Introduction to Julie Matthews and Personalized Nutrition

Welcome back to the Heal Your Brain Masterclass. I'm your host, Doctor David Jockers. And today I'm interviewing Julie Matthews, the bestselling author of the Personalized Autism Nutrition Plan.

Julie is a certified nutrition consultant and published researcher who received her master's degree in medical nutrition with distinction from Arizona State University.

She specializes in children's nutrition and complex neurological conditions, most notably autism spectrum disorder. For the last 20 years, and she's coauthored peer reviewed research studies demonstrating the efficacy of nutrition and a therapeutic diet and how to use that for autism.

Her website is nourishinghope.com. You can check her out there. And today again, we're talking about personalized nutrition for ADHD, autism and anxiety.

And in particular we're going to go into the role of chronic inflammation and how that triggers neurodevelopmental disorders. We're going to talk about how foods can trigger anxiety irritability and behavioral problems.

And we're going to talk about the results of two published studies she worked on that were related to nutritional approaches to autism, specific nutritional approaches, including the role of salicylates oxalates and histamines and how they impact brain inflammation.

You guys are really in for a treat here. If you have any questions when it comes to nutrition, advanced nutrition, and brain health, Julie is an expert.

So let's go into the interview with Julie Matthews. always great talking with you. And, you've done some great work in personalized nutrition, which is what I teach.

And, those that follow me know that I'm a big advocate of personalized nutrition, and you've been in this field for many years and even publishing studies on this and know how important this is.

And autism is really on the rise. I remember, you know, back in the 1970s, it was like one out of 10,000. And now the most recent stats say it's one out of 36 and it tends to impact boys more than girls, but one out of 36, which is roughly I think it's like almost 3% of, you know, the kids in our, in the United States who are on the autism spectrum disorder, why do we have such a what is autism and why do we have such a rise here?

Well, autism is a neurological condition, a neurodevelopmental disorder, and it involves challenges with speech and language and socialization and a variety of, you know, repetitive behaviors or kind of certain particular types of behaviors that happen and why is on the rise, I suppose, a discussion of topic that we could probably talk about for years.

I think it is a combination of our environment and our genetic predispositions. And I think over time, more environmental factors have caused more genetic predispositions, and it just has kind of snowballed into the challenge that we have today.

Yeah, for sure, by environmental factors. And one of the big things you're talking about is toxins, chemicals that we're being exposed to. Right. And so we all have kind of a toxic bucket.

We have an ability to handle a certain amount of toxins and chemicals and process them and get them out.

Why Autism Is Rising and the Role of Environment

But you know, in our society, women being them, bartered with them particularly, you know, over the last 30 or 40 years, and we're seeing huge rates, people are not able to detoxify as effectively, which makes their nutrition even that much more important.

And the foods that they're putting in their body. And so let's go into, you know, the impact of nutrition on a lot of these neurodevelopmental conditions.

Great. What should where should we start? What can we do? Well, I mean, your book goes into it in great detail. Well, obviously, I know, several years ago, you published a large study, the Comprehensive Nutritional and Dietary Intervention for Autism Spectrum Disorder.

Reno is a randomized, controlled 12 month study. So let's talk about that. What you did, how you broke down that study and the findings you got from it.

Yes. That was, as you said, a randomized control trial. So we had a treatment group that did six interventions spaced approximately one month apart each, and we followed them over a year.

So it was a very comprehensive study. And we looked at a multivitamin mineral formula, essential fatty acids, a healthy gluten free, casein free and soy free diet.

We also looked at Epsom salt baths, carnitine and digestive enzymes, and we found an almost seven point increase in nonverbal IQ. We found four and a half times the developmental age improvement.

So they started catching up to their peers and exceeding the development. In that time period, the we found improvements in language and sociability and health and mood and so many different areas.

It was quite an exciting study. We can maybe at some point we'll see if we want to go into any individual kind of case. Casey's in there or not. But that was that was the the first paper that we looked at.

And we were pretty amazed with the results for sure. Well, the dietary interventions are gluten. You said gluten free, casein free, soy free, which isn't necessarily the easiest thing to do if you're eating the standard American diet because there's gluten, dairy and, soy and just about everything.

But if you're eating a real food focused diet, you can obviously start to to avoid those things. And why why do you think you saw results like that? Well, we each of the interventions we used were interventions had already been studied individually.

So we know we knew they had some success. And this is the way that families and health practitioners typically implement diet and nutrition, right. You don't just add vitamin C and wait a year and see what happens.

You implement many of the things that work on together. So, you know, we need nutrients in concert, but we also need to do diet and all that. So I think part of the reason we saw results is that we did something that is based in real life experience, that does work, and it works because we're addressing the underlying factors that we see impacted.

So we see a lot of nutrient deficiencies. So we added nutrients. We added some of the specific nutrients that can help with mitochondrial function like carnitine and Epsom salt baths that can help with detoxifying certain substances.

Autism Nutrition Study: Diet, Supplements, and Outcomes

So we were really trying to address the underlying factors inflamed gut poor digestion with a gluten free and dairy free diet. So that's why I think that the study showed such good results for sure.

And for years people have been doing gluten free, dairy free. And so let's talk about gluten. Let's talk about dairy

and why taking those out can be beneficial for for a lot of individuals.

Well, both of those foods or the proteins in those foods are a bit difficult to break down and require certain enzymes. And when we don't have the best digestion, maybe our microbiome is a little bit out of balance, which is common in autism, then we're not able to break down those proteins into all the little amino acids.

And so those protein chains, those two in particular mimic opiates in the body and in the brain. So imagine it's like morphine or any of those opiate type substances.

They can get into the body, they can create inflammation and they can directly affect what's happening in the brain. And so that's one reason they're both also very inflammatory to the gut.

So if you already have an inflamed digestive tract maybe based on the microbiome or other factors that's going to contribute to that further. Those are a couple.

The big ones, they affect the immune system they can create. Once you create inflammation in the gut, you can start to create systemic inflammation. And inflammation in the brain is one of the key factors.

And then as we all know, as you talk about all the time, when your gut is inflamed, you're not able to absorb your nutrients properly. And we need those nutrients for our brain.

Yeah. So important. And now a lot of people out there when they think about autism, they think it's just kind of a neurodevelopmental issue. You know, they don't they don't necessarily associate inflammation with it. Right. Natural health.

We talk about a lot of these conditions as you know, basically brain inflammation. This is how that that unique and that individual uniquely expresses higher levels of inflammation in the body.

But for a lot of people, they don't realize that. Can you tie that in? That's a very good point. Oh, and a lot of parents might not notice or realize that the symptoms their child is experiencing might be inflammation based.

So sometimes we see kids injuring themselves self-injurious behavior or, leaning over furniture because their gut hurts or, maybe having a lot of negative behaviors because they can't express themselves properly or they're in pain and they can't say why.

So inflammation is at the core of so many things that there's oxidative stress. That means we're using up all of our good nutrients, means our mitochondria and our cells can't function.

We don't have the energy we need. If our cells can't function, our brain can't function. So there's a lot of reasons why inflammation can have a direct impact on the brain and the behaviors that we see in autism.

Yeah, absolutely. Whenever I whenever I hear about autism, ADHD, chronic anxiety, things like that, I always think the brain's inflamed, even depression, all of these kind of brain conditions, brain fog, fatigue, lethargy.

Okay, I never think okay. That's how their body was just created. It was created like this. Now they may have a tendency, right? We all have kind of unique tendencies for one person.

When they have inflammation, they have eczema. The other person has you know, autism or they have ADHD or behavioral issues or something along those lines.

And sometimes there's a combination, right, that people can have an egg can express. But I think that's important for our listeners to understand that, you know, these are not normal.

This is not we weren't necessarily designed to have these issues. Right. But it's actually the way that our body's expressing itself under the environmental conditions.

Absolutely. And you know, some inflammation is healthy. We need inflammation to fight off viruses and things. It's just that when that goes awry and there's too much of that and we're not able to turn it off.

Maybe we have an autoimmune condition. Maybe we've triggered the inflammasome with something like oxalates or some other thing that's creating chronic inflammation, like an infection.

Then the system goes awry. And when we have that chronic inflammation, that's when we see common disorders, health, chronic health conditions. Yeah. So important I always think about inflammation like a fire in a fireplace.

So in your home on a cold day, the fire in the fireplace a beautiful thing right. Great for the environment. Great aroma that it brings. Warms up the house.

But if you start dumping gasoline on that fire and it starts spreading and starting burning down your walls. Okay, not a good thing, right? And this is what's happening.

Our our modern lifestyle is like dumping gasoline on that fire, causing, you know, the house to start to burn down. And by the time we have these symptoms, the house is starting to burn down and we need to see it as a red flag warning sign and lifestyle changes need to take place.

Great analogy, I love that. Yeah for sure. And so you were talking about gluten free, dairy free. This is oftentimes a good starting place for a lot of parents that that they'll do with their kids, with ADHD, with autism, with a lot of these different types of conditions.

You also mentioned soy free in that, you know, in that study now in your book, you go through a number of different personalized diet.

Why Gluten and Dairy Can Be Problematic

So it would be I think it would, you know, I think as a health practitioner, it would be so easy if it was just okay, gluten free diets and everything is better. Right?

But unfortunately it's just not that easy. And so there's a level of personalization that needs to take place. Absolutely. And sometimes people get amazing results just from gluten free.

But I had a little boy that was only three that didn't have any language. And just doing that diet, he started speaking. He ended up with 200 words in a few months on the diet and so sometimes something like that can really be amazing.

But as you said, sometimes it takes more than that. And when we look at the underlying systems that are affected, we might need to apply a different diet.

That or an additional diet that can directly affect some of those underlying factors. And and, you know, that might be a grain free diet. If somebody's really got an inflamed gut, it might be a ketogenic diet in certain cases.

And maybe certain mitochondrial issues or, you know, whatever might be going on for them. It might be, what we call a low salicylate diet, which can happen when we don't have the right ability to detox certain substances, or our microbiome is out of balance and it's depleting those important nutrients we need for that detoxification.

Yeah, for sure. And that takes us to the next study that you were a part of here, the Journal of Personalized Medicine in in 2023, the ratings of effectiveness of 13 therapeutic diets for autism spectrum disorder.

And you go through this in detail in your book, but can you break that down a little bit? You know, some of the main diets that you used and the effectiveness and what were some of the most effective, of those different diets?

Yes. This was a study where we had about 800 different families who gave their experience using therapeutic

diets, everything from a gluten free and dairy free diet, a specific carbohydrate diet, a paleo diet, ketogenic diet, a variety of different suit elimination, allergy type diets.

We looked at 13 different ones. We found a number of interesting things. The first was that the so this study also was used in other papers that were published, one on nutrient supplements and one on, certain medication, psychiatric and seizure medication specifically, all within the autism spectrum and the paper found that therapeutic diets were statistically significantly better than both of those other things, including supplements, which I was a bit surprised at improving at providing an overall benefit to people so they were better at just overall.

And then compared to psychiatric and seizure medications, they were significantly less likely to create adverse effects. So really just across the board, all of the diets showed benefit.

And all of the diets as a whole were one of the best treatment approaches used for families. So that was very exciting. And then we looked at about 700 different metrics.

Of the different data points. So we looked at each of the diets individually and what their overall benefit was. And we can talk about some of that. And then we looked at each of those diets and the symptom improvements from those diets.

Inflammation, Brain Health, and Personalized Diets

So generally speaking, one of the best diets overall was a healthy diet, which was very exciting. And so, maybe not surprisingly, the number one symptom that it helped improve was health, which makes sense.

But actually I was surprised it was better than, you know, diarrhea, constipation, attention. It was health. So a healthy diet helps you stay healthy.

Imagine that. Well, how did they how did they break down the healthy diet? Like, well, what was that defined as a healthy diet was a diet with, free, low or free of junk food.

So artificial ingredients, sugar, things like that, high in vegetables, protein and whole foods. So that was more of a real food based diet coming off a lot of these processed foods.

Yeah, exactly. Yes. Which is a great first step that anybody I mean everybody should be taking. Yeah, it's absolutely a great first step. In fact, the first two steps of my program in the book are remove the junk food and add healthy foods.

So you've got it from there. And then the the Feingold diet, which is a type of a low salicylate diet. That was another really, effective diet for overall benefit.

And then we we can, you know, again, it depends how I slice and dice up the data. We can find different things. So one of the things we discovered was that different diets were better at helping with different symptoms, which this is where that personalized nutrition aspect comes in.

So as we all have probably seen in the literature for many, many years, the ketogenic diet was the best diet for seizures. We know that. We've known that, but also the ketogenic diet helped with a variety of individual symptoms as well.

It was actually, it was lower in overall benefit. And it had higher adverse effects than others. But in terms of individual symptom improvements, it had some of the highest.

So again, it all depends on what an individual might be looking at. Now that diet is a little bit more challenging. A little more restrictive than other diets.

The gluten free, casein free diet also is a diet did that did very well and helped improve, attention hyperactivity.

Language, you know, things like that as well as the Feingold diet also did well on individual symptom improvements.

A lot of the things which was very exciting that we see in practice. So in my practice, I often see hyperactivity, irritability, aggression, attention improve with the Feingold diet or what I would call a low salicylate diet, because there's a number of different diets that you can do for a low salicylate diet.

We see that in practice, and we saw that in the study as well. So I would say a couple of the highlights were the gluten free, casein free diet, the low salicylate diet, the ketogenic diet and a healthy diet were a few of the highlights in there.

Yeah, that's really good to know. And also, you know, you talked about how the nutrition changes were, you know, they're more effective and less side effects, or they're safer than taking a lot of these medications that people are utilizing.

Now, obviously, it's you know, it's it's you probably have a little bit lower compliance, easier to swallow a pill. Right. Then, then make a lifestyle change is probably the only downside, right?

Making lifestyle change can be tough. It takes, you know, a certain level of motivation, in order to do that. But the fact that it's so safe compared to these medications and more effective, that's something that everybody should realize, when they're starting to do this.

And, you know, I always say that ultimately, you know, your health results are gonna be 80% lifestyle, you know, supplements, maybe 10 or 20%, 80% of that is going to be lifestyle getting your sleep dialed in, your nutrition dialed in movement, sun exposure, light exposure, things like that.

That's also critical here. And you guys are obviously just focusing on the nutrition. And that made a big impact there. Imagine if we if we coupled that with, you know, good sleep, exercise, getting out in the sun, getting out in nature. Right.

You would just get even better and better results there. But you mentioned you mentioned the Feingold, you mentioned Salicylates. And most of my audience is not familiar with that. Yeah.

You break down Salicylates and maybe some of the symptoms that people tend to experience if they do have some sort of a salicylate intolerance. Yes. So this you're right, most people have not heard of this.

And part of that is that these are contained in a lot of really healthy foods that we tend to want to eat, which is also, I think, the reason why people don't suspect that they could be a problem.

Therapeutic Diet Study: Which Diets Help Most

So Salicylates are a naturally they're a type of phenol, which is, you know, we think about polyphenols, we think of, those really good nutrients that we find in colorful fruits and vegetables and things like that, you know, again, where we find them in berries and apples and grapes and herbs and spices and all these wonderfully nutrient dense foods.

So we often think, you know, how could they be a problem? And maybe their child doesn't eat that many vegetables to begin with. So they're eating lots of maybe fruit, and their parent is thinking, great, they're at least they're eating some fresh, you know, produce, which I would agree.

Generally speaking. But if you have a problem breaking down salicylates, then for that individual, these good foods can create irritability, aggression, anxiety, learning difficulties, hyperactivity, sleeping challenges.

And so they can really be very disruptive. I had one client who he was getting very aggressive, and it would just come out of the blue. So it was hard when he'd be working with his education and therapy appointments and

things, you know, he would be lashing out at practice, you know, that his, you know, aides and his, you know, people that were trying to help him.

And so, of course, this is very distressing for his mom. And, well, we really looked at things and I was suspecting Salicylates. So his mom took them out and the aggression was virtually gone.

I mean, overnight for that next month. He had one episode that his mom felt that she could pinpoint to something he'd eaten. So again, the alternative to that which lots of parents, you know, maybe they're not there yet, maybe don't want to go.

There might be medications, to know that potentially food can play a dramatic role in improving that, where they might not have to do some of the things that maybe they don't want to do or that, you know, maybe diet could even be more effective them than they could be.

It's just a very exciting thing to see. So, the low sulfur diet is maybe one of my favorites, in that it's so effective. It's if you look at my book, it's divided into kind of two parts.

The second half is how to customize and personalize diet. And I kind of go step by step on the easiest to do diets that can have the biggest impact. The first one in that section is this is the low salicylate diet.

Because I see so many wonderful improvements, a vast majority of people with autism, as well as ADHD, as well as you can look at IBS, depression in a variety of different conditions.

People have poor salvation, the, challenge breaking down things like salicylates and so, it it's not really surprising, I suppose, that this diet could be so helpful.

When you look at how many are affected and also the underlying factors like the microbiome that can deplete these pathways is also very common in autism.

Now, when you're going on a lower salicylate diet, you're taking out a lot of these, what we consider very healthy foods like blueberries I believe broccoli, you know, stuff like that.

Yes. Now is there hope for these people like do you go on it for let's say six weeks a month, three months, right. Meanwhile you're doing other lifestyle things and maybe supplements, and then you can start to possibly if you're noticing improvements, right, then, start to possibly add some of these foods back in.

What is your experience with that? Yes. My experience is that a vast majority of the time, this diet in particular is something that people can often go back to eating many of these wonderful and some don't need the pain at all.

Some people need the diet for certain foods or certain quantities of these foods that just have that sort of lower threshold than others. But absolutely.

And that's, I think one of the things that maybe sets the book apart a little bit from other approaches is that it's, you know, when you learn about doing a diet, you don't have to learn how to not do the diet or how to not need the diet.

You learn why you need it and how to do it, which is a great first step. But I really talk about why someone might be needing that diet and how can we, as you had mentioned, work on those underlying factors in the background so we can try to improve the intolerance we have to those so we can go back to eating those wonderful foods.

Yeah, I think that's important. I think, you know, in our, in our in our natural health world, we we focus a lot on elimination. And that can be a really important, crucial first step.

But we focus less on building resilience. Right. And I think that and we you know, it's clickbait, to you know, say all lectins are bad, you know, stay away from oxalates are poisoning you.

Right? It's very, very clickbaity. And there may and there's a half truth to it because in some cases they are. But, you know, across the board, 100% of people, that's not really the case.

And then also ultimately, even if somebody is oxalate intolerant, salicylate intolerant, it would be good to build resilience. So their load that triggers inflammation.

You know, instead of let's say if, if they consume two grams of it and that triggered inflammation, what if we got that resilience factor up to where I was ten grams before it triggered inflammation.

That's what we should be trying to do. Right. Exactly. That's exactly it. And so that is one of the things I really try to do, really try to let people know what are some of the nutrients that can be deficient?

What are some of the pathways for which our body creates some of these nutrients that we can boost up? What are some of the factors like infections or the microbiome or toxins that can be depleting these, things?

How can we build a more resilient system? Because the more limited our diet gets, the less nutrient, robust it is, and the more, the lower number of foods that we eat.

So the more likely we could be creating a sensitivity over the long term. So the more foods, the more variety, the better it is from many perspectives.

So that's always my goal. Yeah, absolutely. Now I mentioned oxalates and you talk a lot about oxalates in the book.

Salicylates and Low-Salicylate Diet Benefits

So let's let's talk more about that. Yes. This is another one of those sort of secret I don't want to say secret weapons, but maybe, one of those less known food compounds that can make a really big difference.

So there was a study done. It was a while ago. Now is over ten years ago now. But it was on the on oxalates and autism. And they found that individuals with autism that did not have a history of kidney stones, they were or even, you know, kidney dysfunction, they every single one of them had an arc, had high oxalates either in their urine or their plasma, and in most cases in both and this was very, surprising to oxalate researchers because normally this high level of oxalate causes serious challenges.

And it it is. But people weren't aware of the other types of challenges you can get. Most people think of all the kidney challenges they don't realize can create oxidative stress.

It can create, challenges with the microbiome. It can directly affect the microbiome. It can deplete nutrients, and it can play a factor in our mitochondria.

So every cell in every organ can be slightly diminished when we have an issue with oxalate. So, fatigue, you know, all of that kind of thing. So and where do people get oxalates?

Like what? Where are they coming, what are they and where are they coming from? Yeah, they come from plant foods. They're made by plants as a defense mechanism against, you know, bugs and things like that.

Predators. And they are found in lots of foods. Some of the big ones, spinach, Swiss chard, beets, sweet potatoes, rhubarb. Some things we eat more than others.

The spinach one is a one. Chocolate chia seeds is a big one. Almonds is a big one. So something like almonds. And again, a lot of times what we do is we go to these put health foods because they are dense in nutrients.

Some of these foods are the highest in calcium. Well one of the reasons they are so high oxalate two is oxalate and calcium bind together in nature. So unfortunately sometimes people go looking at spinach and almonds as

high calcium foods, but they get so much oxalate in there that they can't use that calcium.

And then that oxalate, there's so much that it starts binding up other food, other, other, minerals in those foods and create such a challenge for them.

So, yeah, I think that's where a balance can come in. You know, I think sometimes in the health food world, we get a little what, you know, take a little thing and and more is better.

And we have these. Yeah. She actually puddings and chia seeds everything's and almond flour everything's and you can get ten times, 20 times the daily amount of oxalate in a single serving of some of these foods.

Yeah for sure. And now, for, for many people in their microbiome, they have a bacteria oxalate actor from ingest that breaks down actually eats the, the, oxalates and produces all different types of healthy post biotic nutrients to support the gut microbiome and support the, the intestinal lining.

But for many people, they don't have that. And there's a couple other bacteria that that play a role. So depending on their microbiome and of course people with autism, ADHD, you know, one of the main factors is they have disruption, they have a dysbiosis and an abnormal balance.

And they may not have that bacteria or those that the couple of bacteria that really specialize in breaking down oxalates. So when they're consuming, they're just these plant defense chemicals, these crystal form, these crystal compounds are just getting into the system, causing inflammation in the gut, getting out in the bloodstream.

I also heard that Candida can produce oxalates as well. So if we have a yeast overgrowth in our system or Candida overgrowth that can also produce more oxalates, is that the case?

It is the case that a variety of different funguses can produce oxalate. There is a connection with Candida and high oxalate. Some of the question sometimes is is the body trying to get into homeostasis, but it's just a little bit gone awry.

So do we have high candida as a way of trying to help this high oxalate level? It's hard to know. It's not it's not, in the end, healthy. But we do see that oxalate going hand-in-hand with the Candida.

We do know that Aspergillus can produce oxalate. And so yes, we do see some of that. And it's a matter of how do we you know, the microbiome is very complex.

And so, you know, sometimes, you know, we can have a little bit of candida, but is it in its you know, Haifa stage, is it in its, highly virulent stage or is it in a more mild stage?

And, you know, how do all these things affect it? And oxalate also can kill beneficial bacteria. So, you know, some people say, oh, just boost up the microbiome.

Well, oxalate, if it can kill bacteria, we might have to address it from both sides of the spectrum, in order to really get those results. As you were saying earlier with, say, salicylates, sometimes we need to reduce the burden on the bottom body.

That's often explained to practitioners. You know, we want to have a robust diet, but sometimes we really need to take that burden off so that we can work on addressing those underlying systems, boost those back up.

Yeah, I think that's important. And in particular, when we're talking about this conversation, talking about kids with autism, ADHD, adults with anxiety, kids with anxiety, we know that their brain is already inflamed.

So the way I think about it is it's kind of like if you have a sprained ankle, right?

Oxalates, Gut Health, and Nutrient Support

So like, you know, most of us would say, hey, going at going out and going for like a little run is good. But if you have a sprained ankle, you need time to rest and and allow it to recover. Right.

So you actually need, you know non weight bearing right. You need to kind of keep it up and allow it to heal. Well it's kind of the same thing here. You don't want that that mechanical stress on or the stress on the gut because you need time for it to heal.

So the more that we can reduce these things that are over stressing and overwhelming the gut, allowing it to heal and then allowing the blood brain barrier to seal and bringing down overall inflammation.

The better off we're going to be for this long term. You know, we don't want to be sedentary and, you know, keep our ankle up long term, only short term to allow the inflammation to come down.

It's kind of the same thing here with the diet. Absolutely. Yeah. So so we're talking about oxalates right. And so what are some of the things you know we mentioned foods that are high in oxalates.

What are some other things that perhaps can help help support oxalate metabolism in the body. Well, certain vitamins and minerals are important. So, just getting enough calcium and magnesium can help us bind it.

And just wash it out in the stool or flush it out, which is one of the primary ways we avoid having an issue. We want to make sure that our gut is, like you said, good and sealed so that we don't get it leaking in there.

And also, certain vitamin deficiencies can cause us to produce endogenous oxalate or oxalate inside the cell. And really what we want to avoid is getting oxalate inside the cell.

So when we eat it, it has to go through our gut. It has to be not bound to something. It has to not have the good bacteria. It has to have a leaky gut to get into the bloodstream and then get transported into the cell, which is, you know, there's a lot of steps that have to happen for that to happen.

Whereas when it's produced inside the cell, it's already there. And so that is equally, if not more of a challenge. And so there are nutrient deficiencies, certain B vitamins can cause that.

And so. I guess, replenishing the nutrients that it depletes and including the nutrients so that they don't get produced in the first place, is important.

Yeah, for sure. I know citrate also help to bind oxalate. So you can do like a magnesium, calcium or even potassium citrate that can help help pull it out.

And lemon, you know, lemon juice for example, is kind of a natural form of magnesium, potassium citrate. So perhaps some of that you mentioned vitamin B6 right.

That plays a role in oxalate metabolism as well. Absolutely. And yeah the citrate great. It helps prevent crystal formation and things like that. So that's really good.

So a lot of times, like you said, when people do calcium or magnesium, they'll do it in that citrate form, which is great. And yes, I mentioned B vitamins, but you're right, it's B1 and B6, that are two of the ones that are particularly important to have an adequate supply so that the body doesn't convert things into oxalate.

Yeah, that's that's super important. So we talked about those things. How about histamines. Are you seeing that as a factor as well. Histamine is another big one.

There is great work by a doctor Theoharis who looks at histamine and mast cell activation in autism. That is a big factor. And of course, we we have the environmental component of mold can trigger mast cell activation and various sections can trigger it as well.

And so when we have this environment and then we have this, propensity to maybe create inflammation, you know, the mast cells release histamine. And so then his and then our system can get overloaded.

And you know, there are a number of reasons for that, including proper methylation. If we don't have proper methylation and I talk a lot about proper methylation and how to get the nutrients needed for proper methylation, if we don't have it, one of the things that can happen is our body can get overwhelmed by histamine.

We should be able to break it down, but if there's more, then we have the capacity for, then that's when we see a problem. And so one of the ways that we have some direct influence over that is to not consume more coming in from the diet.

So a low histamine diet has been very helpful as well. Yeah. So a big thing with low histamine would be like for example, not doing leftovers, trying to kind of cook your prepare your meals fresh.

And then there's some things that you know are really touted in natural health world, like for example, apple cider vinegar bone broth. You're noticing like if you take some apple cider vinegar and water, you have a headache, right?

Or a skin reaction or something like that. You might be histamine sensitive, right? Bone broth. You drink bone broth and you just had this massive headache.

It probably histamine sensitive. So these are some of the signs. And I know you have questionnaires in the book that kind of help people understand some of the symptoms, some of the experiences they may have that could lead them to one of those, types of elimination diets that may be most beneficial for them.

Yes. So over the years of working with children, I have to figure it out. Many of the common symptoms associated with certain food compounds, and there are some that are very distinct for certain, certain foods.

And what's also interesting is that there are certain what I call symptom clusters. So if someone has fatigue, you might see it on a number of my different lists.

But if you see, you know, fatigue with irritability, hyperactivity, and red cheeks, that might be a very different compound than if you see fatigue with low muscle tone and pain, for example.

And so that's why the finding patterns in those food or in those symptom questionnaires can be helpful for parents. Yeah. And you've been using these questionnaires and kind of tinkering with them for what, 12 over 20 years now.

So you've really kind of helped isolate and and seen these clusters in these patterns. And then utilize these kind of therapeutic diets effectively with that.

Histamine Sensitivity and Symptom Clusters

Absolutely. Yes. I have I've been doing that. And then some of the research that we did also help to highlight some of that. So that was also exciting to, where we discovered some new things.

And we, confirmed some of the other pieces. Yeah. That's key. And then, of course, you know, when somebody goes on one of these elimination diets, takes out histamines or takes out oxalates, and the question is, okay, what foods can I eat and what kind of recipes can I make?

And you address that in the book, because that's always the next question is, all right, I'm taking out a lot of foods now, what can I eat and how do I prepare it?

Yes, that does get tricky. So, there's two things in the book if you're doing multiple diets at one time, I have a chart of some of the foods and what that's when it gets even more complicated.

You're on a low salicylate, low oxalate gluten free diet. Yes, exactly. So I do have some charts in the book for that. And each of the recipes is tagged with all the diets it's compliant with and which can be easily adapted to become compliant.

So yeah, there's 50 recipes that are all some of my favorite client kid friendly recipes, that are rich in nutrients. And then people can go, they're all gluten free, dairy free, and soy free.

And then beyond that, they some are paleo, some are keto, you know, some are low salicylate, whatever it a low histamine. All of those types of things.

Yeah. Yeah for sure. So it's kind of a step by step process like you talked about in the book. You know just going on one of those healthy diets, Mediterranean style diet, real food style diet. Right.

Hopefully you feel a lot better with that. Right. But there's a lot of individuals that are not or they're already doing it. You know, a lot of people that are listening to this podcast that, you know, they're already following a lot of these diets.

And that's where in the deeper personalization really needs to come in. And, you know, your book is really a masterpiece on that. So I recommend everybody go out and check it out.

The Personalized Autism Nutrition Plan nourishing Hope for kids with Autism Spectrum Disorder, ADHD, anxiety and Neurodevelopmental delays. Of course, this book isn't just for kids, right?

Adults will also get a lot of benefit out of it as well. And I'll also, if you know anybody, you know, that's dealing with any of these issues or dealing with it with their kids, this can be a really great eye opener for them.

Again, she showed in these studies that making these nutrition changes was significantly better. So it had better results and much safer than taking the common commonly prescribed medications, for these conditions.

So, you know, you can rest assured it's safer, more effective. Right. And then on top of that, it's going to help your whole body, not just those particular symptoms.

Right. But it's going to lower your overall risk of all cause, you know, chronic disease, risk of diabetes, developing heart disease. So if the whole family gets on it, just because, you know, little Timmy has autism, you know, the dad, you know, father is going to reduce his risk of diabetes and heart disease, lose weight if he needs to optimize his overall metabolic health.

Mom is right. Everybody's going to get healthier. Absolutely. And that was the beginning of the book is all about a good, healthy diet and what that looks like for everybody.

And so absolutely, you know, I just think there's really no downside to eating healthier. And, and then a lot of them, most of us are we have similar genetics.

And so the thing that helps the child often does healthy adults too. I've had more than one mom lose over 50 or 70 pounds. I've had, siblings get rid of their anxiety or their ADHD.

I've had moms or dads get, control over an autoimmune issue or a digestive complaint or something like that.

Recipes, Practical Tips, and Final Takeaways

So often you see great results with the whole family when they do it. Yeah for sure. Well, Julie, you've really written a masterpiece here and I just want to acknowledge all the great work you're doing, publishing these studies on personalized nutrition.

You know, in the natural health world, a lot of people get into kind of their nutrition camp, right? And they're like a

plant based diet for everybody.

Carnivore diet, keto diet. Right. Whatever it is for everybody. And really everybody's different. And so some people may do great on, you know, a carnivore diet or a plant based diet or a low oxalate diet.

Right. But, you know, it's really all about personalization because we're all unique and different. And, you know, you've really written a masterpiece on it.

So thanks so much for that great work. Any last words? Inspiration for people? Well, thank you for all of that. I would just say, you know, keep nourishing hope just, you know, start wherever you are.

If some of these concepts are overwhelming, if you are new to this, if your child is a very picky eater, picky eating is very, very common in autism. And so just start with any little thing that you can maybe it's taking out the junk.

Maybe it's taking out some artificial additives. So anywhere you start is a good place to start. And then little by little, over time, you can make adjustments as you can and and go from there.

So I like to just let people know, you know, you're not alone. And there are things that you can do no matter where you're starting. Yeah. That's important. You don't have to make it.

You know, overnight, right? You can take baby steps moving in the right direction. Yes. Absolutely. Great. Well thanks again Julie guys. Again the book is the Personalized Autism Nutrition Plan.

So check that out on Amazon.com. I'll have a link in the show notes as well. And nourishing hope.com as well for Julie's great website. So all right guys, go ahead and and get that book.

Check out our website and we'll see everybody on a future interview.