Hope for Autism: Using Genetics to Reduce Inflammation Naturally Transcript

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Podcast Introduction and Episode Setup

Your genes hold the answers to your family's overall health. I'm Dr. Paula Kruppstadt, and on the Get to the Root with Hope for Healing podcast, I sit down with experts in genetics, functional medicine, and family care to explore what's really going on beneath the surface so you can stop guessing and start healing.

From personalized insights to practical tools, we bring you whole family wellness that starts at the roof. Welcome back to episode two of Autism. The most recent episode was Help, My Child's Been Diagnosed with Autism, What Do I Do Next?

We covered some lifestyle changes that you can make that's completely within your power. But today, I have again my guest, Catherine Salah, Certified Nutrition Consultant, who's been here with me at Hope for Healing for many years.

And we're going to take a little dive into what your genetics can help. show you and guide you. So, Catherine, if someone was coming to our practice and their child was diagnosed with autism, we've already talked about the Wellness Blueprint.

It has everything on there that we can give to parents as a tool to move forward. Can you talk to me specifically, and this episode is going to be on inflammation, And I might stop and interrupt you a little bit, but when we look at inflammatory panels, what are the different systems that we see and how can it help children with autism?

I suppose a broad question or a broad question that I have for you are what are some anti-inflammatories that can help every single child with autism?

the tools, like supplements? Is that what you're asking? Yes.

PEA for Inflammation and Gut-Brain Support

What are some, in our inflammatory sections of our panels, what are two things that a parent can start that will drive down inflammation that will do no harm?

Well, PEA, which I pronounce palmitoyl ethanolamide, but Dr. Krebstat is going to pronounce it better because she took Latin and I did not. That's pretty darn good.

It's very difficult to say. Palmitoyl ethanolamide, PEA, you said it just great. That is my favorite product. It is a bioidentical anandamide. And anandamide is the blissful molecule in our endocannabinoid system, which functions all of our body.

And so you're poor by taking this supplement, you're giving the immune system more of the blissful molecule. And what that does is it kind of how I explain it is it's like putting up a firewall So the immune system genes that have polymorphisms and aren't working functionally and causing inflammation, it's preventing them from exploding with inflammation.

So it's just kind of putting up a firewall is how I explain it. So now the immune system will be modulated and express the way it should express very calmly and strategically.

I mean, so that's my favorite and that does have no taste. You just open up the capsule, mix it with food. It doesn't mix well with liquid, but that's okay.

Mix it with a little bit of applesauce or if your child is picky, we talk about that. Our health coaches give you

suggestions. I had one mom sprinkle it on a strawberry as if it was sugar and the child, the toddler ate it right up.

That's brilliant. I hadn't heard that one yet. I frequently talk about my grandson, we open up the capsule and put it on his tongue. Yeah, there's different types of PEA, but this one by Vitalitas, it's our favorite.

You were talking about a firewall. So there's some cells in the brain that the inflammatory portion of our genetic panel, it's a little cheek swab. Again, I'm just mentioning there's lots of different genetic panels out there, but we've tried to make this and the reviews very friendly to parents.

So the endocannabinoid system, these cells in the brain called microglia So what are they doing that the PEA helps with? You kind of alluded to it. So the microglia is the brain's immune system, and it's just supposed to protect the brain from inflammation.

But if our genes have single nucleotide polymorphisms, which we call SNP, S-N-P, they are means that there's a variant. Oh, go ahead. So that's just a change.

One little portion of it. Right, so just a portion of that gene has a little variant, meaning like it doesn't, it's just a sequence, reading is off. But because of that, the gene doesn't perform and make the correct…

proteins and enzymes that the body needs to have this system function properly. And so when we have these SNPs in our immune system, it will cause an overreaction, an exaggerated reaction to a pathogen.

And so the microglia, instead of protecting the brain, it'll cause more inflammation on the brain, like a soldier that's gone haywire. Okay. So a Papagen is a foreign invader.

And then these microglia, I also use the illustration, they're like Pac-Men. They're kind of cleaning up the brain. So their little membranes are really on fire.

So like you said, Catherine, the PEA is like a firewall. It calms everything down and it promotes a calmness. So if we know that the immune system is run away, it's running away, this calms it down.

I also, when we talk about inflammation, I always say to parents, it's, remember, inflamed. If you look at a big fat yucky bug bite, it's hot. red, swollen, and painful, but your child cannot unzip their brain and say, look, mom and dad, my brain is hot, red, swollen, and painful.

They show up by banging their head against the wall or rubbing their stomach or repetitive motions or getting angry and having meltdowns.

High-Dose Fish Oil for Brain Inflammation

So palmitoyl ethanolamide, PEA, opened up, and it's the white one. There's different types, but this one is by vitalitas, and we'll have that in the episode notes, that is very, very powerful.

So when you start taking that, we typically recommend, oh, depending on the age of the child, it's like you can't really OD on it. It also helps the stomach, or not the stomach, the entire GI tract.

So the microglia of the gut are something called coop for cells in the liver. The liver has these things called sinusoids and the vagus nerve, which We talked about emotional regulation.

Our kids with autism are emotionally dysregulated. So if you want to create some joy and some bliss and your kid struggles from constipation, sometimes the PEA will help these little Cooper cells that clean out the liver cells, okay?

and the vagus nerve makes its way through the liver up to the brain, it's calming and it might help with pooping too. So constipation is a very big problem in our kiddos with inflammation and autism.

Okay, and what about The fat content, like there's stuff called myelin that coats our nerves and our brain has a lot of water, but it also has a lot of fat.

So we talked about PEA driving down inflammation. What is another tool that a parent can use to drive down inflammation in their child's brain and body that has to do with fat?

Yeah, high dose fish oil. Okay, how do you know if you're getting too much fish oil? Your poops will be oily. Okay, so yeah, so if your poop gets oily, you just back off a little bit, right?

Right. Have you ever had a patient that had oily poops in our practice? I have not heard of one since, or ever. Yeah. Neither have I. Neither have I. So, high dose fish oil is incredibly powerful.

And there's different types. And if your child just picky, there's liquid, there's also little gummies. And I've experienced our parents that first come to us So, many of them and you have done so much homework.

They're already on official. They know to take official, but the quantity is not enough. It's too low. So, we're talking high dose. We're talking high dose.

So when we look at the label, the EPA and the DHA, and a lot of times people look at other omegas, what is the dose of the fish oil that would be really beneficial, let's say for a child that's, you know, less than 12 years of age, you know, anywhere from potentially one, just what are we looking for for EPA and DHA?

So yeah, everyone looks at the total amount, but what we want, EPA about 1800 milligrams and DHA around 900 milligrams. So really high dosing. Yeah, littles.

That high dose where you only take a three quarter teaspoon, I think half to three quarter, where if you get some products from elsewhere, you have to take like 12 jellies a day, you know, that's a lot.

And you're going to run through your money very quick. Yeah.

Vitamin D3 with K2 and Immune Support

You know, what you brought up, I would say for our littler ones, about 1200, then the kids are more like 6, 7, 8 to 12 if they haven't gone through puberty or aren't starting, you know, 1800 is good.

And then for the DHA, about 900. So we're looking at 1200 EPA and 900 DHA. There's different forms. And then for our older patients with autism, we're looking at 2,400 milligrams of EPA and about 1,800 milligrams of DHA.

And sometimes even more, depending on what's going on. So that fish oil is providing fluidity to the membranes of our cells. When we're really inflamed and we've got a kiddo, Catherine, that is hitting their head, bumping, you know, they're throwing temper tantrums.

The immune system is on fire. So what does fish oil do for the cells when this is occurring? Yeah. So it's going to, when that happens, your body is in a storm of inflammation, which creates oxidative stress.

And that fish oil is going to go into the cells and kind of clean all of that out. I've heard you say, Paula, that you call it rusting on the inside of your cells.

And so that's the oxidation. And so it helps go in and oil everything up, per se. Yeah. Yeah. You know, I think about when we, especially here in Texas, we're driving down the road, we see a pickup truck with rust on the bumper.

It's this, if you're rusting your cells from the inside out, burning through the lubrication in the cells. So oxidation, bad guys, bad guys, bad guys, all these cells making these inflammatory messengers.

And so fish oil helps drive that down and that can really, really help us speech. I'd like to thank Fagran Genomics

for sponsoring our podcast. Without knowing what your precision genetics are, you don't have a roadmap.

So please log on to our website, schedule a welcome call, and see what the Wellness Blueprint can do for you. That's the premier and proprietary genetic panel that Fagran has allowed us to create.

Now, let's talk about something people have heard about, but let's talk about vitamin D3 with K2. And why do we use both together? Yeah. Well, vitamin D is a psychosteroid, which just simply means it's holding up in supporting the immune system.

So I think about vitamin D as the freight train cart that holds and carries your immune system. But if the immune system is overactive and weighty, it's just putting out too much energy, you're going to burn through that vitamin D.

And so you need to make sure the faster your immune system is running, the more vitamin D you have. Now we take vitamin K2 with vitamin D because They'll prevent the calcium from staying in the serum and not sticking to the bone.

CBD, CB2 Receptors, and THC-Free Options

So we want to take vitamin K2 so the calcium stays in the bones. Okay. So yeah, just to kind of piggyback on what you said. So vitamin D is not really a vitamin.

It's a psycho-psychosteroid and it's very powerful. It crosses in and drives metabolism, but we burn through this when we get sick and we're challenged and we're inflamed.

And before, you brought up pathogen, so when people get sick, you can increase it a little bit. Now, people freak out when their vitamin D goes above one.

82-100 is a really good place for that vitamin D, 25-hydroxy to be, and some people have a profound profound difficulty getting that up and they're inflamed a lot of the time.

Okay. And I'm not a medical doctor or practitioner, but what is a lot of times medicine will offer steroids to reduce inflammation, but taking vitamin D3 as a natural steroid, wouldn't that be better to take rather than a steroid?

Right. You know, it depends on how much inflammation there is, but if you lean into your natural steroid production with vitamin D3 with K2 and increasing that, then it will be burned through rapidly when you're sick.

But the reason that steroids from the outside that are given orally or the wrong form injectable, like we like to use intramuscular methylprednisolone because it doesn't suppress the brain's signals to our adrenal gland where natural cortisol production occurs.

So if you keep getting steroid shots, you'll have an inability to mount a response to foreign invaders down the road. That's so good to know. Yeah. So let's back up a little bit when we talk about inflammation.

So we've talked about this endocannabinoid system and how palmitoyl ethanolamide PE is so powerful and then using fish oil and D3 with K2. But let's also talk about the cannabidiol system, especially what we call CB2 receptors.

So, on our precision genetics, we've identified some genetic markers that show us if the system is affected. People don't, they're probably not going to want to know all the names of all those different gene variants, but what are some ways that we can give a non-THC containing you know, we're not going to give you child marijuana.

We have patients who work here at the practice who work for Homeland Security and they have to take drug tests. So let's talk a little bit about pure cannabidiols or cannabidiols that have other things put in them called terpenes.

Can you talk a little bit about that? I can. Yeah. And what's important about cannabidiols like hemp is that they

prevent the degradation of the blissful molecule.

That's why it's good for us to have those cannabidiols in our diet and even supplements. So for a child with autism that, you know, can't take a capsule or something like that, how do we administer something to modulate or to help infuse the body with a modulator of the cannabidiol system.

So we have a transdermal cream and it's very low dosing and you just put it on the back of your child's neck so before they go to bed you just give them a little massage.

Some kids that are sensitive to that they don't want to touch you just rub it on really really quick or maybe they can do it if They can do it themselves if they don't like touch.

But what that does is that cannabidiol moves up the brain cavity and binds to the CB1 and the CB2 receptors in the brain and also the vagus nerve, which will directly connect to the gut.

So while your child is sleeping, everything is just calming down. And so it's really effective. But may I talk about THC and why we don't use that other than…

So when we consume THC as a terpene, and it binds to the cannabidiols to help them work better. But unfortunately, too much THC, instead of preventing the degradation of the blissful molecule, it degrades it.

So that's why it's not wise to smoke marijuana because you're overdosing, you're getting too much THC and THC does not bind to the receptor of the immune system, only the receptor with the nervous system.

So it doesn't have any healing power. Our CBD, our liquid version, has other terpenes that do bind to both receptors.

Genetic Panels and Personalized Next Steps

So they relax and they heal and they do not degrade the blissful molecule. And so those terpenes are, we have several of them, one for sleep and anxiety and just overall wellness, but they work good.

And they're for older children that can take a sublingual, but the transdermal cream is really helpful for our littles. I know when I see a child that has autism that's profoundly developmentally delayed or they're nonverbal, we tend to use the higher strength, which is 10 milligrams per pump.

But if we have a neurotypical child, we'll use a lot less. But with autism, these are things that parents can do. Now, let's talk about other options for genetic evaluation, because we've talked about how the Blueprint gives us all these systems, but some other, you know, I'm thinking about what we call the neurologic psychiatric panel, and then something called the newborn panel, you know, or even the immune autoimmune inflammatory panel.

What I love about the neuropsychiatric panel I mean, we were just looking at this. It has multiple systems on it, specifically how the brain regenerates itself because there's things that we can do if we find out that your child's brain doesn't have all of the capacity and the ability to regenerate itself and the gut-brain connection.

But what else is on the neuropsych panel? You've got inflammation, right? Inflammation, but also the neurotransmitters. Like, are we making enough enzymes and protein to create dopamine, serotonin, GABA, which we need for sleep.

It's a very calming neurotransmitter. Also the monoamines, which break down dopamine and serotonin, catecholamine, which breaks down dopamine, and stress.

And so we can kind of look into, I call it the personality page because it lets us know how your child will deal with stress and emotions. But it's very important with autism because are they creating too much dopamine, which I'll let you talk about the effects of that.

It has neurotransmitters, but it also has autophagy, which is the self-cleaning or recycling of our cells, which is so important. for the immune system to keep it running, very healthy and active, and then also detoxification, which we all know is, like you said, constipation.

We need to have that detox pathway opened. It doesn't have all of the various markers that proved to be helpful, but it has the main ones. And I think that's really so critical.

I think for the detox, it has three of the genes that we have in the Wellness Blueprint. I believe the Wellness Blueprint detox has like several with detox and antioxidants, about eight genes.

But we still get an idea if, you know, you're, you know, financially, if you need to do the smaller panel, we work with our families. What can I say is that every panel comes with a consultation because it's not, I don't think even if you do over the counter, like 23andMe, you need help identifying what these genes do and what is the solution.

And we're hope for healing. We're just don't want to go up. too bad you've got this gene variant. We want to say it's okay. We've got now, I come with it with excitement to be quite honest.

I'm like, oh my goodness, now we know, we know exactly how your child is made up. We know your child's blueprint. We know what this child needs for, to immune system run effectively and not out of control and cleaning out the cells.

It's so empowering. I just come, I look at every consultation with just great hope and excitement. And I'm not excited that we have these polymorphisms, but we all do.

We are all a one big beautiful genetic mess. And so knowing your own personal ones just gives you power. I love it. Yeah. So I guess what I would say in summary is that if your child's been diagnosed with autism, you have, again, within your reach, the ability to make changes, positive changes, to change what you've been dealt.

And you can overcome those insufficiencies or just variants that are roadblocks And I think that's what encourages me so much. So I would like to thank our sponsor, Fagran Genomics, for providing the Wellness Blueprint, but also the Neurologic Psychiatric Panel to be reviewed with Catherine.

We also have another member of our genetic team that you could review that with. to just inspire you, give you hope, and give you actionable intelligence to move the needle forward for your child.

So again, thank you for joining us here at Hope for Healing on the Get to the Root podcast, where hope is infused to all of our appointments. Thanks for joining us at Get To The Root with Hope For Healing.

If this episode helped you, follow and share it with someone who needs it. And leave a review. It helps others find us too. For a free consultation, visit our website at GetToTheRoot.com with a number 2 and schedule a welcome call.

We'll see you soon.