



970: Personalized Nutrition for Autism: Diet
To Transform Neurodevelopmental Health
With Julie Matthews

Child: Welcome to my mommy's podcast!

This episode is brought to you by NativePath and in particular, something I have been experimenting with and really, really loving lately. And here's what you need to understand. A lot of us think calcium is important for our health, especially for our bones. But is this actually true? Bad news. It turns out maybe not, or at least there's more nuance here.

One of the largest bone health studies ever conducted followed thousands of women taking calcium and oral vitamin D daily, and the results were surprising, but not in the way you would think. They saw no significant reduction in their risk of fractures, and they saw no improved bone density. So all those calcium pills might not be doing what we think, and it turns out they might actually be counterproductive.

But here's where it gets interesting. A brand new study found that women who did one thing every morning consistently for six months gained 7% bone density, which is massive. This is the same amount of bone mass the average person loses over the course of five years after a certain age. So what did they do?

It was not a medication or even a workout. It came down to one simple thing added to their morning routine. And that's why a lot of people, especially people over 50, are making this one simple change and seeing massive results. I'm sure you're probably curious what it is, and it's a particular protein from one of my favorite brands called NativePath.

And they're offering all of you up to 45% off of this, plus free shipping and a free gift. Right now you can visit savewithnativepath.com/wellnessmama to find out what it is and how to implement it and save up to 45%. So again, that special site for 45% off is savewithnativepath.com/wellnessmama And see why people are adding this to their routine with amazing results.

This podcast is brought to you by LMNT, and this is a company you might've heard me talk about before, and I really love their products because proper hydration leads to better sleep. It sharpens focus, it improves energy, and so much more. But hydration is not about just drinking water because being optimally hydrated, a state called euhydration is about optimizing your body's fluid ratios. And this fluid balance depends on many factors, including the intake and excretion of electrolytes, which many people don't get the right amounts of. Electrolytes are charged minerals that conduct electricity to power your nervous system. I talk a lot about nervous system on this podcast.

They also regulate hydration status by balancing fluids inside and outside of our cells. LMNT was created with a science-backed electrolyte ratio of 100 milligrams of sodium, 200 milligrams of potassium, and 60 milligrams of magnesium with no sugar. Since electrolytes

are a key component of hydration, here's what happens when we get our electrolytes dialed in.

We have more steady energy, improved cognitive function, suffer fewer headaches and muscle cramps, we can perform better for longer, and especially the support fasting or low carb diet because when we stop eating carbs like during a fast, the absence of insulin allows the kidneys to release sodium.

So replacing that lost sodium with electrolytes can help you feel good on a fast. Since LMNT is zero sugar, it also doesn't break up fast. Electrolytes are also important for maintaining blood pressure, regulating digestion and proper fluid balance. Keeping skin hydrated, which is a big one that I feel like often gets missed and so much more.

I feel like proper electrolytes is a missing piece for a lot of people and I love LMNTs new canned drinks, which are sparkling water with all the same ratios and minerals I just talked about, and they are delicious. You can check it out and learn more at drinklmnt.com/wellnessmama And at that link you will receive a free sample pack with any order.

Katie: Hello and welcome to the Wellness Mama Podcast. I'm Katie from wellnessmama.com, and this episode goes deep on the topic of personalized nutrition for autism diet to transform neurodevelopmental health. And I am here with Julie Matthews, who you will get to hear is such a wealth of knowledge on this particular topic.

She is a certified nutritional consultant and published researcher specializing in personalized nutrition for complex neurological conditions, particularly autism spectrum disorder and ADHD. And she has done this for over 20 years. She received her master's in medical nutrition with distinction from ASU. And she's the co-author of two research studies that demonstrate the efficacy of nutrition and therapeutic diet intervention for Autism Spectrum disorder.

She also works directly with children and families to personalize this approach and get incredible results, as you will hear. So let's jump in and learn from Julie. Julie, thank you so much for being here.

Julie: Thank you for having me. I'm very excited.

Katie: I am excited for this conversation too, and especially to really learn from you on the topic of personalized nutrition for autism and really delving into what are the best ways to support nutritionally lifestyle wise. I know there's a lot that goes into this and certainly a lot of nuance and personalization. And it seems like there might be a lot of things that we can do, especially as parents that we might not realize.

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So I'd love to kind of build the foundation for this conversation by talking about what do we know as far as some of the factors that might contribute to autism. And then from there, build into, based on that, how, how can we help it?

Julie: Yes, I think that that's a really valuable point because it really helps explain how diet actually can help. And so autism is, while it affects a lot of factors involved with behavior and language, and so a lot of things involving the brain, it's not isolated to the brain. And the body is very connected to the brain in literal and more biochemical types of ways. So we know that the microbiome, the health of our gut is affected. We know that there's a strong gut brain connection and so when the gut is affected, the brain can be negatively affected. There's a lot of inflammation in autism. And that can mean that the foods we eat can contribute to that inflammation.

And when we get inflammation in the gut, we can get inflammation in the brain, which we know is fairly common in individuals with autism. We know that detoxification is not as robust as it is for other people, and so that can affect our ability to detoxify not only toxins in our environment, which can add to the burden, but in our foods, food additives and things like that.

So those are just a few examples of how it's very important for us to look at this condition as a whole body condition where we can try to figure out how can we avoid foods that are irritating and aggravating and inflaming the system. And how can we add in good foods that nourish the brain, that are more easily digested, that can help with growth and repair, and things that not only kids, but all of us really need.

Katie: I think that's such an important point, and certainly the topic of inflammation is a recurring one on this podcast. Even in its connection to many, many forms of chronic disease as well as just how we feel, of course, our sleep so much seems connected to this. And I feel like unfortunately it's not an area that gets enough talk considering how important it seems to literally everything that goes on in our body.

And you touched on something else that is really core to kind of my own personalized thoughts of nutrition lately. It was a big shift for me, but moving away from the idea of just like calories or even macros and really looking at how can I maximally nourish myself with whatever I'm going to eat in a given day. Which often ends up choosing, I choose low inflammatory foods, really nutrient dense foods.

But as I was diving into the research on this, it seems that not getting enough nutrients, even if we're getting enough calories, can actually be a signal of stress to the body. So even

if we don't mentally and emotionally feel stressed, our body is registering stress and can be in like a sympathetic nervous system state if it's not getting enough nutrients.

And it sounds like you're taking this idea even deeper into understanding in a specific way for a person with autism how that impacts their body and the very specific needs I would guess they would have. So, where do you start with this approach? Where do you, like what do you begin to identify with people?

What do you, do you look at nutrient levels? Do you look at their diet and lifestyle factors, or where do you begin with someone?

Julie: Well, I'd first like to start at taking out the artificial additives that, as you mentioned, create a lot of inflammation. And when we're creating inflammation, we're using our good nutrients to kind of put out the fire of the inflammation. So we can't even use the good nutrients that we take in when we need them to manage, detoxifying the additives and things like that.

So I feel that's a good, fairly easy place for most people to start. It can often make a big impact and isn't too challenging because without even changing somebody's dietary preferences, we can find any food that maybe is... Again, I'm not a fan of candy, but you could find a candy that's free of artificial colors.

You could find a cookie that's free of artificial preservatives. So again, we wanna go to healthier foods, but without even having to change what the child prefers, we can really make a big difference just starting with some super basics for people that are new. And then for people that have been at this a while. Looking at what nutrients they, firstly, getting a broad range of nutrients, I think is beneficial. So that's a good, another good first place to start for people. We all need enough calcium, enough magnesium, enough of some of these really important nutrients for our brain and our body. But then we absolutely can do testing for nutrient deficiencies.

We can look at the microbiome through testing. We can look at a variety of food reactions and food sensitivities through various types of tests. So I think a combination of what symptoms does somebody have, we learn, can learn a lot from symptoms, which we can maybe jump into later if we look at some of the research that I was part of. But you know, so in addition to symptoms, we can look at some of these more quantitative factors.

Katie: That makes sense. And for people listening who are curious, what would you categorize as kind of the places to start on the most inflammatory foods? I know you said you do testing, so there's gonna be some personalization as well. But are there categories

that you would say are generally inflammatory and would be probably beneficial for all of us to avoid?

Julie: Yes, sugar's a big one. So that I think, a bit goes without saying. Sugar can be very inflammatory, very difficult on the immune system and so that's one. Also gluten and dairy can be very inflammatory. And we have seen some fascinating results. In one of the studies that I was part of there was a young man who was catheterized because he wasn't able to urinate on his own.

And when he took out dairy, he was able to urinate without needing that catheter. And then he accidentally got an infraction. The problem came back, he got rid of it, it went away. He got another infraction, it came back. So it was very clearly tied to inflammation for him. And so that's just one example of something we could very quantify, you know, very clearly see. So gluten and dairy are probably really big ones. And then from there it's really more personalized to the individual. How do they, do they have challenges with other sensitivities, things that are common like corn or eggs? And then, and then going from there, because it does kind of depend on what's going on with the individual, whether they do well with grains or they have a problem with salicylates or something like that.

Katie: Gotcha. And I'm curious also, before we build more into the detail of the conversation, I know you've worked with a lot of people on this. Just so people can understand and have an idea as we build through this conversation, what type of improvements have you seen that can be possible when someone's willing to address these steps?

'Cause I know as someone who got a diagnosis in the thyroid realm, for instance, I was told this was lifelong. I would not be able to reverse it. I would be on medication my whole life. None of those things actually ended up being true. And I also realized it was a spectrum. It was not a black or white.

Like I either had thyroid issues or I didn't, I was able to see improvement. That made me feel a lot better, even before it totally resolved. So I'm curious from an outcome perspective for parents who are wondering like, if I do this, is it really gonna make a difference what you see when you work with people?

Julie: Yes, we see improvements in cognition, in focus, in language, in hyperactivity, gastrointestinal challenges of diarrhea, constipation, sleep. We looked at 24 different symptom improvements in one of our studies and saw really dramatic improvements. In the other one, we saw almost a seven point improvement in non-verbal IQ. We saw four and

a half times the developmental age improvement. So the improvements can be really life changing and very vast in terms of different areas.

Katie: That's incredible. Those are definitely like statistically really relevant numbers and I think really inspire hope for parents listening, especially if they've kind of been given the narrative that there's not much they can do. And so I would love to go a little deeper on your research side and help parents understand how the personalized nutrition and or if there are lifestyle factors that are complimentary as well can make such a difference for these kids.

And maybe like a where to start or kind of a triage effect of where would be the jumping in point? I would, I know friends with children who have autism and they have a lot going on and they're very busy parents and they're managing a lot. So I would love to like start building into some simple starting points.

Julie: Absolutely. So two of the papers, the two of the studies that I like to highlight that I was part of. One was a randomized control trial over the course of a year looking at six different interventions. So we did a multivitamin mineral formula, then we added an essential fatty acid. Then we looked at carnitine, Epsom salt baths, digestive enzymes, and a healthy gluten-free, casein-free and soy-free diet. And we looked at the, as I said, we followed them for a year.

So this was one of the things I think was great, is that this is how families actually implement interventions, right? They don't start with B6 and do that for a year and then add folate and do that for a year. They do everything they think can help and everything we've seen to be beneficial. And yeah, we stage it a little so we can see if there's improvements or reactions to things, but we do them more or less together because there are synergistic effects of these types of things and many can be helpful.

And so that was the study where I mentioned there was a seven point improvement in nonverbal IQ and the four and a half times improvement in developmental age. Along with, as I said, many improvements in symptoms, autism symptoms, language, behavior, a variety of different areas in that.

And that's where the young man had the improvements from the gluten-free diet or the dairy-free diet portion with his need for catheterization or no longer having that need. There was also a young girl who was in a wheelchair and she got out of her wheelchair. After being, she had, the carnitine portion really helped her.

And that's where I think the personalization is really valuable because not everybody in the study needed carnitine, but those that did need it, it was really life changing for them. She

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was able to put her wheelchair away in the garage and not need it. Before that, if they were gonna go on any kind of substantial walk, more than kind of to the car, if they were gonna go shopping or around the neighborhood, she needed to be in a wheelchair.

So incredible changes for that person. So those are, that's the first study. The second study was a survey of 800 families looking at 13 different therapeutic diets. So a gluten-free casein-free, specific carbohydrate diet, a food avoidance diet based on IgG and IgE testing, a ketogenic diet.

So there were a lot of different diets that we looked at and we looked at 24 different symptom improvements. And when we looked at, before we get to the individuals, if we looked at diet as a whole, we also looked at psychiatric and seizure medications as well as nutraceuticals. And we found that diet was statistically significantly better at having an overall benefit than either of those other approaches were.

Which is interesting that even supplements. However, the other big thing was that the diets as well as the supplements we're significantly less likely to create adverse effects. So the idea that diet and nutrition and, you know, nutrients and things. Can have a profound improvement, much better, and with less side effects.

So I think that was, you know, a really exciting point. And then we dive down into little individual differences. When we look at an individual diet and how it performs in general and then how it performs over individual symptoms, there were differences. All the diets showed improvement, but some diets showed more improvement than others.

Some diets showed less adverse effects than others, and some of them showed very specific improvements. So we know for example, like a really classic example is the ketogenic diet we have known for decades is very beneficial with seizures. So we did show that as well. But other things like hyperactivity, there is a diet that the Feingold diet that is involved with reducing salicylates, that was very beneficial for reducing that. As well as diets that helped more with cognition or language or focus. So I think the point there is that diets in general can be advantageous the key is to find the right diet for the individual.

And also the other thing we found is we looked at healthy diets, low sugar diets, as well as the ones that were more kind of therapeutic diets. And we found really great benefits. For instance, improvement in overall health associated with a healthy diet that was free of the junk and rich in vitamins, you know, vegetables, and protein and things like that. So we really found a lot of benefits. So another, I should say kind of global thing is making the diet as healthy as possible, while taking out the things that are causing a problem for that individual.

Katie: I love the focus on the personalization because I've shied away from ever sharing too much detail on exactly what I eat or exactly what supplements I take for that particular reason in that I figured those things out after years of experimentation and really dialed it in for myself. And I'm under no illusion that if someone else did the exact same thing, that it would work exactly the same for them.

I feel like the valuable part of that was actually the experimentation and the learning what my body in particular needs. And so I share only from a framework perspective, not from a blueprint perspective. In realizing like that N of 1 study we do on ourselves is potentially the most valuable research we will ever undertake.

And so I love that you get that personalized and that nuanced with everyone that you work with. I would love to hear a little bit more about carnitine, 'cause I only have experience with that in myself and in my work with athletes and I know it can help be helpful there. But what do we understand about the mechanism by which that might be particularly helpful for certain people?

Julie: Well we know that in kids with autism, about 30% of them or so have mitochondrial dysfunction. And so carnitine helps us to shuttle fats into the mitochondria for energy production. And so that is the reason, or one of the main reasons that carnitine was included in our study was because of that benefit in helping to improve mitochondrial function.

The mitochondria are, you know, the energy or the, what we call the powerhouse of every cell in the body, which means every organ system, your brain, every, everything needs that energy. And so when the mitochondria aren't working well, it can affect any or every system of the body. And so that is going to be a direct way to really support people with autism if the mitochondria are not functioning optimally.

Katie: I love that. And I'm curious, building on that, are there other lifestyle factors that parents can take into account that can also be supportive? Like I know for instance in my own kids, just having done research over the last 15 years trying to keep as many toxic things out of their environment as possible.

Realizing that even things on our skin can cause skin exposure. We can be inhaling laundry detergent smells, for instance, getting low level exposure there. But also as you were talking about carnitine, I was thinking of some recent research I read about natural light exposure and kind of the idea of nature deficit disorder in kids. And how getting the appropriate amount of natural light during the day can increase even nutrient absorption by as much as 500%.

So I'm curious if there are any things we can build into our kids' environment or lifestyle that can also be supportive that parents might not just think of right off the bat?

Julie: Yes. And these are things that I think are... what do I wanna say? I don't know if I wanna say easier, but you know, they're parts of life that don't involve struggling with, you know, feeding our kids and whether they're gonna like it or not, those kinds of things. With, with things like getting out and getting more fresh air, more sunlight.

I mean, if you think about it, we evolved for essentially millions of years, getting light, you know, we, that's just an essential component of human life and all life is getting out and getting sunlight. And so as far as humans have been on the earth, that has been an essential component. So absolutely getting outside, getting fresh air. We actually, in the study that looked at other therapies, we looked at physical activity and it was very beneficial. So getting outside, getting a little exercise, a little activity, a little sunlight, all of those things are gonna go a really long way.

We also know that often sleep is a big challenge for people, children on the spectrum. And so getting enough sunlight really helps to set that circadian rhythm, which helps to support our overall ability to produce melatonin when is appropriate and all of that. And so I really like that those ideas that you had. And usually it's fun and kids love to do it. And so it's, I think it's a really great way.

And then, you know, the first step of my book is about get out the junk. Not only the toxins in our food, but like you're saying, the toxins in our environment, whether it's flea medications on our dog. How can we do something or in our yard? How can we do things as naturally as possible? How can we look at the toxins that might come in our, our food? Not only the food additives, but toxins like the pesticides that are on them. Like you said, anything we put on our skin is gonna absorb in and that is gonna be something that has to be detoxified.

And a lot of times people don't think about that. Or fragrances that are in different, you know, whether it's fabric softener or the candles that some people use that don't have the natural fragrances or natural, you know, essential oils. All of those can have pretty significant effects on kids, with all sorts of conditions, but particularly autism because, because of that inability or decreased ability to detoxify.

Katie: That makes sense and I feel like that's also good general advice for parents. Any parents listening is the more time we can just go, literally play with our kids outside barefoot in the sunshine there are so many benefits to that from the light to the vitamin D, to the fresh air, to the movement, all of it.

And I think in that sense, kids come sort of naturally designed to do a lot of these things and we can learn from them in making those things a priority. And you mentioned your book, which I will link to in the show notes. But I would love to talk about that a little bit because I know you have a 12 step plan and you really walk parents through this.

Could you maybe give us an example of some of the things that are in the book or things that you kind of hold parents' hand and guide them through? And I'll, like I said, I'll link to it in the show notes as well.

Julie: Yes, so the book has 12 steps, and it starts by taking people that might be really new to this through some of what I would consider more of the essentials. And so the first step, for example, is getting out that junk, as I mentioned. Step two is adding the nourishing foods, so adding, you know, healthy whole foods. You know, we go into anti-inflammatory foods, good probiotic foods, and just good how to get enough protein. What enough means. What are good sources? So we start with some of the, you know, the basics of getting good things in. We look at getting good nutrients in, some foundational nutrients, and then we support picky eaters.

And then from there I look more at, well, what therapeutic diets tend to be the most beneficial and that are the easiest to do. So an example, if we jump straight to the ketogenic diet, we wouldn't know. And, and it's a great diet and some people might, might do that first, but usually people don't jump straight there. Because if you do, you don't know was it the gluten that was the problem? Was it the grains that are the problem? Was it the lower carbohydrate that was the problem? Was it the higher fat that put them into ketosis that was the benefit?

And so I like to take, you know, small step by small step and introduce new therapeutic diets in some of the ones that I think are often the most used and the most beneficial for the most people. And then get into some of the other nuanced diets. And when we get to the diet portion, they're not things that everybody is going to implement everything. As you mentioned, certain people are more likely to need one thing than another.

So I help them figure out, well, what are the common symptoms that are often associated with these food compounds and how do we figure out which diet might be beneficial? And you know, is it testing that would be beneficial? Is it a dietary trial? So I kind of talk about when, how to determine which one might be right for an individual.

Julie: Amazing. And I'll, like I said, I'll link to the book in the show notes, but I know you also work one-on-one with family. So if people want to work with you and get personalized and go into all these areas we're talking about, where can they find you and work with you?

Julie: Well, probably the easiest place is if they go to the book website, which is. personalizedautismnutritionplan.com. So without the, the. That'll give them everything about me, my programs, how to get ahold of me and all of that.

Katie: Amazing. Well, I will put those links in the show notes as well for any of you listening on the go. And you guys stay tuned because Julie and I are gonna record another episode about the ADHD side of things and really practical strategies there. But Julie, for today, thank you so much for your time and for all that you've shared and for this work that you've do to help so many people.

Julie: Thank you so much.

Katie: And thank you for listening, and I hope you will join me again on the next episode of The Wellness Mama Podcast.