you're happy and you have a lot of joy, and you're. I can't wait to see what the world is like when you're older.

And I'm treating grandkids of patients now to not grandkids, children of former patients when I moved to Houston. So it's really exciting. Well that's amazing.

Such a rewarding, rewarding journey for you. So awesome. Well, thank you for being on. Appreciate it. We'll close it out here. Thank you. Thank you very much. We.