The Neurotransmitter Piece Everyone Misses in ADHD Transcript

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Introduction to the ADHD Series Wrap-Up

Welcome back to the Get to the Root podcast, the podcast where we uncover the deeper causes behind everyday health challenges. Today we're wrapping up the ADHD series and taking a look at another piece of the puzzle most people overlook, neurotransmitters.

Dr. Paula Krebsat explains how brain chemistry like dopamine and glutamate can affect focus, mood and energy, and why balance is key, and how genetics and diet can make a big difference.

If you ever wondered whether ADHD symptoms may be tied to something deeper than behavior alone, this episode will give you fresh insight and practical steps to help you and your child thrive.

This podcast is for education and encouragement. Please consult your health provider for personalized medical advice. Now a note from Dr. K about our sponsor.

At Health Pre-Healing, we believe knowledge is power, especially when it's in your DNA. That's why we use the custom SNP panels developed in partnership with Legrand to help get to the root of our patients' health concerns.

Today we're highlighting the neurotransmitter panel if you're struggling with ADD, ADHD, depression, or anxiety. This panel looks at excitatory and calming neurotransmitters, providing a comprehensive look at how your brain and nervous system is wired.

Sponsor Message and Neurotransmitter Panel

We're grateful for our partnership with Begron and their sponsorship of this podcast, which allows us to personalize care from the inside out. To learn more, check out the link in our show notes.

So we have had the pleasure of talking about sleep and how sleep can affect ADHD symptoms. And then we've also spoken a lot about how nutrition and how to do things, which are like really just the pivotal points you're going to hear us talk about with almost every condition that we talk about, if not every condition we talk about.

But there is this other multi-leveled component and that is the neurotransmitters. So Dr. K, before we really talk about neurotransmitters as it compares to like the ADHD symptoms, can you talk a little bit about what neurotransmitters are and what they do for the body in general?

Yeah, so transmit implies communication. Neuro implies the brain and our nerves. So our nervous system communicates using very small little molecules called neurotransmitters.

We have excitatory neurotransmitters and we have calming neurotransmitters. And we've all experienced the gamut of those. Now at the crux of the balance between the excitatory and the calming neurotransmitters is dopamine.

What Neurotransmitters Do

And dopamine is a neurotransmitter itself that helps us with short-term memory, focus, concentration, organizational skills, sleep stability, mood stability, and hormone regulation.

That's all the neurotransmitters side of the house of what dopamine does. But it also helps us with our immune system, our mitochondria, and just a lot of other functions.

So having adequate dopamine production and balanced neurotransmitters is imperative for a person to show up

and to be able to perform. And when you've been given the label of ADD, with or without hyperactivity, that's where the money's at.

What happens if someone has either too little or too much dopamine? Because you keep talking about this balance. So I'm assuming really high dopamine all the time wouldn't be good, just as much as like no dopamine wouldn't be good.

So can we talk about what that looks like? Yeah so people who are adrenaline junkies are those that are looking for a dopamine hit and they may be people that are risk takers who like to jump out of planes and they're just looking for more dopamine production and if you don't make enough dopamine you may be very apathetic and very indecisive.

And, you know, it's such a balance because when we think about autistic children who are stimming and moving and doing behaviors, they may be dopamine-seeking, but they may not have enough dopamine.

that's made in their bodies. So it's really, you want to find a balance where you're not agitated, but you're not sad and depressed and apathetic, but you're excited about life, but you're also content.

And so it's a balance.

Dopamine Balance and Symptoms

It really is. I love that, especially because we don't want to live in extremes, right? We want to live in this balance, and though our bodies will create new homeostasis, we want to make sure that the homeostasis is one of optimization, right?

So we want to make sure that we're optimal. Okay, so you talked about the neurotransmitters, how they work. and what goes into that process. But ultimately, can we talk a little bit about like, even if we're doing all the right things and eating all the right things, how maybe genetically our body doesn't have a leg to stand on sometimes when it comes to the production of these neurotransmitters.

Yeah, I think when we think about neurotransmitters, almost inevitably in girls and very, very commonly in boys that have been given the official diagnosis of ADD, ADHD, that they have an inability to break down one specific neurotransmitter called glutamate.

Glutamate is an excitatory neurotransmitter. And when you can't break it down, it makes you agitated. It makes you moving around in your brain from one thing to the next.

It's very difficult to focus on one task and complete it and to organize your thoughts. It also causes the body. You want to move a lot. But in girls, They will just be out in La La Land.

They'll be compliant and sweet and kind, but they'll be out there thinking about something else and they truly did not hear or listen to anything that was taking place in class.

And they're sweet and they're compliant. But not necessarily, you know, it just depends.

Genetics, Glutamate, and Inattention

But they're more prone to be missed because they have all this glutamate coursing through their brain and they're just showing up and it's the difference with the female brain, very inattentive.

Okay. And so how does one find out if, like, if they have a deficiency or they have maybe a susceptibility to having those deficiencies? We always recommend doing a panel.

So it's a genetic panel. It's called the neurotransmitter panel. And I would dovetail that with another one called

neurotropic because tropic or tropic means regenerative and neuro implies brain.

So when we think about memories, But from a neurotransmitter standpoint, this GAD1, there's two of them. It stands for glutamic acid decarboxylase 1. If either one of those shows up on the genetic panel, then there are ways to modulate that particular gene.

We ask people to partner with us. It does. We use something called demantadine for that. It is a prescription. But there are also some nutraceutical and herbal ways to modulate that.

But in little boys, the way that shows up, and even in little girls, you know, you talk to them about their day and it's like after lunch, about an hour after lunch, their brain just checks out and they're just not learning what's being talked about.

But then when they get home to burn off all that glutamate, they're running around They may ride their bike. They may jump up and down. They may kick a soccer ball around and go, go, go, go, go, go, go, go, go until they literally fall into bed at night.

And it's their body. showing them, I need to burn off all this glutamate or I won't be able to go to sleep. If they can't burn it all off, they may say they lay in bed at night and they can't go to sleep and they keep thinking about things, playing them over and over in their brain.

And that's a whole other topic of discussion about what they're thinking about. But when you have too much glutamate, it's that inattentiveness, but also that movement to burn it off.

And sometimes making stupid choices. There you go.

Testing and Modulating Neurotransmitters

Well, and again, I think what I like about what you're saying is that this is so multi-leveled in the sense of where we would call the ADHD child running and doing, it's their body trying to do what it needs to do to get out, to be able to get into a rest mode.

So their body is actually responding in a way that is helpful in the sense of it needs to burn it out, but it just doesn't know that it doesn't have to be at that level.

And I think that that's really important to go. It's like, oh, no, they're not doing this intentionally. Their body is actually trying to help them. It just doesn't know how to help them best, which is why we have conversations like this on how we can support that body.

So something that is actually interesting about glutamate that I'd really love you to talk about is glutamate can actually be found in a lot of supplements, which can be put in not even in supplements that are for the neurotransmitters.

So how do we look out for that? Because if we have this child or individual who needs to get it out of their body and now we're putting more in it, how do we look to make sure that isn't overflowing their system?

Right. So when you look at a label, you want to make sure there's not monosodium glutamate or MSG. And another way, maybe we could put this in the episode notes, is that monosodium glutamate, MSG, which will make your child crazy, even if they don't have that enzyme GAD1 not functioning properly, it's in so many things that have dyes.

But yeast hydrosylate is another name that it hides by. And so MSG, monosodium glutamate, and yeast hydrosylate, but there's a whole list of names that it hides by.

And if your child is eating something on a regular basis, especially something that you give them that's processed

with dyes, that could be making them crazy and making them show up like that.

Hidden Glutamate Sources and Diet

You know, Lauren, when you asked me about the neurotransmitter panel, the other thing about that panel that I love is it also shows several other genetic markers, including if an SSRI is going to be received and helpful, and if depression is an issue, and also To produce enough dopamine, your body needs, some people need, a balance of vitamin C and copper in their body.

And DBH is one of the markers, we call them single nucleotide polymorphism SNPs, on the neurotransmitter panel. So it's not just one thing. And you know, when the diagnosis of ADD or ADHD is made, I think it's a travesty that it's the only part of the body that nobody looks at when they make a diagnosis about it.

So for example, many times if a child or an adult comes to us with a diagnosis of ADD, ADHD, and they've seen a psychiatrist or a clinical psychologist or a developmental pediatrician, for example, we like to image the brain and do an MRI or potentially rule out seizure activity.

Because what if that inattentiveness is undiagnosed, absent seizures? They stare and they're having seizure activity, but they're labeled with ADD, ADHD.

So you have to look at all the common things. Well, I really love that you're saying that because that was one of the questions that I knew I really wanted to close with is that I think right now the reason why it's such a hot topic is it's a label that's given very easily.

Like, oh, your child runs around a lot and is really excitable. Well, they have ADHD or oh, yeah your child can't focus and do all this stuff or things like things like they're kind of mediocre in the class and that kind of like oh, it's fine or Parents kind of are at this place where they feel like they need a label in order to get their kids support Which is just devastating that shouldn't be the case Your child should get any support they need because you're the parent and you know them and you see them So what happens like you mentioned a couple of things, but what could happen?

Looking Beyond the ADHD Label

if we are super quick to just go, yeah, they have ADHD and here's this medication, because that was something you said back at the very beginning of the episode, is that ADHD is not Ritalin deficiency.

ADHD is not any of these types of medications. No, it is the body saying a thing. So what happens when we're really quick just to medicate versus getting to the root?

We may be overlooking very basic, excellent medical care, such as an airway that's compromised and you take out the tonsils, the adenoid, or you take care of a tongue tie and the inattentiveness goes away.

and they don't need to be on medication. You may be overlooking a significant infection in their body, such as undiagnosed strep or mycoplasma pneumoniae that's leading to inattentiveness.

So we look at ADD as inflammation, number one, and try to uncover sources of that and just make sure that the brain is not overlooking an infection. And we're something in the environment of the child.

that may be causing the inattentiveness, such as a profoundly water damaged school building. Maybe they don't behave a certain way at home, but they do at school, or the home is water damaged, but the school is not.

It's multifactorial, so digging for all those answers. But a real great place to start is cleaning out that kitchen, making sure you can get a good night's sleep, and allowing your child to move.

Mm-hmm. I really love that because you've really touched on the necessity for understanding the basics over these

past episodes, understanding the basics, but then understanding that your child, like so we talked about genetics throughout these episodes, is that understanding that every child, every person, every individual is built with a set of either deficiencies or overloading in their body being able to clear it out.

And so understanding the blueprint of the body and understanding what we were designed with and how we can support God's beautiful design and helping support these children.

And what the cool thing is is what we love about all of this is that whether it be supporting the sleep or supporting the diet, nutrition, or understanding the genetics is that this is a family game, right?

Hope, Root Causes, and Closing Thoughts

That no one's in this alone and that you're not in this alone, that there are several families that are going through this process together, which is what I love about the Hope for Healing community in general is like, Everybody's on their own journey at different stages, but it is still a similar journey of hope and getting healing.

So Dr. K, thank you so much for diving into all of the different complexities, but are there any closing comments or statements that you'd love to just embark like a little piece of hope to the parent who has gone through this journey with us over these past episodes?

Yes, actually as I sit here I think of a licensed professional therapist who brings her children to our practice and she said, my son meets the criteria for ADD, ADHD and we did an exam and sure enough he had huge tonsils and adenoid, had those removed.

But based on the other symptoms that she told me, we tested and this child actually had autoimmune encephalitis of the basal ganglia, which is PANS. But it took looking at the test for her to buy in.

It's a clinical diagnosis, but that changed the trajectory of this little boy's life. Now he has an airway where he's not drooling and snoring all the time.

and he can sleep and recover. But he's, you know, it's like you just look at his great potential because we're not going to have a fixed mindset and say, oh, they're smart, they're not smart.

No, everyone has great potential and we want to have a growth mindset. And so I would say in your heart of hearts, don't just settle for the label, pursue more.

And there's so many things functionally we can look at. You know, the genetics are the foundation, you know, your lifestyle, the quality of your sleep, but then also looking at nutrient deficiencies.

That wraps up our ADHD series and I hope you've gotten a lot of hope and insight for you or your child. Remember, ADHD isn't just about behavior. It's the body asking for help.

By looking deeper at sleep, nutrition, genetics, and environment, we can find real solutions. Every individual has incredible potential, and with the right support, that potential can thrive.

Want to follow along or explore more? You'll find all the links in the show notes. Know a parent or friend who could use this information? We ask that you pass it along.

And lastly, remember, there is always hope for healing.