Microbiome Magic: How Gut Health Protects Kids from Autoimmunity with Dr. Elisa Song Transcript

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Introduction to Dr. Elisa Song

Have you ever heard of microbiome magic or how gut and immune resistance can support our health? Or have you heard the term canaries in a coal mine? You're about to.

Welcome to the Everyday Ancestral Podcast. I'm your host, James Berry. My next guest is Dr. Elisa Song. She is a Stanford, NYU and UCSF trained integrative pediatrician, a pediatric functional medicine expert and a mom of two thriving kids.

In this episode, she shares how science, holistic wisdom and real life parenting can transform the future for our kids I learned so much and I can't wait to hear from you what you get out of this Episode.

Please enjoy Dr. Elise's song. So I wanna first start though, like what got you into medicine? Was this something you wanted to be when you were a little girl or was there some health episode that happened that kind of propelled you in to it?

Yeah. I mean, I, knock on wood, never had any health episode for me or my family that propelled me into medicine. Especially that, propelling me to integrative medicine and functional medicine because I think that's the story for a lot of practitioners who've done the conventional route and then all of a sudden they can't find answers for either themselves or kids, their parents or whomever.

That wasn't my story, which I'm so grateful for. As a kid I just loved taking care of things and people. I mean, I loved babysitting and I actually had this vision that I was going to be a veterinarian.

And I had the vision of living in this ginormous barn and having one of every single animal in the world. and taking care of them. And when I realized that that probably wasn't going to happen, I thought, well, what else could I do that would be similar, where I would feel like I'm really taking of and nurturing these little creatures.

So here I am. I ended up as a pediatrician.

From Childhood Curiosity to Pediatric Medicine

Well, it's so incredible, though, about how you are a paediatrician is that it seems like you're really finding the balance between Western medicine and, you know, that functional or integrative medicine, the more holistic medicine.

What got you on that path? Because I imagine you went down the normal trajectory, right, initially? Yeah. Well, you know, when I was at Stanford as an undergrad and I wasn't at that point was not going to go into medicine because my mom was an OB-GYN and i just saw how hard she worked.

I mean, she delivered all of her own babies. Her office was attached to our house and You know, she made time every night to stop her office hours and have family dinners with us, which in retrospect, I'm like, wow, that was amazing that she did that.

But that wasn't the lifestyle that I really wanted. So I kind of discounted medicine and and I still want to work with kids. And I was going to be a public children's public advocate and go to law school and fight for children's civil rights.

And I had this big vision of, you know, being in DC and making a huge difference for kids in that way. But then I

actually, my junior year, after I'd taken the LSATs, I came across this flyer that was just in one of those telephone poles and I looked at it and it said, annual conference of the American Holistic Medical Association.

And this was back in the late 80s and I thought, what is holistic medicine? Like I'd never heard that phrase before, right? And back then it was also called alternative medicine.

So whatever got me as a junior to drive down to the Santa Clara Convention Center and attend this conference, I think it was just the path I was meant to take because my mind was totally blown.

I heard from folks who were just starting to get known like Andrew Weil, Deepak Chopra, Joan Borosenko. And I remember I came home and I called my mom and said, you know what?

I want to become a naturopathic doctor. And she, it was kind of quiet for a little bit. And, and she said, what is that? And that was kinda the response I got from, from I mean, again, late 80s.

I actually called bestseer and got an application, but none of my friends or family had heard of naturopathy. they never discouraged me, but they also never really were kind of fully like, yeah, that's the right way to go.

And the refrain I got was maybe go to medical school first, and then you can kind sort it out. So that is what I did. All through medical though, I kind paved little ways to get a little integrative, holistic medicine in my path.

As a medical student, actually at NYU, started the holistic medical student chapter in our medical school. And in residency, I created a little elective for myself in rheumatology, immunology on integrative pediatrics and was able to shadow a whole bunch of practitioners in San Francisco, like chiropractors and osteopaths and acupuncturists, and see that there was a different way that we could really do things, not an alternative way, completely separate way but really try to marry the best of all worlds, knowing that each modality has its benefits but also its limitations.

And now we're kind of up against really seeing all of the limitations in conventional pediatrics, which can be life-saving for acute conditions, but for the chronic conditions that are really taking over our children's physical, immune, and mental health, conventional pediatrics doesn't have the answers and we need to look at root cause functional medicine and integrative approaches.

I wanna go into what chronic illnesses we're seeing in kids these days. But before we do, I just wanna touch base on something you brought up, which is that a lot of your colleagues or a lotta the people you're in medical school didn't really understand or kinda didn' view medicine in the way you were.

Why do you think There is such, maybe resistance is the wrong word, because that's a judgment, but there is kind of a resistance to looking at medicine in a different way, as you said.

It doesn't have to be exclusively different, just including these other modalities.

Integrative Pediatrics and Medical Resistance

I'm just curious, why do you think that is in the medical world? Is it just simply that they don't have the awareness because it's not in their programs?

Or do think it is a literal resistance of like, no, this is wrong and we're right? I think its a little bit of both and depending on the person. you know, one of the things as I was starting out, and I started my practice in 2004 as an integrated pediatric practice.

And I certainly got a lot of, you Pushback, negative comments, definitely was not supported by the larger pediatric population as a whole. And yet there were people who, pediatric colleagues who came to me saying, wow, I really admire what you're doing and thinking outside of the box.

Interestingly, it was a lot of much older pediatricians Yeah, we've kind of seen the evolution of pediatrics and

seeing, okay, that humbleness that comes with experience, That we don't have all the answers, right?

And it was really a lot of times the younger, maybe fresh out of residency or even the medical students and residents who, you know, were not so much opposed, but not as open-minded to the fact that there could be another way and to accept that we don't know everything yet and we never will.

And we always need to maintain that open mind of scientific inquiry and questioning, are we still doing the right thing? And I'm really just so, I think honored and blessed to know a growing number of pediatric practitioners, nurse practitioners physician assistants, pediatricians, you know, MDs, DOs who are starting to think outside the box and have the courage to say, You know I am really grateful for my conventional training.

It has served me well and it continues to serve my patients well. at a certain level and now we need to dive deeper. And so it's growing. It's going to take some time and we're not quite there yet.

But I've had, you know, with my book that came out last year, Healthy Kids, Happy Kids. I never ever dreamed that this would be possible. universities like UCLA and UC San Diego and a nurse practitioner school in Minnesota reach out and say that they're having their pediatric trainees read my book.

because it's grounded in science, yet very, very practical and meant initially for parents, but really for practitioners to open their eyes and see that there is another way that we can address, as we mentioned, this rising crisis of chronic childhood disease that our kids are facing.

Absolutely. And one last question before we go there, which is if you could, change the medical system where, you know, the education piece of it, where people are learning at that learning stage and ideally at the curiosity stage that you mentioned, what are three holistic practices that would want immediately incorporated into those programs that have found to be just hands down like the most effective in your practice?

Um, and I don't know that I would call this even holistic, but nutrition, right? I mean, just understanding the foundations of, you know, food as medicine and food is information.

This shouldn't be, holistic or alternative. And, now, I'm mean in the conventional world, there is lip service paid to diet and lifestyle. When we don't understand as physicians the underlying science in the biochemistry and the why of why this is probably the most important prescription that you could write, we do not necessarily have that conviction and that belief in that power of food to then impart that to our patients.

Because changing diet, let's face it, it's one of the hardest things in the world to do. It's so much easier to pop a pill for many kids and adults, right?

But when we're asking for a paradigm shift in how we are eating and how were thinking about food and what we put into our bodies, we as practitioners have to 100% believe and live that.

Otherwise, were just kind of saying don't smoke while we were taking a smoking break at lunchtime, I would say, you know, not just nutrition surface level, but understanding the biochemistry, understanding, the biochemical reasons why food is such powerful information for your genes and your microbiome and you immune system and brain.

And right now in medical school, it's true that that's really not covered at all or if it is, its very surface-level, like maybe two weeks or something.

very surface level. And then, you know, when you look at some of the studies looking at, gosh, there was this one study that just came out, showing, I can't remember, it was a probiotic supplement, and I think that was used, And there were better outcomes, this was for adults.

But what they also found was that families or adults who took the probiotic supplement, we're also much more likely to have a healthier diet and lifestyle.

Why Nutrition Belongs in Medical Training

And so could we attribute those outcomes just to the probiotic? Now, okay, yes, I get that. The outcomes were really remarkable that the health patterns were much better in those adults who had healthier diet and lifestyle.

So why not tease that out? I mean, time and again, we're seeing the power of the Mediterranean diet or, you know, adding more fiber to your diet, getting healthy lean proteins, healthy fats in your diets.

And so, that if we don't as practitioners impart that to parents, and to children, we're just going to be on this continued trajectory of nobody's getting well, and we are going be scrambling as adults to, once our health has fallen apart, trying to biohack our way back to however we felt in our 20s, right?

And so I don't want that to the future for our children. Absolutely. I mean, in many ways, our kids are the canaries in the coal mine. Would you agree with that?

Absolutely. Oh, go ahead. Well, one of the things that I was really startled about as I doing research for my book and really trying to get down, what is the state of kids' health today?

One of studies I found was looking at autoimmune levels in different age groups. And there's a very non-specific blood marker called an ANA or anti-nuclear antibody.

It doesn't mean that you have an autoimmune disease, but it means that your immune system is shifting into autoimmunity. And that is absolutely the canary in the coal mine.

What they found was every single age group since the 80s, when they started looking at this, has had a rapidly increased rate of positive ANa levels. Now, what they found was that the age group that had the quickest rise from the 80s to the 90s, there was double the rate.

And then from 90 to, you know, the early 2000s triple the right from baseline of positive ANAs were our teenagers, 12 to 18 years of age. These are adolescents.

Nobody is really checking ANA levels. Now, I started checking any levels because I want to know. And it can be frightening to see on your 13 year old that they have this positive ANN, but I wanna reframe that and really have parents and kids think about the fact that positive is something we can absolutely reverse.

with diet and lifestyle and supplements and all the things. And so we can actually prevent your child from tipping over into an autoimmune disease. That is why I check the labs now, because I want to see which teenagers have the simmering autoimmunity that may not present until they're in their 20s or 30s, but why wait until that point?

Why do you think we're seeing that rise? Is it just from increased testing or do think it's the environmental toxins and processed foods? What is your thought on that?

Yeah, well, I think it's really bottom line that our kids, and frankly, us as adults, our gut microbiomes have changed. And our microbiome is really the heart of 70 to 80% of our immune system, which lies in our guts.

The crosstalk between our got microbiom and the immune systems in the gut is essential for maintaining what's called immune tolerance. that we can tolerate living in this world that's foreign, right, without attacking it, and also in tolerating ourselves.

And with autoimmune conditions, our immune system starts to not tolerate ourselves and literally starts attacking different of our bodies, whether it's our thyroid in Hashimoto's or whether its our joints in rheumatoid arthritis.

And so we know that there's a particular category of beneficial bacteria in our gut called bifidobacteria that has been gradually declining over the decades in the last century.

In fact, babies, when they're born, should have almost 80 to 100 percent of their gut microbiota composed of bifidobacteria. There is a really what I would consider a landmark study that was published earlier this year that found they tested newborns, their got microbiomes, and found that Almost all of them had no bifidobacteria levels.

None. Right? None or like very, very low. And again, it should be 80 to 100 percent. And when we look back, there was a Scottish pathologist 100 years ago that looked at baby poops and there actually was even formula back then and compared baby poop of breastfed babies and formula fed babies.

The breast fed baby of 100 year ago had 100% bifidobacteria. Fast forward now, the breastfed babies of today, their gut microbiomes look much more like the gut microbiomes of the formula fed babies 100 years ago.

So even nursing doesn't guarantee that your baby's going to have the right microbiome to inform and educate their immune system from the start. And that has to do with environmental toxins, ultra-processed foods, psychological stress, which can harm our microbiomes as much as any toxin that were put in.

The overuse and inappropriate use of antibiotics, whether in our food supply or actual antibiotics that are prescribed, And for children, in some studies, up to 70% of antibiotics were inappropriately prescribed.

Because most kids, when they get sick, they have viruses and antibiotics don't do anything.

Kids as Canaries in the Coal Mine

And so we're at this time now where this is what we in our modern world have done to our microbiomes, and it's time to then Now, wake up and recognize that and figure out how to optimize our microbiome so that we as kids and adults can have the healthiest gut-immune system connections and gut brain connections.

When you talk about resilience, is that what you're ultimately talking about is like resilience comes from that, you know, that strong and resilient immune system?

Is that the equation for you? Yeah, absolutely. I mean, resilience, you know, we can see resilience. Many parents, when we talk about resilience we're thinking more about mental health resilience that grit, right?

The blessing of a skinned knee, how do you kind of get back up? But that trickles to every cell in our body. and affects our immune system, affects out gut microbiome.

In fact, we can now see measures of gut-microbiome resilience. You know, how resilient is your gut micro biome to bouncing back after a round of antibiotics or after a vacation where you just ate tons of junk all week long, right?

Or travel time zones. I mean, all of those can affect our microbiome. And so it's not that we want to live in a bubble. We want reduce the factors that disrupt our gut microbiomes, but we also want build that resilience so that when the inevitable birthday party with you know, neon blue frosted cupcakes, like make it into your kid's diet, you're not freaking out and you can trust, okay, their microbiome took a little hit just now, gonna bounce back and I have the tools to do that.

Yeah, so before I go to the tool's question, which is inevitably coming, Do you think we're stressing out too much about some of these things? Because as you mentioned earlier, stress is a huge contributor to that lower microbiome.

And we are getting inundated with information around food that we historically never had. Yeah. So do you we think getting too granular about it? That's, I think, exactly the word that is appropriate, too granular.

I that we're at the point now, it's just information overload, and it is better than no information. And we understand so much more about the impact of what we put in and on our bodies and how that affects our immune system and our brains and microbiomes.

And yet, what were not stepping back enough and doing is realizing that that way of thinking granularly about how this vitamin affects this cell and, oh, I have these labs saying I need to take 50 different supplements, Well, our body is not isolated cells, isolated organ systems.

When we step back and look at our bodies and our brains and immune systems as an interconnected web, and we can move the dial on a couple of things and, we could really look more holistically at, well, how do we live on the whole?

How do help our brain as a whole really be safe and comfortable and empowered in this world, that's when we can move into real health. And what I worry about, and this is one of the things that happened in the functional medicine space.

I love functional medicines. It is the foundations of how I practice and how i teach. for many functional medicine practitioners, especially those who are starting, they haven't yet moved out of the conventional model of looking at this test result and assigning this medicine for that.

Now we've shifted to, let's look at the test results and assign a supplement to that, and that is where we come out with pages of supplement lists and families or children who believe that they can't be well without supplements.

This is such a good point. Right. And then who look, you know, I've had kids who have had autoimmune illnesses, PANS, pandas, rheumatoid arthritis. These are not light health conditions.

I completely get that. Yet, when we're to a point where kids are in remission doing great and thriving, And we have a lab result that shows maybe one or two lab values off.

I have parents who, you know, really are then just focused on correcting that lab instead of stepping back and looking at their child and saying, You know my child is doing great.

Every single one of us. If we did lab work, we are going to find one or two or maybe more things that are off balance or not optimal. Do we want to work to optimize those?

Yes. But we don't define our health by our labs. That is a part of the picture. And I really think stepping back and taking a bigger picture is what's eventually going shift the paradigm of medicine.

We haven't been doing that well in functional medicine, Really, and even in the biohacking world, right? You see all of these gadgets and everything that we have to do, these supplement stacks and these devices from dusk until dawn, or dawn until dus, we should say, that you are literally trying to bio-hack every moment of the day.

That's not the way to health either, because now you're not trusting your body to anything. You're saying I need all of these external things to maintain and optimize my health.

Gut Microbiome, Immunity, and Resilience

And so I think it's shifting. I we're going to get there. We're now in this age where, yes, functional medicine, devices, biohacking, it kind of had its huge heyday.

Now there are people stepping back and saying, what about a simpler way? What about trusting, again, our body? And yet, I was just in Target recently, because my daughter was influenced by at her camp, some of these kids had these supplements, and she was like, oh, i want to go get what they had.

And they were all gummy supplements. Yes. Yeah. When I went into Target, we were like look, well, let you try this once, but you realize everything we do at home is already supporting all these things, cause we're very functional, clearly.

really thinking through these things and trying to create that lifestyle that supports that resilience with nutrition and

gut health. And I was shocked at how many gummies and how trending that is.

I honestly was very disgusted. because I was like, this is the candification of these supplements that you're talking, you know, of this functional medicines.

It's literally making it like candy, which it's really not. And I think that's the wrong message. and it is an illusion of health. it makes it sound like this enough.

Yeah, well, and I do, you know, that's with supplements in general. It started off with, Flintstones when we were kids, right? And those were delicious from my memory, I remember my parents saying, oh, You can only have two or whatever it was, even though we wanted more and more.

Yeah. You'd smoke five, yeah. And when you look at the gummies, And I'll call out some names, there's Ollie, There's- Golly. There is Gollys. Yeah. I mean, there are so many brands out there that are, and what is the other brand that is so smarty pants, right?

Smarty Pants are probably the two most popular smartie pants and Ollie have the gummies. And when you look at the serving, because I'll have parents come in and I've recommended maybe vitamin D, you know, deficient or insufficient and maybe some magnesium because they're constipated or having headaches or have trouble sleeping.

So then they'll go out and buy the gummies and when we line them up and look at the amount of added sugar in each serving, Right? One serving of vitamin D gummies will have maybe a teaspoon, five grams of added sugar.

Now they're having gummy omega fish, which are a total junk because they don't have enough omega fatty acids in them. And they are having Gummy Vitamin C and GUMMY Vitamin D and they have gummy magnesium and a gummy malty and then all of a sudden that's 30 grams of added sugar right there.

And when I talk to them. They're not thinking about the cumulative effect. That's exactly what made me so angry. I even said that to my daughter. No one's taking just one of these a day.

Or taking 8 to 10 of the different. And some of them, and then you have to watch out for the zero sugar ones because those can have sucralose and acesulfine potassium, which are artificial sugar substitutes, in my mind is even worse.

Now, kids should have no more than 25 grams of added sugar in a day. So already with their gummy sugar, they're kind of upping that. But then when we look at the acetyl sulfate and potassium and the sucralose, which is found in lots of zero sugar sports hydration drinks and protein bars and whatever, you know, now my teenagers are looking at.

We look at the labels and they understand which ingredients, even if the front of the package says, high protein, good energy, whatever it is, right, sports recovery, they know to look and put back if it has artificial colors, if has sucralose, it it acid, sodium, potassium.

I mean, this is where our kids now, their gonna be inundated. The supplement industry is not gonna go away and You know, I am committed to teaching kids how to really be savvy supplement consumers because at some point, and I do believe many kids will at least at certain times require supplements above and beyond food because our food has become so depleted.

and because our immune and brain needs have gone so high, you know, in our modern world. But they need to understand how to be savvy because, I mean, there's, You can see now, the shelves and shelves at Whole Foods and Target and Walmart and whatever of lots of supplements that are, some are good and some were total junk.

So even when, just as we're being, more savvy about reading food labels, we have to be very savvy reading supplement labels too. How do you discern what this influencer is saying versus that influencer?

How did you discerne this study versus the other study? Because as you know, I'm sure you about this is like those 80 studies that all came out saying, oh, drinking soda pop a day is not bad for you.

You just need to exercise more or whatever. Those were all debunked later realizing that they were paid for by Coca-Cola or one of those companies, right?

So how do we know what to trust and what are we looking for? That is really the ultimate question, isn't it? How do we become savvy research readers, especially if we're not scientists or physicians?

And kids are so savvy nowadays. And our kids who are kind of bordering Gen Z and then Gen Alpha kids, our Gen alpha kids. Are growing up in an AI world where they're gonna be able to chat GPT anything.

I have kids coming in with ideas for supplement stacks. For optimizing their sports performance or helping them with lose weight or whatever it is.

Avoiding Overcomplication in Functional Health

And they're researching and they want the right evidence, and yet they don't understand how to look for the evidence. And that comes with looking at the source.

I mean, you have to try to figure out what the sources of the funding for research was. It doesn't mean that just because it was sponsored by a supplement company or a food company that it is automatically a bad study, but you need to have an even more critical lens when you read the results and you read the interpretation.

And then also making sure that they're reading multiple papers, not just the ones that confirm what they want to hear. I had this one kiddo who came in with this list of research papers trying to prove to me that MSG was totally safe and fine.

And I said, well, let's take a look at your sources and now let us try to find some other sources that might refuse this and then really try compare those head to head.

So we have to also meet kids where they're at too. And kids nowadays, it's not enough to say, oh, because I told you it is healthy or not. They want to know.

But then we need to help them understand how to be savvy. Yeah. Absolutely. Let's go into the question of What kind of, well, let's equate symptom to how you would advise healing with some of these.

Now, obviously, you're giving just very surface advice because clearly if something serious is going on, they should really be testing and working with someone like yourself.

But what are kind of the top three symptoms you're seeing in kids these days and what potential things that parents can immediately incorporate to support those symptoms with some healing?

I think the most common issues that I'm seeing in kids as young children, it's eczema. I mean, one in three kids to one and five kids nowadays has exema and the kids, the babies I am seeing, most of them are not coming in with the buttery soft skin that we think of.

as smooth baby skin. And then, of course, as kids get older, they have the bumps on their arms, the keratosis pilaris, and then the acne. I mean, those are all signs that there's something going on in the inside that's not balanced, that coming out on the skin, And, then we have brain symptoms.

Attention and focus in behavioral symptoms show up really early on. and anxiety. And anxiety is something that, you know, when your kids are little and they're in preschool and their starting elementary school, for most parents it's all about their immune health.

So that is part of it, if your kid are getting sick all the time, getting ear infections all time. That also is a sign, hey, let's look to see what's going on inside that we can balance.

How do we optimize our immune and gut health? But then, towards the end of elementary, middle school, and certainly by high school. The immune health takes a lower level of concern and it becomes a mental health and anxiety and this lack of stress resilience.

And what we're seeing in our teenagers is really this crisis of mental that has existed for decades. But now is really coming to light. I think thankfully, you know, this new generation of kids, there's not as much of a mental health stigma.

And so there is an openness about talking about, well, I have anxiety, ADHD, neurodiverse. we're not meeting them with the tools that they need to then manage their anxieties or their ADHD or, you know, whatever behavioral, cognitive concerns that have.

And so I really want to help kids reframe that. I think about this because my daughter right now, she's 15 and a half and, teenage girls since the pandemic, It's been noted that up to one in three teenage girls has seriously thought of suicide.

I hear cutting has increased as well, right? Cutting is increasing, and I look for that in my kids. And when I see marks, I'll ask them, oh, why did that happen?

Why did you hurt yourself? What's going on here? with the parents not in the room, well, I'll ask them, what's going on? What happened that you really felt like you needed to do this because this is not okay?

Your brain should not feel this way. And when we think about the gut-brain connection, that's why I always talk to kids and teenagers about what their gut microbiome does for them.

And really, from the mental health standpoint, I want them to understand that their gut microbiome produces up to 80 to 90% of their serotonin, which a lot of high schools have heard of seratonin.

It's our, quote, brain chemical that helps us feel calm and relaxed, manage stress, helps asleep. but we can only have the optimal amount of serotonin in our bodies if we have right gut microbes to make the seratonin for us.

And I've had remarkable stories of, in fact, I just spoke with this one kiddo yesterday, and she came to me at 10, And she's almost 11 now. So at 10 years of age with ADHD, OCD, ODD, I mean, you name it.

I means, she had all of these initials, diagnoses, and she tried many different medications. All of them either caused worse behaviors or caused her to stop eating, losing weight.

Too many side effects. None of that really helped. her behavioral and cognitive symptoms. When the parents came to me, they were desperate because she had stopped really eating.

She had narrowed down to three different foods and the whole family was walking on eggshells.

Supplements, Gummies, and Reading Labels

The poor girl, she did not like how she was acting, but she couldn't control it. And the parent were almost afraid of you know, interacting in the least bit because she would explode and become aggressive and throw things and became aggressive with her younger sister.

And so you could tell they were just all, I mean, the vibration of their stress was so palpable. So the first thing I did was just say, look, you're not going to give you any supplements or make you change your diet if you don't want to, but I'm going educate you and tell you why I think that's important.

We just laid that foundation and the mom called that night and said, you know, she actually she heard you and she was willing to have a little floret of broccoli on her plate.

Right. Without pushing, just, saying, look, this is you have the power here. And then I spoke with her about her microbiome and She agreed to do a stool test.

And when we looked through her stool test, she had these abnormal bacteria that we know can cause a lot of inflammation. She had something called lipopolysaccharide that these abnormally bacteria make that can causes a lots of immune and brain symptoms.

And we worked on that with some supplements. And within less than a month, her mom called back and said, I can't believe that my daughter is willing to take her supplements every single day.

She must be feeling better. And this is the first time we've seen her actually relax and smile in like months or years. and she said I thank you so much.

We finally feel like we're getting our daughter back. And that was in less than one month. And now it's been, I think it has been about nine months since we've been working together.

She's starting middle school and things are just continuing to go up. Even yesterday she said all the things that we're trying, they're helping. My daughter knows that they are helping and she was on the Zoom with me.

None of them. has any side effects like the medications. And so they're just so hopeful that things can get even better and better. I want parents and kids to understand that, that sometimes medications are necessary, and I've prescribed medications for anxiety and for ADHD.

But if we don't look back at the foundations of the gut microbiome, food, how we're living, it's going to be an uphill battle. getting those foundations is key, and then we layer in medications if needed.

Are there specific practices that would support that step towards optimal health that families listening or watching this podcast could just start right now without going to a doctor, without even testing, but just because this is the smart thing to do for everybody, are there a few that you might impart?

Yeah, I mean, the first thing I would say is if you want to dive in more, um, i would read my book because I put everything in there that we're talking about today in a really practical doable way for every family.

Um, you know that it has all the steps and I call them the five things for microbiome magic. They're the 5 things they should show you how to nourish your microbiomes, what foods to really focus on, but foods that keep out.

how we really breathe and engage our vagus nerve every day, how move, hydrate, and sleep, all those things. And I put them in a way, it's the way I actually speak with the kids in my practice and the teens in practice.

I've had teenagers read the book and then want to implement some of the facets because they're reading it, not because mom and dad are telling them. And in fact, what I'm loving is that a lot of my kids who have graduated off to college now, they're reading it and saying, oh, that's what you were talking about, Dr.

Song, and now I really, I am trying to do this in my dorm and, you know, trying cook this way. So one of the things that we can focus on, if we're thinking about what foods to try to get in, we really want to focus, on I mean, call them the three microbiome champions, are fiber-fermented foods and phytonutrients.

Our microbiome needs plants. I mean, they feed on the plants in our diet. And so fiber is what our microbiota eats and use to ferment and create all of these other compounds for us, like the serotonin I just mentioned, or dopamine, which helps with attention and focus.

Our microbiome, when they ferment these fibers, they actually make a lot of vitamins for us, like B vitamins and

vitamin K. And so these are all what we call post-biotics that are really rich in fermented foods, and that's another thing, that another microbiomes champion, get your fermented food in.

There's lots of different creative ways to get fermented foods. We can move way beyond sauerkraut. I give an easy fermented blackberry lemonade recipe in the book that kids love.

And we can ferment just about anything. You can fermented fruits and make popsicles and smoothies with them. really nutritious gummies with grass-fed gelatin, you know, and really whole foods.

And then phytonutrients, so the color. I mean, each color in a different fruit or vegetable or plant provides information for a microbiota to communicate and affect our epigenetics.

So what does that mean? It means that even if anxiety or autoimmunity or heart disease runs in our family or diabetes, like everyone on my dad's side is diabetes.

Well, you can shape how your body will eventually interact and your microbiome can shaped how you're genes express themselves so that you don't have to be one of those, everyone in my family conditions.

Right? And so that's one place to start.

How to Evaluate Research and Influencers

If your kids are super picky, one of the places I start with is just letting kids know and parents know that really picky eating, narrow palate, sensory, not liking the different textures of food often is related to not having enough zinc in your system.

And zinc is highly correlated with animal protein intake. Now, you can get zinc from pumpkin seeds, nutseeds, and legumes, but it is highly correlated with animal protein intake.

So making sure that you're getting high quality proteins in your diet, sustainably caught low mercury seafood, really important because that also has the omega-3 fatty acids for your immune system and your brain.

And of course, you know, we want to use pluck, organ meats, right? I mean, organic meats are so rich in iron and vitamin B12, which we need for methylation and Vitamin A for immune support and has some zinc in it as well.

So there are ways that we can optimize the very, very common nutritional deficiencies that kids have with food. Now, there are also signs, like I mentioned the picky eating, that can be a sign of low zinc, right?

So even if you don't have an opportunity to get blood testing done, we can, I know if your kids are really sensory, loud sounds, bother them, tags on their shirts, Maybe I'm going to try adding more zinc in their diet or trying a little bit of a zinc supplement.

Or magnesium, another really common nutrient deficiency in kids. If your kids are constipated, get headaches, have trouble sleeping, really hard time managing their stress, and have really bad period cramps if they're teenagers, that to me says, oh, your body is screaming for magnesium.

So let's get in those magnesium rich foods and maybe we'll try a safe dose of magnesium if we can't check and test to see how much your body really needs.

And I give those clues in my book on some clinical physical signs that your child might have these nutrient deficiencies even if you don't have a doctor near you that can do the testing.

These are such great tips. How do you deal with diets? I mean, a lot of these kids, particularly junior high to high school, they're probably coming in sometimes with like, well, this is how I'm gonna eat, or they are kind of like already standing on that soap box of, like this the diet that I am gonna get.

And it's possibly that diet, that's causing that havoc. So how do, you or how you even recommend parents navigate you know, all these dietary influences that they might be getting from social media or their peers or whatnot.

And then, yeah, I'll just leave it at that. How do you recommend that parents navigate dietary preferences? So it starts with the education. I think that's really important.

When kids come in, let's say with horrible acne. Many kids and teenagers, if they have really bad acne, they're a little more motivated to try some things.

And I just let them know, look, your skin is a mirror of what's going on on the inside. If you have a really about acne just now pay attention to when you of outbreaks, what could be some of the triggers.

And I will list some of the common triggers. Of course, for girls, some it can be their period hormonal, but for boys and girls I talk to them about food triggers, it could be dairy is a very common culprit and of course sugar, right?

And just notice like when you I have kids who come back from summer camps where they're eating tons and tons of Kool-Aid and desserts and whatever. Ultra-processed, not such great food.

And they come out and their skin is a mess and I just plant the seed. Do you think that could have been from the food you were eating? And so you plant those questions and then I let them know, look, If this is something that you're really interested in working on, I would suggest a trial going off of dairy and mapping out.

And here's how I might do it. Let's make it as easy as possible. You know, plan it out, let's look at what is in your diet that has dairy first of all.

And now let's think about what we can swap instead. What are some of the replacements so that you're not stuck at Chipotle with your friends thinking, oh my God, what am I going to get?

Right? And so mapping all of it, like making it as easy as possible. I do the same thing with parents with younger kids.

Common Childhood Symptoms and Root Causes

And map out exactly like, What is your week look like? Where do you eat out? Where you shop? Let's think about what you're going to swap at the grocery store, what are you going swap a restaurant to make it really easy.

So for kids who are pushing back, I don't say they have to change anything at that moment. I just say, look, this is something that could help. Your eczema that you wear long sleeves so that nobody can see your elbows and you are scratching all the time.

that could be gluten, right? And just kind of planting those seeds. And some kids will immediately after that kind make note and go home and actually want to start trying and making those changes.

Other kids, it takes several visits, but that's okay. I mean, these conditions didn't happen overnight. We really want these dietary changes and optimization to be for a lifestyle.

So I just let parents know if food is becoming a battle, just back off. Because you're not going to win that, especially when they're teenagers and they are going off and buying their own food.

You have things available, you have cut up vegetables, chopped fruit available as a snack when the come home on the table so they aren't just reaching into the pantry and grabbing the bag of chips and the soda and whatever.

And you keep your pantry the way you would like it. Right? So that, you know, if you're buying potato chips, your buying maybe the bolder ones with olive oil, and the siete cassava tortilla chips.

So, that's what's in your pantry, not the fiery hot Cheetos or the Takis. So you're, as a parent, responsible for buying the groceries and choosing what's in your household and making it available to your kids.

And then the kids are responsible making the choices that they want to, but then you are educating them so as their brain and their frontal cortex develops, they can start making those rational decisions for themselves.

If someone decides to try the elimination diet where they're pulling out either gluten or dairy or soy or something like that, just picking one, how long do you recommend they try that for?

Two weeks or a month? Yeah, two weeks at a minimum. Two to three weeks. I mean, I let parents know and kids know that if we want to do a really, really good experiment, it has to be minimum two weeks, sometimes three weeks.

And it had to 100%. So I'll walk them through it. Now, before I have kids do an elimination diet, D-Day on the calendar, this is when we're going to do the 100% elimination.

They already have all the different pastas that they're gonna eat or, you know, the tortillas that are appropriate or whatever they love like croutons or you, know if, uh, You know that, they have the replacements at home and as part of their diet.

And then once we decide to the elimination trial, we do 100%. for a minimum of two to three weeks. And then after that, let's say take gluten for instance, we will then take one day where we reintroduce gluten full force, breakfast, lunch and dinner, and then we stop and we wait and watch.

Brain symptoms, skin symptoms gut symptoms immune symptoms sleep mood, whatever it is, for the next four or five days. If there's no reaction, then, okay, gluten's probably not a huge factor, maybe we'll try the Now, what I prefer to do is actually eliminate, because sometimes it's multiple foods, right?

And so I'd prefer with gluten, usually I'm doing gluten and dairy at the same time. And then depending on what my level of suspicion is, like for some kids, eczema, I often find citrus can be a big culprit.

So if they're eating a lot of citrus, i'll have them, you know, try eliminating that. Um, and for kids it might be eggs. so we just kind of, um, go with what they are eating, a LOT of and what parents and kids suspect.

What, we only have a few more minutes, so I wanna just give you some kind of like questions that are more quick fire, but what is one surprising daily habit that has had a profound modern health impact?

I would say that the one simple thing that can profoundly change the trajectory of your health is learning how to engage your vagus nerve every day. And that, it's simple.

If we just teach kids and adults how do belly breathing or diaphragmatic breathing, when they're sitting on the way to school or sitting at their desk before a test or whenever it is, we want to get our body and our brains out of fight or flight and just breathe with our belly, not with their shoulders.

for maybe 10 slow deep breaths that slows your sympathetic nervous system down, engages your vagus nerve, and sets a whole chain reaction in motion that strengthens your immune system and your brain health and you gut microbiome.

And so with that one thing that we can do anywhere, anytime without looking strange or different, you know, in the classroom or wherever, before a soccer game if you're kind of, you know, amped up, okay, just slow down, do 10 belly breaths.

We're teaching our vagus nerve to kick in when it's supposed to, and we're TEACHING it to be able to KICK IN whenever we need it. Like when we are sick with a virus or when were really stressed because of exams.

I love that. Yeah, so some deep breathing. Yeah. I find I have to support my older daughter with that a lot, like just teaching her how to regulate her breath when she's up there, you know?

And it works every time, but I really kind of come up to her physical touch and I've to breathe with her. But my hope is that by me doing this now for however, the next 10 years or whatever I need to do, that she'll eventually do it on her own.

She will. And I love what you're saying because as a parent, for any parents listening, this co-regulation piece is so important. When we see our kids stressed or sick or anxious, it's so easy for us to kind of escalate to.

Or to problem solve, like, oh, well, we've got to fix it. Yeah, that's right. But if all you did was what you do, what your doing, slowing yourself down, using your touch so that your temperature and your heart rate start to co-regulate, That helps kids to understand what that regulated state is.

And with that kind of body-brain memory, it's going to be so much easier for her to access that when she's older on her own.

Food Sensitivities, Elimination Diets, and Vagus Nerve Support

So, absolutely. And it starts with just practicing because we have to know how to get into that state. Yeah, thank you. That's so good. Screen time, social media, at some of our parents, they're some our top concerns.

and our top battles, right? And I know your kids are in high school, so maybe it's starting to change for you because it, or maybe not, maybe its increasing, but is there an ancestral rhythm or a physical resilience that can help restore, I should say, is their an ancestor rhythm of ritual that could help to restore the mental and physical resilient in today's kids?

Yes, absolutely, because to be really just completely honest, there's not going to ever be a time where kids don't have screens in their lives. I mean, these are the first generations where they are digital natives, where screens and AI are a part of their everyday life.

Now, that doesn't mean they have to have a screen. at every age. And my children, they're almost 14 and 15 and a half, and they do have smartphones. I would have gone back and not had their first phone be a smartphone, like in retrospect, but it is what it.

They don't have social media yet. And I've told them, honestly, I don't know when we will allow them to have social media on their phone. It has to be a reciprocal decision where they have to show that their brains are responsible enough to be able to shut off when needed, to not get, you know, mesmerized and addicted to the doom scrolling, which honestly for adults is really hard, right?

I mean, I find myself doom-scrolling at night when I'm like, all of a sudden it's like oh my God. It's 45 minutes, I should have been asleep, right? And so, you know, just I want their brains to be more in control of that.

And I let them know. I mean, teenage years is all about building independence, self-advocacy, being in-control of your life, and screens are designed to take over your minds.

And so, just like ultra-processed foods, right? Those food additives and those sugars. So, by allowing the screen or this ultra processed food to take over your brain and cause a craving and an addiction, you are then no longer in control.

And, so that is very important. What's one thing that can counter that though? Because there's no going back from phones. I mean, teenagers are going to have phones at some point.

We need their brains to learn how to use them successfully. Again, this doesn't mean that they learn to do that when they're seven or eight. But having time every day where there's a screen-free zone, I am adamant that

mealtimes need to be screen free, whether that means you have a basket where everyone, including the parents, put the screens away.

There's not even a temptation. If it's beeping, that can wait, right? I mean, there is never, rarely a time that there's such an urgency that you have to interrupt your meal, your family meal to go answer the phone or reply to a text.

So meal times, screen free. I really try to enforce, and this is something that this year as we start back at our new school year, a screen-free car zone.

Because some of the best conversations you're ever going to have with your kids is going be on the ride to school. Right? Absolutely. Where you're not kind of in their face, eye to eye, they're in the backseat.

And I mean, conversations just happen if they are not buried in phones. Right. I also think really implementing, if you can do this daily, great. But at least weekly, a walk in nature.

where no one has phones, you're together, that being in nature will engage your vagus nerve. And then having the opportunity to not have your brain constantly looking at something will give your brains the opportunities to know what it looks like and feels like to be just free and calm.

Wow, this has been such a great conversation. I would love to just keep talking, but I want to respect your time. I cannot emphasize enough how important it is that people check out your book.

I think it's a phenomenal book we pass out to so many of our friends when it first came out. We bought a bunch of them and gave them as gifts. Oh, thank you.

But you're also working on a pre and probiotic, right? So you are trying to provide a solution for supporting the microbiome. When can we expect that and what does that look like?

Yeah, so it's a microbiome supplement. So it is a complete daily all-in-one essentials for your kids and their microbiomes.

Screens, Family Rituals, and Microbiome Support

And there are no probiotics in it. It has all of the foundations to grow this ecosystem inside your child that then houses the most favorable microbiom possible.

The reason there's no probiotics because this is huge educational lift for a lot of people is that Our microbiome is composed of hundreds of trillions of microorganisms.

And just sprinkling a few strains of probiotics may not be the right ones. We have such a unique microbiom. So probiotic are designed to be supplemented, at least my belief is, probiotis are meant to supplement for specific needs.

If your child has eczema, we're going to look for one that supports in the science healthier skin. If your child has anxiety, we're going to look in the science for the specific strains that support a healthy stress response, not just a random smattering of different probiotic strains.

So what this supplement has is called HelloBiome. It has 30 different plants. Remember, plants and phytonutrients are so important for your microbiome.

It's got a blend of 10 fermented berries. it has prebiotic fibers that are evidence-based for pediatric populations and a complete multivitamin-multimineral mix.

So it's basically everything your kids and their microbiomes need to sustain daily a healthy, optimal life. And that is called HelloBiome and coming out in December.

If all goes well, December or January. It's coming right around the corner. That's excellent. And that's 2025, everyone, no matter when you listen to it.

So hopefully it's either out already or it is coming. Well, thank you so much. Because that is true when we ferment dough. I mean, there are microbes in the air, right?

So in a sense, you're basically saying, look, we already have these things. We just have to nurture them, really, Absolutely, absolutely. I love that analogy.

Yeah, and I loved your point as well early on where you were really talking about not just focusing on the illness, but focusing the capability of the body to heal and to really focus on that child as a whole of what's possible in them, not what is wrong with them.

And I think that if there is any message we can take from this, I really cannot stress that enough because that came up for our own family this summer when my daughter went into the camp.

that she went to feeling like she had something going on and came out feeling empowered because the camp focused on the body's ability to heal without anything else.

There were no screens, it focused on interaction, touch, very ancestral human principles. So she had literally entire three weeks of just that and she's come out of that camp so much more regulated.

It really is a testimony of what you're saying that it's not always just about you know, focusing on the illness or a certain supplement that sometimes it's just about reminding the child that they have the capacity to heal and that their designed to thrive.

Yeah, absolutely. Well, thank you so much. How can people find you and how do you recommend if they want to work with you, they reach out? So the best place to find me is on my website, healthykidshappykids.com and also Instagram, which is healthy kids underscore happy kids.

I unfortunately am no longer accepting new patients, which is why I'm training practitioners to practice in the same way. So you can find practitioners.

I have my practitioner membership site and we hope to have a list soon of the practitioners there. Oh, that's so good. Thank you again for your time today.

thank you for everything you do to support families and kids so that we can heal and kind of get out of this hole that and hopefully have more optimal resilience in everyone's life moving forward.

So thank you for that. Thanks for having me. Thank you so much for joining me on Everyday Ancestral. If you enjoyed this episode, hit subscribe so you don't miss the next one.

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Stay curious, live well,