Protect Your Children From Autoimmunity Transcript

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Introduction and Background

Welcome, Elisa. I am so glad that you agreed to be part of the Multiple Sclerosis and Neuroimmune Summit. You have such insight and expertize. Now what I'd like to have you do is introduce yourself and explain your area of expertize.

So I'm so honored to be here, Terry. We're just talking offline and it's so great to always be connected. Hopefully we can do that in person soon. So for our listeners, I am an integrative pediatrician and pediatric functional medicine expert.

I've been doing this a long time, over 20 years now, and I integrate conventional pediatrics with several other healing modalities functional medicine as a core piece.

But I also incorporate homoeopathy, acupuncture, herbal medicine, essential oils into the practice. I love teaching parents and kids how to understand the foundations of health, health, and to help them thrive for their lifetime.

Okay. Well, let's talk about children and autoimmunity. How common is this? So, unfortunately, we know that chronic childhood disease in general is skyrocketing in kids.

And at the moment, we have just a little over one in two kids diagnosed with some sort of chronic health concern. And that may range from chronic constipation and eczema to more, quote, serious concerns like autoimmunity.

And that number, that one and two number is rapidly increasing. Now, with autoimmunity, we don't have specific numbers. We know that autoimmunity in adults is also rapidly on the rise.

Rising Childhood Autoimmunity

And children's seems to be mirroring that. I have middle schoolers with Hashimoto's thyroiditis, you know, toddlers with juvenile arthritis and infants with Crohn's disease.

And we have this, you know, really this epidemic of autoimmune encephalitis in children called pants pandas. And one of the one of the findings that was really alarming to me, this was a study from last year looking at a and A levels and for listeners and your antinuclear antibody is a very nonspecific autoimmune marker.

And following the US overall in five different age groups, the researchers found that there was a significant increase in the number of people in general with a positive and a biomarker.

However, the age group who had the largest proportions of increase in a positive were our teenagers from 12 to 19 years of age. So this is you know, I'm just looking at the numbers and I might be right now.

They looked at the late eighties as a baseline, and by the early 2000, the rate of RNA in teenagers had doubled. And by 2012, the rate of positive and they in teenagers had tripled.

And now we're already ten years from that. So our kids genes haven't changed in the last 30, 40 years. And this is why this discussion and your summit is so important, because we have to understand what factors have changed and how do we reverse this trend, this alarming trend of an increase in autoimmunity in our kids?

And so everyone who's listening those positive and a that comes years before the damage has accumulated to be severe enough to get a autoimmune diagnosis that will have neurologic or psychiatric symptoms.

Hence the neuro immune component. And this is why I'm so glad we have you here. Now, what are the some of

the foundational issues? You know, I'm thinking of Hippocrates.

You're talking about the gut, health and food. Do you have any comments about Piketty's perspectives there? Yeah, absolutely. So when I think about the foundations of optimal health and in particular the foundations of optimal immune health, and as we as I think about how do we reverse this trend, how do we try to prevent autoimmunity as possible in our kids and chronic disease?

There are three key areas of mastery for our kids and for our families. And that's, you know, your microbiome, your mitochondria and your mindset. Those are the three M's that I focus on.

And Hippocrates is credited with saying that all disease starts in the gut. We know that that is especially true for children and especially when it comes to their immune system.

You know, the 70 to 100 trillion microbes in our gut microbiome. They set the foundation. They meaning our microbes set the foundation for over 70% of our immune system.

And for a child, an infant whose immune system is just developing and learning how to deal with with all of the antigens in the world, the toxins in the world, foods in the world, their gut microbes, their gut microbial composition informs their immune system how to respond.

Do they categorize a certain food or a toxin as as friend and let it by do do they identify that antigen as a so and create inflammation?

Gut Health and the Three M's

And here's a thing when when our immune system identifies that antigen as a foe, sometimes the immune system can act in the wrong way and start attacking our own cells.

And that's when we have autoimmunity. And we know that the gut and the gut microbiome is intimately linked with how this occurs. In fact, gut dysbiosis or abnormal, abnormal balance of bacteria, parasites, yeast viruses in your gut microbiome can increase the risk of developing autoimmunity.

Are there specific bacteria that I look at when I do functional stool analysis in children, especially when they have a personal or family history of autoimmunity that I don't want in their gut, especially bacteria like Klebsiella or Citra bacteria or Proteus that have been specifically linked with with certain autoimmune diseases.

So what's the big stressors as to why this imbalanced microbiome can develop in our infants, toddlers, children, adolescents? Yeah. So there are many, many stressors.

And, you know, just by virtue of living in our modern sort of ultra processed, ultra fast world, you have so many you know what I've been telling patients are are what we would consider microbiome mischief makers.

And unfortunately, one of the one of the key factors in setting the stage for your child's gut microbiome is as a mom, your vagina and your own gut microbiome when you're pregnant and when you deliver your baby.

No, we can't go back in time and change what's happened. But if you are going to have a baby, I would I would say that optimizing your gut microbiome before you conceive is one of the best ways you can start your baby off with a healthy gut microbiome from birth.

But from the moment they're born, the biggest disruptor to our gut microbiome as children and even adults are antibiotics. And so we have to really understand how to use those antibiotics judiciously and understand that antibiotics wipe out not just the bad bacteria that we answer, but the really all the good bacteria and certain antibodies actually have a preference for killing some of the beneficial flora in your gut while preserving some of the more pathogenic or abnormal flora in your gut.

And so with that understanding, when our children and our teenagers are on antibiotics for not just ear infections, but chronic long term analogs for things like acne, we need to understand how to do that mop up the other key factors in our modern world in how we're living our and the ultra processed food.

With all of those FDA approved naturally and artificial food additives that have been shown in the literature, many of them, especially this category of food additives called emulsifiers, that directly can cause gut dysbiosis, can directly harm the gut lining and the gut barrier function and trigger leaky gut and have been correlated with a significant rise in autoimmunity in various countries.

So and we can't forget one of our biggest toxins of all, our modern world's psychological stress, because psychological stress, that persistent elevated levels of chronic psychologic stress can directly change the gut microbes that want to live in our gut.

And that balance of gut microbes also can affect how we manage our stress. So it becomes this perpetual, this this vicious cycle, because we know that our gut microbes are responsible for making the vast majority of our neurotransmitters like serotonin.

And so which is our feel good kind of calming neurotransmitter. So if we have an imbalance gut, it leads to worsening symptoms of anxiety, depression.

And when we have anxiety depression, we have worsening gut dysbiosis. So I want to go back to the word emulsifier and we're going to go back to some of the psychological stress.

I don't know that people know what emulsifiers are and how they would find them in their food. Like it's not going to show up as the word emulsifier on the food label.

It's true. It's true. So an emulsifier is if you think about an emulsion and an emulsifier in a packaged food as a food additive is the is is the ingredient that keeps that food together.

Microbiome Disruptors and Food Additives

So if you think about, you know, if you buy what was the ice cream I was looking at the other day? I think it was Breyers right. If you look at ice cream, you don't watch your ice cream when you open it up to be this goopy, soggy mess, you want to stay that nice ice cream shape so certain food manufacturers will put in emulsifiers to keep that that food together.

Emulsifiers are also used in infant formulas. The ready to feed liquid formulas. They're found in peanut butter protein bars in peanut butters. Right.

They're not that at all. But and you will notice that the foods for instance, your peanut butter that has oil on top, that you've just stir. That's because it doesn't have an emulsifier. Right.

But you buy the jiffy. That is that perfect. You know, creamy shape has an emulsifier, but what will you see on the labels? And this is really important because emulsifiers are one of the most gut harming food additives.

You will likely see mono or diglycerides. Okay, that's a very common emulsifier. You might see carrageenan, you might see guar gum, which may or may not be is not as bad as a lot of diglycerides polysorbate to also act as emulsifiers.

So just being savvy, you can look up actually the FDA has a complete list of food additives that I should put in my book so parents can see what is what's going to be on the label, but you can look that up yourself.

It's really important to be a savvy food label reader because there are foods and I'm not going to say I never eat out of a package. This is the modern world in that we were busy getting breakfast ready, busy packing the kids lunches.

But when you buy packaged foods or jarred foods, you need to make sure that you're reading that label and making sure that it is as clean as possible.

Whole Foods really not having any of these gut disrupting food additives in them. What a simpler way to think about the food they will be, if it's a word I don't recognize immediately as food that my grandmother would have recognized as food.

It's probably a new compound that is not so good for my microbes. 100%. If you can't pronounce it. If you have to. Your grandmother wouldn't recognize it.

Yeah, your grandmother would have recognized it. If you have to google what it does or what it is, that's not something that you want in your kids bellies or in any of your family's bellies, for that matter.

Okay. So that's a simple measure we could all use. Now, let's get back to psychology, call stress, and I'm going to hold up my phone as I talk. And I'm worried about the impact these phones are having on our microbiome.

You want to comment on that? Yeah, well, we know that. I mean, there's there's many things with this that are problematic. There is, you know, for our kids who, you know, too young and age really are, you know, have access to phones, to constant texting, social media.

We know that that directly plays a role in in negativity, in reduced self-esteem, esteem, lower ability to manage stress. In fact, a study just came out and I believe they just asked teenagers to reduce their screen time by one hour, which most kids are spending seven, eight, 9 hours of screen time a day.

The where on earth is speech, but think about what kids are not doing when they're on their screens. They're not exercising, they're not sleeping, they're not having family meals which are so important for our health.

They're not having face to face interactions with their friends and with their community. And so just reducing that screen time can reduce, reduce psychological stress and significantly improve your sensation of well-being, which is so important when we have this crisis of mental health in our youth right now.

And then we have the electromagnetic frequencies, the EMFs, which some people are more sensitive to than others. But we are electromagnetic beings. And it makes sense that when you have this MSDS that's bathing you and bathing these these developing cells in your kids brains and in their guts and in their immune systems, that that EMF can have a potentially profound impact on how their cells actually function.

And interact with the cells next to them and interact with the extracellular matrix around them. So, you know, a lot of a lot of concerns with and I'm not saying that we need to we in fact, we can't get rid of this.

Right. I mean, this is how we we text each other. Hey, are you on Zoom? Let's do it. But we need to be smart about the exposures that our kids have, how early they have them, and understand what they're doing on their phones and how to reduce the negative impact that the phone can have for them.

Well, you and I could talk for hours about that, but I guess we should probably move on to mitochondria. Yeah. Yeah. Well, so, you know, mitochondria are I mean, everyone who follows Dr.

Wells knows that that mitochondria are really, you know, so important to optimize and supports no matter really no matter what's going on with your health.

But especially if you have an autoimmune and there are chronic, chronic concern. And this is really true for kids, too. And it's an area that a lot of practitioners, even functional medicine practitioners who work with children, don't really look at closely enough.

We know that mitochondrial dysfunction can be triggered by many, many different factors, including infections like Epstein-Barr. Even the SARS-CoV-2 virus can can cosmetics dysfunction.

There are environmental toxins that are might toxic to really directly impacting the health of our mitochondria and our lifestyle factors. So lack of sleep, being dehydrated, eating a sad, ascending wrecking diet, all of those de-stressing or mitochondria and children with chronic conditions, especially kids with neurodevelopmental concerns and immune dysfunction.

Screen Time, Stress, and EMFs

When I look from a lab standpoint and also when I ask them questions from a clinical standpoint, virtually across the board, they have signs of mitochondrial dysfunction, which would be, you know, low muscle tone, sometimes fatigue, but it's mostly poor endurance.

These kids can play soccer and run around on the field, but then they come home and crash. And parents, no more playdates and more anything the rest of the day, which is not normal for kids.

It shouldn't be. Many, many kids are on medications to over-the-counter medications that we know are toxic, like, you know, Tylenol or your RN said, wait a.

Minute, Tylenol might have toxic. So the drug that that we're thinking is okay to give our kids for their aches and pains or after a vaccine is a problem.

Yeah, this is huge for a hugely important for parents to know. There are there are a couple of reasons. I mean, Tylenol, acetaminophen, I mean, what's the first thing that most parents and actually nurses and doctors reach for when kids have a fever?

It's a Tylenol without even looking at the kid in the emergency room. The initial reach for the Tylenol frigid as a fever. But we want to, first of all, step back and understand the actual benefits of fever and fighting infections.

So when we reach for the Tylenol, Tylenol can be directly milo toxic. It also does a very important thing that we need to understand. It depletes our levels of lutathera, which which is our master, antioxidants.

Now, when we are sick or when we have pain or when we have inflammation, we are mitochondria become stressed. I mean, that's that's the normal normal way of things.

And they create free radicals and produce something called oxidative stress. When when we have oxidative stress, we need antioxidants to quickly mop up those free radicals so that we can heal, recover and stay.

Well, Tylenol, by depleting glutathione on our axon directly impedes our ability to reduce our oxidative stress and restore mitochondrial function. So this is really important for us to understand that there are options from an integrative, natural standpoint when your kids have fever, when your kids have pain, and if your kids do need the Tylenol or that's that's the option that you have to make sure that you are supporting your child's glutathione levels with Epsom salt baths, cruciferous vegetables, make sure you're supporting their mitochondria during those times.

And please, you know, when your kids are getting vaccines, do not give them Tylenol. At the same time, Tylenol is going to impede your child's ability.

Okay, let's stop repeat that one more time, because I think that's a super important message. Slowly, carefully. So, yes, please. When your children are getting vaccines, please do not give acetaminophen or Tylenol concurrently if your child needs a fever, reducer or pain management.

If you got the tetanus and the arm is really sore, ibuprofen would be a better choice of those times. However, oftentimes we can do a cool bath, we can do a cool compress, we can maybe try some heavy Catholics or essential oils and not need to use these medications in the first place.

Because, as I mentioned, incense also can stress the mitochondria.

Mitochondrial Health and Tylenol Concerns

And would this be a good time for an Epsom salts bath. Would be a perfect time for Epsom salt baths. Right, because Epsom salts are magnesium sulfate which first of all, the magnesium so many of us are deficient or insufficient or magnesium helps us stay calm and relax.

And the sulfate in the magnesium sulfate the Epsom salts will enhance our own body's ability to produce glue to science. So that's amazing. I love Epsom salt baths.

School kids are sick when kids have an asthma flare, when kids are taking medications that need to go through the liver and certainly, you know, around the time of vaccines for sure.

Yeah. You know, I think they're really helpful when we're having difficulty with insomnia, when we're having difficulty with anxiety. I look at so many young people stressed with their social anxiety that Epsom salts are really very helpful.

And I know in our family we use that for everybody in the family. We all love our Epsom salts best we were. We're going to remodel our bathroom and the contractor when we get rid of the bath tub and spray the shower, I don't know.

I love my Epsom salt bath. I'm not giving that up. That Epsom salt bath are so amazing. And children, even infants and toddlers can they can have Epsom salt.

That's just a little less of that. Okay, let's talk about mindset because I talk about mindset a lot with my adult practice. That healing begins first in the mind.

Let's what's your perspective on all of this? Yeah, absolutely. You know, what's what's fascinating about mindset, I mean, in our in conventional medicine, we have separated our body into different systems and the mind has been placed over here.

You know, it is separate from our body, which does a huge disservice to us, as you said, is really, I think, the the critical piece of healing that most people and practitioner nerves are missing or maybe paying some lip service to, but not really putting their money where their mouth is.

Right? Not really really embracing it as as equally or even more important than medicine as as what you can take by mouth. And so we know that, you know, psychological stress by itself can alter our gut microbiome.

Their gut microbiome and its status affects how we manage psychological stress. And the way the gut brain and the brain communicate in this way is via the vagus nerve, which many of many of you listeners are familiar with.

Just as a side note, 80% of that communication occurs from our brain to our gut, not from our gut to our brains. We have to think of who's the most important to support here, but the function of our vagus nerve when our biggest nerve is functioning optimally and our what's called our parasympathetic nervous system or rest digest and heal part of our autonomic nervous system is a really good balance.

And in good balance, with that sympathetic fight or flight part of our nervous system, we have something called optimal heart rate variability. And many, many, many studies have looked at optimal heart rate variability as one of the most important biomarkers for a predictors of health or disease.

And so when we optimize our heart rate variability, we are setting the stage in our children to have that foundation, to always get back to health, to always know how to recover, no matter what's going on and with with improving heart rate variability, improving your mindset, improving vagal tone, almost everything you do to improve your vagal tone is 100% free.

It takes your time, right? But but it doesn't cost anything to learn how to belly breathe and diaphragmatic breathing

in the right way. It doesn't cost any money to have a mindful moment and do a five senses meditation, you know?

Hang on. What's a five senses meditation? Oh, I love the meditation. This is something that I talk with my kids and my patients about, and I call it Stop, look and listen, because all kids, when they first learn to cross the street, they learn, okay?

They just stop, look around the cars, listen, and then they can go. And so it's it's taken that mindful moment.

Mindset, Vagus Nerve, and Breathing Practices

And when we stop, we give ourselves permission to stop whatever we're doing in this moment, whether we're walking on our way to school or in doing our homework and getting stressed about it, we stop and give yourself permission to take this mindful moment.

And then we look and the looking means using all of your five senses to notice what you notice. And I first, it's first really very helpful to close your eyes because our visual input is the strongest and what we absorb and takes over our other senses.

So you close your eyes and you first notice what you're hearing. And you might notice in that moment that you hear a bird chirp that you hadn't heard before, or you really notice the sounds of the cars in the highway just down the street.

You really notice, wow, I hear my neighbor mowing the lawn and I hadn't even noticed that before. And then we move on to our taste and we notice, what do you taste in your mouth now?

I can taste the minty toothpaste and I just brush my teeth with or maybe I did brush my teeth. I can taste that little piece of bacon that I chomped on at breakfast.

Then we notice what we're feeling on our skin. Do you feel the wind blowing the hair on the back of your neck? Or maybe the weight of the backpack on your shoulders that we notice?

Finally, what we want to say to our eye hearing is, oh, snap this massive. And what do we notice that we're smelling right now? Do you notice the fresh cut grass that your neighbor just cut or do you notice the smell of the smoke coming from your neighbors chimney on a cold, brisk morning?

Finally, we open our eyes and we notice what we see. And when you do that, if your eyes close this entire time, the world seems just a little brighter and you will notice colors you have noticed before you'll notice maybe the little hummingbird nest you hadn't seen before.

Basically what you can see when you allow you other senses first to take over and then the listen. Part of the stop and listen is now listening to how your body and your brain feel in that moment, to just sit in, ingrain that positive moments, because we need to sit with our positivity a lot longer than the negativity, because our brain tends to stick to the negative.

Right. And so that takes maybe, you know, 5 minutes of your time. And it's such an approach for kids to be able to stop and regulate and listen to their bodies.

That is one of the keys to success into adulthood. And so learning that is so powerful. That is wonderful. And that could be a actually a very interesting family activity that the family could do that together in the evening as part of storytime with your kids to stop in, have a meditative experience, whether it's a breathing exercise or this this beautiful sensory exercise, you just guided us through.

Alisa I could talk for hours with you. It always gives me, like, so much joy. I have so much insight and, you know, I'm still want to come have a kimchi with you.

It's been much too long since we've been able to share kimchi together. What what is the one key message that you invite all the parents and grandparents, aunts and uncles to take from our conversation?

I would say that the the key message that I want parents, grandparents, practitioners to walk away from is that no matter what stage of health your child is in right now, or no matter what stage of health you're in and you're worried that your child is going to have that same way, it is never too late to shift how your child's brain immune system and gut is working for them.

We have the power. Your kids have the power to change their epigenetic futures by how they live and how they breathe and how they think. And so this is this is a message of a power, because I know that many listening have been suffering with autoimmunity or know a family member who's been suffering with autoimmunity for a very, very long time.

Key Takeaway and Where to Find Elisa

And and you're here listening because you don't want that to happen to your children. And nothing is set in stone. And even if your kids already have an autoimmune concern cropping up, it is never too late.

You can always get your kids back to a much healthier, vibrant place. That is wonderful and I certainly endorse and support that. It there's always things that we can be doing to make our circumstances better for ourselves and the people that we love.

Alyssa, where do people find you? So the best place to find me is going to be on my blog site. That's healthy kids, happy kids dot com where I have blogs and and if you send a friend for my newsletter, I send out information periodically.

Promise I got ten out of ten and then I'll start Instagram. So if you follow Terri on Instagram, just hop on over to healthy kids. Underscore happy kids.

And that's where you'll find me and some of my latest information. Okay, one more time slowly for people. Again it is under healthy kids underscore happy kids is my Instagram username and my website is Healthy Kids happy kids dot com.

Okay, this has been wonderful. Now much love to you and your family. Yes, you too, Terry. Thanks so much for having me.