Introduction to Integrative Pediatrics

Hello. Welcome back to the Heal Your Thyroid and Reverse Hashimoto's summit. Today I have Dr. Elisa Song. Here she is an M. D. She's an integrative pediatrician, a pediatric functional medicine expert, and a mother to two amazing children.

She is in California where she has her practice. And I would like her to tell you a little bit about herself and introduce herself. So welcome. Thank you, Dr. Jen.

So I am integrative pediatrician. What does that mean? It means that I am very conventionally trained. I trained at NYU School of Medicine and did my pediatric residency at UCSF and really learned how to be a great conventional pediatrician. Yet walking down that path, realizing that and this is now I'm dating myself, this is back in like the late nineties and I've been at this for a while, but then recognizing as I came out of my pediatric residency that we were so ill equipped to really, truly not just provide chronic disease, but also know the foundation to help kids thrive.

It's very different than just kind of preventing living at a level of prevention and living at a level of thriving. And so I sought out and they actually kind of found me.

Every life has its way of doing that. But functional medicine, homoeopathy, acupuncture, herbal medicine, essential oils and I integrate all of that. So that means I don't throw the baby out with the bathwater.

I recognize, for instance, that there is a time and a place for things like antibiotics, yet there are many times where they are unnecessary and even when they are necessary, we need to understand how to do the mop up and the microbiome recovery that will get into that is so essential for helping kids thrive.

So we take the best of whatever worlds we can and we really personalize that care for kids. So that is my passion. I recognize that there aren't a ton of integrative pediatricians out there.

There are more and more. But, you know, sometimes not in time for parents and kids right now. And so that's why I started back in 2016, I guess my online Healthy Kids Happy Kids site to bring that education to parents and practitioners who are looking for that merging. Right.

That evidence based merging of conventional and natural pediatrics. Yeah, you're amazing. And I love that you help kids thrive. It's so important because like you said, it's the best of both worlds because you can't you can't not have conventional medicine.

I mean, kids are a little bit crazy, right? They get strep throat, they break bones. They're they're handfuls I. Yeah. A friend today just was FaceTiming with me.

Her kid had a gouge in the back of his head, and I'm like, Yeah, you have to get staples for like like give him some arnica right now and then it won't hurt as much for the staples.

So that's like it's the best of both, right? You need both. So that's what I love, what Dr. Song does. So I, we're here to talk about autoimmunity and thyroid disease and Hashimoto's.

And I know parents get nervous, especially me. I had a Hashimoto's and I tell my kids, I'm like, Yeah, we're eating a certain way because I don't want you guys to get an autoimmune disease.

So let's kind of break it down. How, how actual common is autoimmunity in children and like, should parents be concerned about it? So yes and no, because here's the thing.

We know that chronic childhood disease is on the rise. And in fact, I would call that the the unspoken epidemic. I mean, we need to really recognize this, right now.

We have over a little over one in two kids with some sort of a chronic health concern. And what do I mean by chronic health concern? And I've been shifting away from calling it chronic to more of a persistent health concern because chronic in a lot of people's minds makes you think that it's permanent, like you always have this and it's just under control.

Right. But we can clear and heal and reverse many of these persistent health problems, even if we're given that diagnosis. But and, you know, just in a couple of years, if we're going on a trajectory, the projections are that over eight and ten kids by 2025 may have a chronic health concern.

Now, where does autoimmunity fit into this? The numbers aren't really clear. You'll see some graphs that are really alarming in the adult population.

How Common Autoimmunity Is in Children

When you look at I mean, it's like the straight line trajectory from like the 1980s on with this huge rise of virtually every single autoimmune disease, Sjogren's, Hashimoto's, lupus, multiple sclerosis, there aren't as clear graphs tracking for pediatrics, but I will tell you it is happening at younger and younger ages, right?

When I check for our globulin and test our practice antibodies. And that is something that I will check, you know, starting right around puberty for, for kids who have a family history of Hashimoto's.

I mean, ACIP positive thyroid globulin antibodies are proxy antibodies in kids as young as maybe nine and doesn't mean they have Hashimoto's yet. Right. This is also what I tell parents.

You can have positive autoimmune antibodies for decades before you have an autoimmune disease. And so this is the reason I check is because that's my my opportunity.

It's our opportunity. It's like this amazing opportunity to say, okay, your child's immune system is showing that they're kind of tipping over to the autoimmune scale.

Now, let's chip it back because we know there are ways that we can do that. And so we are seeing this this this rise of and I'll tell you, this one article that was very alarming to me.

This was, as we're speaking in the fall ish, I think, of 2022 and a antinuclear antibody is a very general autoimmune biomarker for those of you who are familiar with that.

And we know that over the last decades, you know, since the late eighties, that the number of people who have positive A and a markers has been increasing in the United States.

What was really alarming in this study is they can look at different populations where that number is increasing at a faster rate, the fastest growing.

The group with the largest increase in A&E over this study time period were teenagers 12 to 19 years of age, and since the late 1980s. Up until now, their rates have trip fold tripled.

And the authors even note, well, kids genes haven't changed that much in the last 30 years. Right? What's going on? It's not just are genetics. So you can say, all right, we know that genetically grandma has Hashimoto's mom has Hashimoto's aunt has thyroid problems.

It's not our genes alone. It's what we do to help our genes work for us or work against us. Everything to do with how we're living and how we're eating and how we're thinking and how we're sleeping.

So that's why your summit is so important, because this is the message that we need to hear, the parents need to hear who are worried that they're going to their kids are going to go down that road.

We have we do have the power to change our genetic destiny. Yeah. I love what you said about it's an opportunity when you find the little bit of antibodies, you know, it's like our bodies are like S. O. S.

help. Yes, right. There are so many signs and symptoms of our bodies saying this, like even headaches in children. You know, I see a lot of that in my office.

It's not normal. Right. I think the problem is, is we are medicating the symptoms that are alarm signals from our body and we're just medicating them and it's sweeping under the rug.

It's covering them up. So then this autoimmunity or disease is is brewing. And like you said, the the amount of chronic disease in children is it's heartbreaking.

It's heartbreaking for me. You know, I just I see it I see it in kids walking and my my my kids classes, you know, I see it when we're at a park, kids walking around and maybe they're not neuro typical and it breaks my heart.

So yeah I mean I think as parents and those parents watching the summit, I'm so glad you're here because this is the first time you're learning about this stuff.

You can really make a difference at a young age because especially with autoimmunity, it takes years for it to show up. So what you do today really, really matters.

So and it matters I something that kids to I because they learn how to take care of their bodies and their genes and their thyroid and whatever else we're trying to really optimize.

Oh yeah. So I've been doing some cold plunging lately and my, my kids think it's like normal now. You know, it's so funny, but they watch you your kids watch you, they watch what you eat, what you cook.

So. So, yeah, as parents, it's I mean, it's the hardest job I've ever had. I would do residency, like, okay, having children is, is hard. It, it is, it's, it's always something.

So what do you think the biggest three risk factors are for autoimmunity in children that kind of break it down for parents that are like, oh, my gosh, what do I do?

Yeah. So I mean, of course, there there are more than just three. But when I look at like what what are going to be the factors that potentially if we don't intervene right with with our functional medicine integrative pediatric approach could further tip the scale for this child to, you know, tip over into autoimmunity.

And, you know, the number one is really looking at are they optimized in all of their nutrients to help support their healthy immune functioning and support healthy thyroid functioning?

So this is I mean, even for kids who are eating the healthiest diet, right? Even for kids where you're like, well, they're getting a rainbow. They love salads, right? In our world.

And now today's with so many inflammatory and toxic influences that are that we weren't we did not evolve to manage age. Right back in the caveman days, I didn't have a change that much.

So we're so over burdened by this need for more nutrients and many of us can get from our food for a variety of reasons. Right. You know, soil is depleted of micronutrients that we need to get from our plant based foods to support our thyroid and immune system.

You know, we are I mean, many people know that with our standard American diet, the sad diet, you know, we are some of the most overfed under nourished populations in the world.

That goes and it's just getting worse. Right.

Top Risk Factors for Pediatric Autoimmunity

That with the creation of these ultra processed fake foods that I mean, I just read an article this morning that something like 20%, 25% of the elderly are addicted to ultra processed foods right now.

Right. And what are we doing for them? We want to preserve their brains. Right. So the most important nutrient, though, that I look at in terms of autoimmunity and healthy immune response is vitamin D that hands down.

If we can optimize our children's vitamin D levels, our own vitamin D levels, that will go a long way in having a healthy immune response. So why do I say healthy?

It's because we don't want to squash all inflammation, right? Inflammation has gotten a bad rep. It's inflammation is our body's natural response to fighting infection, you know, getting stressed about something, having a cut.

We get a little red and maybe a little, and that's our body. Creating inflammation to fight. Whatever thing we need to resolve is just when that inflammation doesn't come down and simmers at a chronic low level or starts telling our immune system to attack ourselves that we run into problems.

So Vitamin D is, I would say is the master immune regulator. Right. Keeps our immune system healthy, happy, just the right amount of inflamed formation, not too much.

Shut it off when it's done. Okay. So that's number one. And then, you know, a lot people ask, what do I consider a good vitamin D level? Because I do check when I have the opportunity.

And there's a lot of unfortunate controversy around vitamin D levels. But, you know, if you if you were to go to a very conventional lab conquest or Stanford Labs here or LabCorp and whichever lab, you'll see that the range of vitamin D is at least request rate, not thinking about 20 to 100 nanograms per milliliter.

I mean, that's a very wide range. And I'll have many, you know, OB-GYNs or other other docs say, Oh, you're at a 21, you're fine, your normal right. So not even be outright deficient.

But that is way not optimal, especially when you're trying to prevent or reverse autoimmunity and Hashimoto's. And so I mean, I don't I love I love to get my kids up to 60 to 80 and kind of maintain them maybe even higher if they have something else going on.

But, but, you know, checking and just knowing where you're at, optimizing that is really important. I agree with that. And I like my patients to be 50 to 70.

So Dr. Song is in California and I'm in northwest Ohio. So it's really rare for me to get a patient to have a normal vitamin D level that isn't on supplementation in Ohio unless they live in their bank and all their vitamin D in in Florida or something half the year.

Yeah, so but one, one good thing to know for the listeners, vitamin D is so necessary for thyroid hormone synthesis and for the thyroid to work properly.

So you do want to check levels, though, because vitamin D is fat soluble. So you can your body stores it and then it releases it, you know, but some people are just deficient, you know, and we're not getting it from our food as much.

And if you're in cloudy, Ohio, you get it once a week if you're lucky. So in that if you're outside. So I love that. And I do find kids low, especially if they're not just taking a general multivitamin and they're not getting a lot from their food.

So and it's interesting because I mean, I would you would think that in California that our kids would be really chock

full of vitamin D because vitamin D is the sunshine vitamin.

Right. You get it through skin conversion. And, you know, really in the northern hemisphere, the summer is really the only time we're going to stock up as much vitamin D through skin conversion.

But I mean, it's it's alarming, shocking, surprising. Whatever would you say? Surprising to me how many kids are insufficient or outright deficient, like you said, without that supplementation?

And I just think we need so much vitamin D for healthy brains, for healthy immune systems, you know, for healthy everything. Right. Healthy moods. That's even vitamin D even.

You know, there are some studies showing that vitamin D acts as a prebiotic for our gut microbiome in so many different benefits. And we just don't get enough from the sun.

Even kids I check in the middle of the summer, they're running around outside of camp and they have this golden tan color. There's still because of our life forces, I mean, we're just we're sucking up and using all the vitamin D that we have.

And to your point for the listeners, you know, Vitamin D is actually not a vitamin. It was misnamed. Right? It's a pro hormone. So it is the one of the most important starting steps for all of our other hormones.

Right. Like our thyroid hormone and all our sex hormones. So I love that that you explain that for the listeners. Yeah, it's so important. What are some other factors?

So two other factors that I look at, especially when it comes to hormone health. Okay. And this is Hashimoto's even things like, you know, precocious puberty, early puberty, or I've seen more kids with delayed puberty.

I mean, it's just, you know, kind of so I mean, environmental toxicity. I mean, our environment is filled with I'm sure you speakers on this with hormone disruptors you know endocrine disruptors our lives are plastic now.

You know, our cosmetics are filled with parabens and phthalates. I think many people are very savvy now. Are you going to the Environmental Working Group and you'll get skin deep and you get your clean sunscreen and your cosmetics and but still, it's ubiquitous.

What does that mean? We cannot escape it, right? It's in our soil. It's in our water. No matter how we like to. We keep our homes and how green we're living.

This is a world we're living in. And sadly, this is a world that we haven't as a society have created. So we need to make sure that wherever we can, we're reducing those sources of toxicity, right?

The sources of endocrine disruptors. And they can come in kids toys in you know, in kids clothing, in your makeup, in your skin and hair care products.

So just being savvy about it and then understanding that we just need to make detox a lifestyle. Right. Kids in general, the reason why they're more susceptible to environmental toxins is because, I mean, literally pound for pound, adult child, kids eat more food.

I think like maybe two and a half to three times more food. They drink more water, they breathe more air. So they're getting all of these different sources of toxic.

Their skin is thinner and more more porous. So they absorb anything you put on their skin more easily. So they're just they're absorbing more. And then they have these, you know, critical times of development for their gut, their brain, their hormones, their immune system, where toxins could make a really big impact.

So the more we can do to just on a daily basis say, okay, look, we're going to help my kids clear out these toxins in

the best way that we can. What does that mean?

They need to be peeing, pooping and sweating a lot every day. Right? So we need to make sure they're hydrated because. Why? Because that's how we get rid of our toxins, right?

So make sure they're hydrated. I love making sure that kids are drinking fluids with electrolytes. Not those fluorescent green rehydration drinks you're seeing, but things like coconut water.

Because the minerals help us detoxify. Red minerals are essential. For that, we need to poop. Right? Constipation is a multibillion dollar health care industry in the United States.

Right. And Miralax is not the answer. And so we need to make sure kids are getting it enough fiber. There might be magnesium supplementation. Kids are very insufficient in magnesium.

So pooping and excreting your toxins that this is especially important for hormones because many of our our estrogen our quote bad estrogen is excreted through our poop that we need to sweat.

We have we have a movement deficit in our society. Right. And especially during the pandemic and initially when life was shutdown, I mean, we were like my favorite family hikes every day, right?

Then Zoom school started and butts in seats like telehealth visits all day long. Right. And for some kids, that hasn't changed. And so we need to get moving and sweating and really kids should be moving and sweating at least an hour a day, not necessarily consecutively, but they should be they should be huffing and puffing.

So that's number two, right? Do what we can to minimize our toxic exposures, clear out the toxins that we would do, get exposed to just by living in our world every day.

Right. We don't want to live in a world in fear, but we need to understand how we can empower ourselves. Oh, I forgot. Epsom salt. That's another great way. I love Epsom salt.

That's a supplement your kids don't have to take. But Epsom salts are magnesium sulfate. You sit in that bath, first of all, it's really calming and relaxing, but magnesium and sulfate gets absorbed through your skin.

Magnesium helps with calming, and then the sulfate enhances glue to fire, which is our master antioxidant and detoxification compound. So lots of great things when we do Epsom salt bass.

Yeah, and that's an easy one for younger kids too, because it's tough and yes. So Miralax, your kids are not deficient in Miralax, but anyway, that there there are a lot of natural alternatives.

But talk to your kids about poop. You know, that's the. One. Thing, you know, make it like a funny conversation, like, how's your poop? My kids will say if they have a asked poop, they'll say, you know, I had a messy poop.

And I'm like, Oh, it's because all the stuff you got over the holidays at my parents house, you know? So yeah. But if you're if you're 80, 20, you know, just like, don't sweat the small stuff, just do what you can at your house.

You're not going to be able to control when they're at their friend's house and at school or grandparents. Well. Well, we're going to dove into because that's the third thing, right, is optimizing gut health.

That is the foundation for all of your health. And, you know, just talking about the 8020 rule, it is important, right? It is important, as we know, more and more about the factors that can affect our health and our kids health.

It's very easy for us as parents, as moms to say, okay, never this. No, you can't have that. You know, we we get our grandmas case. You know what? Let's go over that.

It's you know, I have to say, I'm not I was like that in the beginning to. Right. You kind of go swing and then then

you realize, I think there's a there's a centered place that we can come from.

And it's really important because we don't want our kids having unhealthy relationships with food in their environment. We don't want them to feel deprived.

We want them to feel empowered. Right.

Gut Health, Autoimmunity, and Hashimoto's

And sometimes a psychological stress around what you should be avoiding in your food and your environment is bigger, causes more inflammation than if you just had that thing right.

And so we just we it's all about balance. I agree with that. I will have patients come to me and maybe they saw someone before me and they were put on super restrictive diets and they didn't get better.

And I'm like, I if this is going to be the dealbreaker or cause you stress, that's going to be worse than your gut health and especially with kids, you cannot be unrealistic with what a child is going to do.

And you probably have these conversations every day with your patients. You sit across from them like, what are you willing to do? What is a dealbreaker?

You need to have pizza like with your baseball team on Friday nights. Well, what can we do to work around that? So I think that for parenting and trying to navigate this, you have to be really realistic and cut some slack, not be to too hard on them for sure.

It's so important. And you know what? With your kid, like, it's one thing for a grown ups to say, Great, I'm going to go to elimination diet. I'm going to get really good and I'm going to get over the dairy, the sugar, the whatever it is.

And it's going to happen tomorrow. At some point. Some adults can do that easy, right? Most adults camera takes a little prep, but for kids, it's not a race.

Right. This is we want them to have healthy habits for a life time. So if it takes them months or a year, that's okay. You just keep planting the seeds, you educate them and you make it relevant for them.

I mean, I'm going to tell you, I had this one teenager who's she's amazing, but she's showing signs of autoimmunity and it runs very strongly in her family.

But she's a teenager. She's 17. Right. So we're going through her diet and we're just kind of thinking through what she's eating, how she's eating, where can we intervene?

And she said, well, I start off every morning with a Red Bull. That's that's my breakfast. Right. And I looked at and I said, is there any way that we're going to be able to change that right now?

And she said honestly, she said no, because that's one thing. I that's one thing I look forward to my wife. Right. And so I said, all right, well, I'm not going to say never, ever.

I'm going to say not yet. And we're going to just keep having this conversation. Right. So it's not a we never want to come to a place where we make people feel guilty about their choices.

We just let them know, okay, this is this is how this could be affecting your body. I will let you sit with that. And then we're going to keep talking about it.

It's it's it's a journey. It's a journey. Absolutely. I love that, especially with children. It's it's a journey for sure. So hypocrisy said all disease starts in the gut.

And I, I say that all the time to my patients. The gut is so important. So can you explain how this applies to children, especially relating to autoimmune and Hashimoto's?

Yeah, so absolutely. Well, you know, let's take a step back because many of your listeners already are familiar with the importance of gut health and may have heard terms like leaky gut or gut dysbiosis.

But let's make it really relevant for children. When children are born, they have a clean slate in their gut, right. Meaning that, I mean, it's come into question whether or not their gut is really completely sterile when they're born.

But we know that mama's gut microbiome and vaginal microbiome and the way babies are birthed, fabulous C-section or the way that they're fed, you know, breast or formula has a big impact on how that baby's gut microbiome starts off in life and the path of development that their gut microbiome takes.

So why is that important? Well, our gut microbiome, as it's shaping and developing, has an intimate connection, a direct two way highway to our brain called the vagus nerve.

And for babies with their developing brain, their gut microbiome plays an essential role in how their brain actually connects and makes us new synapses and really grows and explodes.

And all of those connections. The same thing is happening with your gut and immune system connection. Their immune system comes out naive to the world.

What does that mean? They don't know what's friend or foe or what they should attack or not attack their gut. Microbes senses what's passing through. And if you think about it, we are one big long tube from from mouth all the way down to the other end.

And so our gut is actually our largest interface with what's passing through our world, right? That what we're swallow, what we eat, that the the microbes, you know, the pathogens, viruses, bacteria, the environmental toxins were exposed to.

They all travel through our guts. 70% of our immune system lies in our gut. So as a baby, as a child, as a even as a teenager, as far as their immune system is developing, what happens with the gut is that gut microbiome senses what's going on.

Right? Let's say it's a piece of gluten and it passes through that transit system, doesn't really know what to do with that piece of gluten. And so your microbiome gets it.

Decide, communicate with your blood's immune system and say, okay, this is so I want you to attack that and clear that. Let's take a different let's say a stomach virus.

Okay. Or a bacteria like Klebsiella. Okay. We set our resistance as I don't like you, not a good thing tags it as foe. So it's attacking or let's say, you know, it's a it's a piece of I don't know, let's say an apple comes through and your gut senses it and says, oh, well, this is a friend, I'm going to suggest you let you pass and get all the nutrients and no problem.

Okay, if your gut is imbalanced. Okay. Dysregulated is abnormal bugs in there. Or maybe there's a little bit of a leaky ness that's happening and babies actually have more of a leaky gut than adults.

Right. And that same bacteria, that Klebsiella bacteria comes through and your immune system says, oh, this is foe, I'm going to attack. But then because your immune system is just regular, your gut microbiome disregulated tells you this is the wrong thing.

It says, Now you should attack me, you should attack my thyroid, you should attack my joints. So we know that there are certain bacteria in the gut that can trigger or worsen autoimmunity.

We know that having a leaky gut that's perpetuated because maybe we're in the wrong foods or we have exposed to toxins or too much psychological stress can also predispose our children to autoimmunity.

So when it comes to immune modulation, balance and autoimmune risk, we want to make sure that your child's gut is in the healthiest state possible so that they can resolve their autoimmunity, resolve their Hashimoto's.

I had this talk about Klebsiella and this is related to another to other unfortunately common autoimmune illnesses I'm seeing in kids is Crohn's disease and juvenile arthritis and doing all of this functional medicine work, the one thing that put that child into remission was when we cleared the gut of Klebsiella.

That's the one thing that tip the scale, keeps them in remission. And now, you know, she's a teacher in Arkansas doing amazingly well, like no problems.

Right. So the gut is really powerful. So all disease starts in the gut and by the flip. But the flip side, on the flip side, all health starts in the gut.

So we also want to look at our gut as, you know, what can we do to help our gut thrive? Our kids can thrive. Yes, I love that. Positive flip health begins in the gut.

You should tell hypocrisies that. No. Yeah. But I really. I get really frustrated when, you know, it's like normal mom talk for people to be like, Oh, my kid's constipated and they're on Pepcid and you know, and I was there too, you know, 15 years ago.

I didn't I didn't know we're not taught this in conventional medicine. So it's really important for parents to look at the gut health if something's off, whether it's swallowing, whether it's a stomach ache, whether it's constipation, whether it's bloating, whether it's stomach cramps.

That is a warning sign. And that's a warning sign that something's off. And not only worried about diseases in the future, but, you know, your your immune health right now.

And I was hoping during the pandemic that everyone would double down on health and stop eating fast food and stop drinking a lot of alcohol and, you know, all this stuff to help their gut health.

And it actually I feel like everyone's gut health got worse. Yeah, I think so. I mean, for so many reasons, right? I mean, just not moving their bodies, stressing about X, Y or Z.

And I mean, I have some of who took that opportunity to help cook every meal and we have a big slide and and many, many kids left the pandemic in a in a much less healthy state, unfortunately.

I mean, you know, that's it's just so now it's time it's time to get back on track, right? Yes. And they can they can learn from from you in the summit.

So when we look at how important kids gut microbiome is to their developing immune systems and their brains, what are the biggest factors that impact their gut microbiomes?

And how can parents and kids optimize the kids gut microbiome? Yeah, so I always like to think of like, what can I add in what can I take away? Right.

There's different for some kids the adding it is harder than making these simple swaps. Right. And I shouldn't say take away, but like what are the healthy swaps we can do?

Okay. Now what I look at in this is, you know, there's a group of of things we'd like to try to avoid when possible. And then I call the microbiome mischief makers because they do they kind of wreak havoc on our gut microbiome.

We just need to be aware of them and honestly, the number one acute disruptor to attack gut microbiome and the

kind of across the board the biggest disruptor are antibiotic x, right.

And so and there are times when antibiotics are necessary 100% right. And when they are, you take them without hesitation. Right. And you know how to recover your gut microbiome afterwards.

But most parents don't know the disruption that that antibiotics can do to your chest gut microbiome and the downstream effects on the developing immune system in their developing brains.

And so this is just for parents to know if your kid's a B, that antibiotics do the mop up that right chances are your child needs a little bit more support and end at work with your pediatrician.

Ask them, is this really necessary? I mean, there's a whole list of questions I have I give to parents to, you know, if they have if they're coming from other places in another primary care doctor to know, like, is this really necessary?

Because what they showed that physicians were more likely to prescribe antibiotics when they thought their patients wanted them, even when they thought antibodies were totally necessary because it was a viral condition.

Right. So if they know your question, you're like, oh, I'm just wondering, doc, you know, in a very respectful way. I'm just is just do you think it's really necessary?

Like what would are there other alternatives? Then they might say, you know, actually, yeah, your kid is an erratic and looks rad, but you can wait, watch and see.

And you know, let's let's hold off them. So just ask them but that I just if an and if you had antibodies while you're pregnant or you're or during labor and delivery or your child has had antibiotics, especially in those early years of life, I would recommend working with a functional medicine doctors to see what kind of mop up has to happen, because we know that antibiotic, for instance, having antibiotics as a toddler can increase your child's risk of later mental health concerns up to 50%.

Right. So and even there's one say that looked at giving babies under six months of age, antibiotics, fantastic medications. And by the time they were four, they had a significantly increased risk of every allergic diseases like eczema, asthma and allergy.

So I don't say that to scare parents, but just to know, okay, we have this knowledge now. We need to know what we can do to either prevent that from happening or reverse that if your child's already having those right.

And then the other big, big microbiome mischief maker that if we can just swap out right. Would make a huge difference is when we talk about these ultra processed foods.

What is it about ultra processed foods? It is the the the the scary amount of FDA approved food additives. Okay. Now I'm going to talk specifically about the emulsifiers.

Emulsifiers are what? Keep our food together, prevent them from being in a getting into a goopy mess that an infant liquid ready to feed formula found and found in ice creams, found in yogurts.

If we're not looking out for them. And emulsifiers inserted like this in Japan have been directly correlated with the increase in the population. Rates of autoimmunity and emulsifiers can directly cause leaky gut directly cause autoimmunity.

So we just look at our be a savvy label reader, right? If you are craving ice cream, great. Look at I just looked at these labels. BRIERS No, but Haagen-Dazs are like, you know, your organic AB.

Strauss Great. They don't have mono diglycerides polysorbate 80, you know, mottoes. So you see those chemicals just avoid them and swap.

Repairing the Gut After Antibiotics and Food Triggers

I give an example, my kid, my son right now has his friends love Takis, which are the roll tortilla chips, fiery lime, bright red dye number 40. You know, it's artificial flavors.

I'm like, oh, gosh, I just can't do it. So what's a healthier swap so he can feel like he's having some chips with his friend? Trader Joe's has a rolled tortilla chips.

That's a better swap. Even better are Pakis, AQI. They have their version, which is even cleaner. So just looking at the label, you can have these quote treats make them healthier.

Swaps are going to disrupt your gut microbiome. That would be if your kids learn how to read labels and B their gut friend. Right. They will have so much better health, lifelong, you know, prevent the autoimmune mapping, prevent those, you know, chronic health concerns.

Because let's face it, I mean, they're going to be downtown with their friends at middle school, hanging out with their friends in high school, having, you know, going out and college without you.

Right. And so we need to help them know how to make healthy choices that they feel good about and that taste good to them. Right? Yes. The swaps are the talkies.

So I have a high schooler and all these and yet Trader Joe's. So all these has a die free version to now still have sunflower oil. But, you know, does it have to be perfect?

Are they going to be eating takis breakfast, lunch and dinner? No. You tell them it's it's for a treat when you're with your friends. And the funny thing is, I don't know if this was like it for your son, but my daughter's friends, they they liked it better.

They were like, oh, this this tastes even better. So it's it's really hard, you know, and swapping things so your kids don't feel left out or, you know, different from other kids, I think makes it a lot easier.

But teaching them about your gut health and, you know, like my husband will eat gluten and then he'll have stomach ache and maybe diarrhea. And I it's a teaching moment, so you can use these as teaching moments like daddy doesn't feel good because he overdid it with, you know, like you said, artificial flavors and or coloring and stuff like that.

So having a conversation with your kids about it, how did you feel after you crashed from eating that candy at school or whatnot? So definitely it's not easy.

No, not easy. So and I and I talked to and, you know, I love I love your point. We have to make it better for them. It is a great teaching moment. And we just we have them observe, I would say.

Did you notice that it was harder, like you just were frustrated on the soccer field because you weren't scoring as well. Do you think it could have been maybe from like that huge bowl of whatever you had the night before or.

Huh? Okay. Your skin's breaking out right now, right? As a teenager, you're not really happy about it. Do you think from whatever you eat the day before or two weeks before, whatever it is?

Right. And so make you helping them make that connection is really important and that, you know, and it's not just about what they sell, but, you know, what they swap into, but also teaching them about what is going to support their gut microbiome and why it's relevant for them.

You know, if they want to be an amazing violin player or they want to remember their play lines or they want to be the fastest on the lacrosse field, whatever it is, chances are optimizing their gut microbiome will help them get there.

And so I talk to my kids about, you know, what is going to feed are good cutbacks. Right. And that's going to be your fiber, fermented foods and phytonutrients.

You just get in a variety of plants whatever way you can. Yeah. If your kids are picky with even making that, like if your kids love cauliflower, even getting in like having the white covered but also getting purple cauliflower and getting the green romesco that still gives different phytonutrients, right?

So we can always think about how do we just move them one step closer to how having a little more fiber, having a more variety of phytonutrients. I Now what if a parent already the kid had antibiotics.

They think their gut is out of balance. I know that my seven year old finally got strep throat. It was the first time he was ever on antibiotics. And I was like, Oh, because it was not, you know, it's the first time at seven years old where I know my parents growing up, they they took me to the urgent care and I got a Z pack and they're like, we're doing something right.

So I think that it's hard for parents because you want to do something when your kid's sick. But sometimes an antibiotic is not the answer. So when that gut might be imbalanced, or if an adult thinks that their child's gut is imbalanced or they've had an antibiotic in the past, like what can they do?

Is is their gut messed up forever or there's hope, right? So there's always hope. Yeah. Otherwise we would be talking, right? There's always hope. Now I will say, I mean, your gut microbiome has a certain resilience in that it tends to want to move back to the state that it was in before you had those antibiotics or you had whatever it is.

So ideally, you start off with a healthy gut microbiome, right? And making sure that you're prioritizing that as your kids get older. But let's say we did it right or or you know, they're showing signs that even after the antibiotics, their gut microbiome seems to persistently be about what does that mean?

What signs could you have we've mentioned some of that. Any tummy symptom, right. Constipation, reflux, tummy aches, even diarrhea, bloating. But it could be non GI symptoms too.

Like you mentioned earlier, the headaches I skip shows a very commonly have a skin rashes, eczema you know even occasional hives or mood. I mean, it shows a lot in kids moods, behaviors, you know, sleep problems.

So that might be especially if it changed their antibiotics. And so, I mean, there is a whole, quote, leaky gut protocol. I mean, a function of medicine. We call it the 5 hours.

And there's a simplified way to do it for kids. But essentially I don't know some of the talking about this on the summit already but we're taking and I, I, I think about it and I call the gut reset.

So e t the first ask is you still inhale their gut, right? You remove the things that are irritating, which are usually the foods. And when you have autoimmunity, critically important to get rid of or that's how are you hearing maybe and definitely the gluten and the dairy, right.

As a gluten is number one. I've had kids I had a kiddo with attack that process antibodies I mean like I mean 900 right. And thyroid globulin antibodies in like the seventies.

I mean really high zero now zero guys after taking out the gluten and healing her gut her thyroid numbers which are pretty poor for 83 all reverses which were really good.

So we're like, okay she doesn't Hashimoto's yet, but we want to prevent her from doing that. She was really committed because she had seen her mother going through her thyroid journey and that and not all kids are that committed.

But it took I mean, it did take 100%. And we can tell right when she has those little blue streaks, right? Let's say, you know, birthday parties or whatever she has a feel good.

Her thyroid numbers start to get not so good. Her antibodies creep up, not into the positive Hashimoto's range, but they they start to creep up. And so now she's so she's amazing.

She's like, I recognize how I feel, you know, I gluten and I don't want it I don't so remove the foods that are sensitive and then we repair gut lining with things like glutamine, fish oil and zinc oxide.

My top three gut repair nutrients. I'll often add quercetin because it's such an amazing antioxidant and you know, histamine, a mast cells are often implicated to try to heal the leaky gut.

So that's the piece of the set. The reset e is eliminate a limiting gut dysbiosis. And you might need a function medicine doctor to do some stool analysis to say, hey, look what's in there that we need to clear out other parasites.

Are there is there Klebsiella? Is there something else that shouldn't be there? And then the T and set is for transforming the gut microbiome. And what does that mean? Right.

Because we can't just we think, oh, we'll just so probiotics. So a hundred billion, trillion, 900 billion, whatever it is. But, you know, we're all about like more of our more in the states.

But transforming your gut microbiome means not just, you know, throwing. It's like thinking like Jack in the magic beans because I think you throw these beans on the ground and all of a sudden you can have this amazing stock, right?

That doesn't happen with probiotics. They need the right environment to grow. And that's what the transformation is. We need the probiotics, whether it's probiotics, supplements or that's your fiber in your foods.

Right. And we need your probiotics. Fermented foods will pack more bang for the buck in restoring gut microbial diversity than that, even fiber or probiotic supplements.

Okay. And we need to restore that gut brain connection, right? That vagus nerve connection. This is really key because we're living in a state of high stress, you know, sympathetic fight or flight.

Your gut microbiome is not going to be able to maintain a healthy, recovered level and. Why is that? Because we know it's a two way street. Your gut health informs your brain, right?

Because all of those good neurotransmitters support healthy brain. However, we also know that having a healthy vagus nerve and optimal heart rate variability.

Right? That's what's measured in your ordering. Having a healthy vagus nerve can optimize your gut microbiome. And get this. The studies that showed it's in dependent from dietary intake, right?

So I'm not saying eat all the crap you want, but even if your kid's diet is not exactly where you might like it to be, just by optimizing their heart rate variability, improving vagus nerve function, improving stress management.

That's what this is all about. Mindfulness of mindset work. That is probably the most powerful medicine you can give to your child to support a healthy gut microbiome.

And guess what? It's free, right? That like anyone could do that we just we just have to make it as important a prescription as any supplement or medication that we're that we are prescribing.

Vagus Nerve Tools for Kids

I love it because that's so important. The vagus nerve. So what are some simple ways that kids can engage their vagus nerve to optimize their gut immune and their gut brain?

Yeah. So I love that. I mean, there are there are certain apps, you know, for parents who are who love apps. I mean, I take there used to be really great kids, but that is no longer so sad.

But their insight timer is a free app with meditation instructors, you know, from around the world, Tom has has free up paid ones, but they're really good children's meditations and mindfulness app programs, exercises there.

And then oak like the oak tree, a middle school actually told me about the Oak app and loved it. It's a breathing app. So, so that's a great way if you need to be a little more guided.

Okay. But, but there are a few things you could do at home. The first thing is just teach your child to read with their diaphragm called diaphragmatic breathing or belly breathing.

And that's really a great way. It's been shown to improve heart rate variability and. Well, we breathe your belly, keep your shoulders down, or imagine there's a balloon in our belly and we're breathing as we inhale or the balloon expands and as we exhale, the balloon deflates without moving our shoulders.

Okay. This is something that's really hard for adults to do. Even so, you practice together. But just by slowing down spending 5 minutes Lester Belly breathing together.

It's a great way to engage your vagus nerve and that's something you try to do. Even if they're sitting at their desk in school kind of worried about the tests they're about to take, just start belly breathing and they'll be able to stay more focused and calm.

I have another one that I love is is a five senses meditation, but I call it the stop look and listen because a lot of kids learn that when they're crossing the street and this is, you know, any time we can help our kids stop, regulate and be mindful, that's an immediate boost to their vagus nerve.

And this will serve them for the rest of their life. In fact, some studies have looked at, well, what does it take to become a successful adult? One factor is the ability to stop and regulate, read, stop and think before you do.

How many times we tell that to our kids? Right. But now we're doing this on purpose. We can do it when you're walking to school. So the first part of it is to stop what you're doing.

Right? Let's say you're walking to school. Hey, honey, let's just stop for a couple of minutes and give yourself permission to just put down your phone, stop doing what you're doing, and be have a mindful moment.

And then when we look, we're looking with all of our senses and we close our eyes first because our visual input is the one we use the most every day.

And we just ask your child, okay, with your eyes closed, what do you hear? And you just notice you might hear the birds chirping in the tree. You might hear the car that just went by.

And then we ask, What do you smell? I think maybe there's not a chimney from the neighbor's house or they smell the fresh cut grass. What do you taste in your mouth?

Is it the breakfast you just had? Or maybe it's somebody toothpaste because you should brush your teeth, right? What do you feel on your skin? Are you feeling the hair just blowing against your back in the wind or do you feel maybe the weight of the backpack straps on your back and then we open our eyes and what do you see?

And you might see things that you've never noticed before on that same block every day to school. And then finally, the listen is listening to your body and your brain and noticing how you feel and what you're thinking in that moment.

So that could take a couple of minutes. Right. But if you if you show your child how to stop and be present in that moment, you're engaging their vagus nerve and you're giving them tools that they can use for the rest of their life.

There's many others, but I would say those are the simplest let's start with. Those are great. And like you said, a lot of adults need this also for sure.

So good to do with your kids. This has been such a great talk, so, so many nuggets of information and advice for. Parents, thank you so much for being here.

And Dr. Song, you have some exciting things coming up. How can everyone find you? Learn more, take your programs. So the best way to find me.

Where to Find Dr. Song and Her Resources

You know, we have all sorts of free and not free family members that that are a part of our lives. So the best way to find me is on my well a couple of different ways.

So my healthy kids Happy Kids blog is healthykidshappykids.com and that's where I write articles and share information. You can find out more about my programs there and Instagram that's healthy kids_Happy Kids where I share lots of great pearls and just some about my life lessons.

You can learn from my mistakes. And also Facebook. You can search for healthy kids, happy kids. So those are the best ways to find me. And the exciting news as this airs, I am getting ready to launch my publish my first book.

We don't have a title yet, but it is right now, as Jenny and I are speaking in the hands of HarperCollins editing team, and I cannot wait to share it with the world.

It's all about how to help parents create that microbiome magic for their kids. So really looking forward to sharing that this should be coming out early 2024.

So yeah, just connect with me and I'll keep you posted on when it comes out. Thank you so much and I'm so excited for you and grateful for everything you share.

Jenny for having me.