Introduction and Dr. Elisa Songu2019s Work

Welcome back to the conversation, everyone. Today I have a personal dear friend of mine, Dr. Elisa Song. Welcome. Thank you so much. I'm honored to be here on your second Mitochondrial Matrix Summit.

We couldn't wait to have you back because you're always a favorite and you speak so well into our community of people who have children and grandchildren.

Because that's been your life's work as working in pediatrics. And for those of you who don't know Dr. Song, she's an integrative pediatrician and a pediatric functional medicine expert.

And she's literally helped thousands and thousands of kids get to the root cause of their health problems and concerns. And she helps parents really understand how to help their children thrive.

And you've created the most amazing platform for people. You have happy, healthy kids. Happy kids. It's an online, holistic pediatric resource to help practitioners and parents really bridge that gap between conventional and integrative pediatrics, which I think is so critical because there's so much good happening in conventional pediatrics and there's so much good happening in integrative.

And you marry that and bring it all together. So what you do is evidence based and pediatrician backed. So that's why you're probably America's most trusted pediatrician as well.

I think you are. Yes. This is in my life's work. And I'm just I'm so grateful to be able to be here with you today and share more information on a topic that a lot of parents and practitioners don't really think about with kids. Yes.

So we're going to talk about restoring mitochondrial function in children. And last time we talked, we talked we had a whole different topic on the last summit.

You know, we talked about the cell danger response. And this time we're going to connect the dots a little bit differently. So it's a whole new discussion today, everyone.

So we're going to talk about the difference between mitochondrial dysfunction and mitochondrial disorders in children. And we'll talk about the underlying causes of mitochondrial dysfunction for kids and how to tell if your child has a mitochondrial problem and how to recover it, because that's what everybody wants to know is we've identified the problem.

Now what what do we do? So we want people to walk away from this talk having really actionable steps today. So get your pen and paper out and get ready to run with us.

Okay. So what tell us, what is the difference between a mitochondrial dysfunction and a mitochondrial disorder in kids? So many people use the words interchangeably, but they're very different.

And here's here is the main difference. Mitochondrial disorders and actual diagnosed mitochondrial disorders, they're pretty rare. The probably affecting about one in 6000 to 1 in 8000 kids and mitochondrial disorders represent a collection of a spectrum of specific genetic metabolic disorders that are associated with specific gene mutations.

You're typically born with these, right? So infants are born with mitochondrial disorders. And sometimes what see early on, maybe some saw signs that there's a mitochondrial concern going on.

Maybe kids have a little low tone. They're not feeding well, they're not growing well. But oftentimes, we don't really

see anything until there's that first big mitochondrial stressor, which is usually the first infection, right?

Like first stomach flu or first first viral infection. And then these kids who are mitochondrial, sort of they rapidly decompensated, quickly become dehydrated.

I mean, these are kids you're rushing to the E. R.

Mitochondrial Disorders vs. Mitochondrial Dysfunction

because you're like, oh, my gosh, it's a simple stomach flu. And they're really, really decompensating. So fortunately, those are pretty rare. However, mitochondrial dysfunction is much more common.

Mitochondrial dysfunction can happen in virtually any kid. And we know that for adults, mitochondrial dysfunction is one of the underlying core clinical imbalances when you have a chronic health concern.

But the same thing is true for kids. I mean, virtually all kids can get mitochondrial dysfunction and these are acquired concerns due to a variety of toxic insults, stressors to the mitochondria that then tip the kids over it and to showing signs of having mitochondrial problems.

So real quick, just acquired means reversible too. So. That's right. Yeah, you can't reverse a genetic mitochondrial disorder, but you can reverse mitochondrial dysfunction, right?

That's right. That's right. So when we say because that's a really key point, when we say that your child is in mitochondrial dysfunction due to X, Y and Z mitochondrial stressors, first of all, that we know.

Oh, okay. Well, something caused this. Let me figure out what did so that it's not it's not a factor anymore. And we can reverse the dysfunction that's occurred to get your kid's mitochondrial functioning optimized, which is exactly why we're talking about this today. Yes.

So we're going to unpack what to do to reverse it. But first, I think the first thing we should help people understand is what got them there in the first place.

So what are the conditions that are associated with mitochondrial dysfunction? How might you know that your child has mitochondrial dysfunction? And then can you also talk about what causes it?

Yeah. So a couple of different sub topics there. So in terms of mitochondrial dysfunction, what causes it? I mean, the same things that we might think about for adults.

Infections can cause mitochondrial dysfunction. Most infections cause some mitochondrial dysfunction, but then some cause more mitochondrial dysfunction than the ones that we think about more commonly are at some bar virus influenza live in there, co-infections and COVID two.

We know the SARS-CoV-2 can be very cytotoxic and long. COVID in children, thankfully, is really uncommon. But we always have to think about mitochondrial dysfunction when you have any supposed viral complications.

We also know that a variety of environmental toxins like more than mycotoxins heavy metals, can be made of toxic glyphosate. You know, pesticides can be toxic.

And then there are the things that are, you know, pretty common in our kids that can stress the mitochondria. And it's sort of like, what's it what's the straw that broke the camel's back?

Right. Because we know the poor diet and lifestyle are standard. American diet has a ton of mitochondrial stressors, extreme and persistent and chronic psychological stress puts a ton of stress on our mitochondria.

So the cellular level, your psychological stress is impacting how your kids mitochondria are functioning, sleep

deprivation, dehydration, altitude can all cause mitochondrial stress.

And then we have to think about, well, in conventional medicine, what are we doing? Also unintentionally that is causing mitochondrial stress? Yeah. What are we doing that could be hurting kids? Yeah.

So and we meaning pediatricians or like practice docs, you know, practitioners who really I mean, many of these medications are necessary. Right. But if we understand that they can cause mitochondrial insults, then we serve our kids better.

If we can prescribe those necessary medications. Caveat only when necessary. Right. And then also understand how to support kids mitochondria when they need them.

So, I mean, these are really, really common medications like where we get asked. I was going to ask, could you also talk about over-the-counter medications? Yes.

I feel like and I mean, I battle this in my own household. So, you know, my husband is like the best dad in the whole world. And the minute from the time our daughter was born until she's eight years old now, I mean, the minute she gets a sniffle, anything, he's wanting to put a cold medicine in in front of her.

He's wanting to he's wanting to stop her fever. He's wanting to, you know. So just talk about that, too, because I think we don't realize that over-the-counter medications are drugs, too.

Yeah, absolutely. And so there are a variety of over-the-counter and prescription medicines that are really commonly used that also stress our mitochondria.

Right.

Common Causes and Medication Stressors

And so this is not to say, you know, use any of these oh, my gosh, your mitochondria are doomed. It's just that we know that if you have that source of mitochondrial stress, you want to make sure that you don't have many other sources of mitochondrial stress. Right.

So what are some common over-the-counter medicines, Tylenol? Right. Acetaminophen causes a lot of mitochondrial stress. I mean, acetaminophen or Tylenol, there are multiple other problems with acetaminophen.

You don't even have Tylenol in our household. You know, we have we do have some ibuprofen. However, these end said medications like Aleve, you know, that teenagers might take for menstrual cramps or you might take for a migraine headache that also can cause mitochondrial stress.

I'll point out to acetaminophen in particular, because what Tylenol does, which is paracetamol in other countries, Tylenol in particular, stresses out the liver as well.

And it depletes our levels of glue to find the. Why is that important for mitochondria? Well, when we are undergoing mitochondrial stress and think about it, what do you give Tylenol for a fever with kids?

Usually when they have a viral infection and that virus already is causing mitochondrial stress. And then here you go. You know, when we have a virus and our mitochondria are stressed, we create free radicals.

There's a lot of oxidative stress that's going on when we're sick that we need antioxidants to mop up those free radicals and reduce our mitochondrial stress.

And guess what? The master antioxidant in our body, it's glue to fire which Tylenol directly impacts. Right. And so we want to make sure it. And that's why when kids are sick, I mean, during during the height of the pandemic, when kids when some kids were getting much more sick, thankfully, now we're at a stage where, you know, our current

circulating strains seem to not be as virulent and as pathogenic.

But I was recommending that all kids and their parents, when they got COVID, take mitochondrial supports like coax. You tend to mitigate include a scientist antacids to mitigate that mitochondrial stress that occurs with infections.

But what other medications right there are very, very common prescription medications like Minocycline, which your teenager might be on for their acne.

Right. Like Metformin, which some young women are on for PCOS, psychiatric medicines. We know we're in a state of mental health emergency for our kids.

Prozac, SSRI is our stressful to the mitochondria. There are certain seizure medicines that can be made toxic like Depakote. So if I have a kid who has a seizure disorder and they're on Depakote, you can be sure I'm supporting the mitochondria.

I'm not saying go after Depakote, right? I'm saying take that necessary medication. Understand the stress that it puts on your mitochondria, support your mitochondria with supplements and diet and lifestyle, which we'll talk about in a moment.

And here's one that parents don't often think about nitrous oxide, laughing gas, right? So if your kids have signs of mitochondrial stress already or they have a chronic health concern now, there are many chronic health concerns that are that we know are associated with underlying mitochondrial dysfunction and autism, neurodevelopmental disorders, autoimmunity, pretty much anything.

If your child has a chronic diagnosis, they probably have some element of mitochondrial stress. But in particular, if I see clinical signs or lab signs, I recommend not using the nitrous through your dental work.

And then we'll talk with the dentist and the anesthesia allergist about what other options are there. Could we do, you know, fentanyl or which are have put less stress on your mitochondria?

And then this is the biggie that, you know, a lot of people don't want to talk about our vaccines. Right. And I'm not here to be yay or nay, pro or anti anything.

I'm totally 100% pro child in this. Right. And I and I want parents to also understand that there are vaccines into susceptible children that can cause significant mitochondrial stress.

In fact, Hannah Poling was the first child to really one in the in the, quote, vaccine courts. And it was determined that she had an underlying mitochondrial dysfunction that was triggered by her vaccinations.

And then really contributed led to her subsequent diagnosis of autism. So and this is where, again, when kids are getting vaccines, I want to make sure that they are fully supported in their mitochondria and their immune functioning so that we have the outcome that we would like to have and none of the outcomes that we don't want to have.

Yeah, this is such an important conversation and I'm so glad we're having this. You know, there are alternatives to supporting our kids when they're sick with just, you know, common flu and gastroenteritis and you know, when their fever goes up.

Can I ask you just real quick and your opinion, because I know burning minds want to know how far should we let a fever go before we do something to lower it in a child?

Such a great question. And in fact, guys, I would suggest I have a bunch of Instagram posts just on fever because fever phobia is is rampant among parents and practitioners.

Right. It's not just parents. We've been trained in our in our society and our culture to be afraid of fever. And I actually have my very first e-book that I ever wrote was What to Do When You The Top Mistakes Parents Make When Their Kids Have a fever and what to do instead to really debunk some of the myths.

Now, you know, when do I consider giving a fever reducer? It's not to lower the fever. It's because it's really help kids be more comfortable so that they can stay hydrated and drink and they can get a good night's rest because sleep is healing.

Right? So one concern that parents have is will the fever get too high? Can it cause brain damage if your child is not over? Bundles? Do they have that release with heat, sweat, breathing out?

And they have they don't have any neurologic issues, meaning underlying, you know, quote, brain damage where their thermal regulatory system may not be intact.

It is really impossible. I'm going to say virtually impossible. It pretty much impossible to have your fever go to a point above 708 that really can cause brain concerns.

You know, kids typically run 104. I mean, my daughter, she gets to 100, 400, 4.5 whenever she has a fever. That's just her thing. And now I know we look at your child, right?

If your kids are running really hot and their teacher bright red, but they're chatting with you, they want to drink. You know, they're sitting on the couch and maybe walking around a little bit, playing a little bit.

I'm not worried about that kid. Right. And so another another big concern that I get from parents, don't you have to bring the fever down because they might get a seizure like they could get a seizure?

Well, in these large meta analysis. But a Cochrane reviews the evidence is pretty clear that giving Tylenol ibuprofen fever reducers during an illness really don't do anything to prevent febrile seizures.

With the caveat, unless your child has already had a seizure in that illness. Right. So, yes, if your child's already had a seizure, the maybe giving Tylenol or ibuprofen around the clock might be helpful.

However, it doesn't do anything to really prevent that from happening in the first place. And thankfully for most kids, that procedures are are uncommon.

And when your kids have seizures, they outgrow them. I know they're so frightening to watch as a parent, but they outgrow them and they don't lead to, you know, later on seizure disorders or brain problems.

That is so important to unpack because I think there's so much fear about if my child has a febrile seizure, then they're going to have brain damage and they're going to end up with epilepsy or something along those lines.

So thank you for this. This is so valuable. Okay.

Fever, Seizures, and Parent Concerns

So we've talked about some of the causes and, you know, the ways that we hurt mitochondria. What are some of the conditions that your children might be diagnosed with that indicate mitochondrial dysfunction?

Yeah. So if your kids are on the autism spectrum disorder, which now the CDC literally just noted this year that that number is one in 36 kids. Now, you know the diagnosis of autism somewhere on the autism spectrum, but we know that mitochondrial dysfunction can underlie can be is one of the main clinical imbalances that we see in kids on the autism spectrum.

And I would say really with any neurodevelopmental concerns, that's the case. If your kids have autoimmune conditions and eczema now really is also considered an autoimmune reactivity.

But if they have juvenile arthritis, Crohn's disease, if you have pans or pandas. All right. So pediatric acute onset neuropsychiatric syndromes where an infection or toxin might trigger these rages and CDs and tics.

Mitochondrial dysfunction is very, very common in kids with parents and pandas. You know, even for kids who have neuropsychiatric concerns like anxiety or depression, it can be sort of like a chicken and eggs.

They did their mitochondrial dysfunction precede and maybe lead to worsened anxiety or depression or is of psychological stress. And they reside in depression, stressing out the mitochondria more.

And it's probably both in a kind of a vicious perpetuating cycle. But again, if your and what we have kids in front of us, even if you're in front of a functional medicine practitioner, mitochondria are not the first place a lot of practitioners look.

But I will say that when we think about kids in chronic health concerns, you have to make sure you're supporting the mitochondria if you're going to get them over the finish line to healing and staying.

Well. Absolutely. So refreshing to hear you say that. And this is the distinction between an integrative pediatrician and a conventional pediatrician, because you're thinking about these things and you know that foundationally must support mitochondria and you know, it's the same for adults.

So anybody watching this right now who is an adult thinking about their own health in every program and process that I take people through, laced into that is mitochondrial support, because we know we need that in order for your body to heal.

It's critical. I mean, remember, kids are just little adults. Our bodies essentially work the same way and we need the same type of support. So I think this is relevant, whether you're three years old or 83 years old in this conversation.

100%. Yeah. Okay. So now let's talk about recovering mitochondrial dysfunction in children and know that if you're an adult, the same things apply. Yeah. Yeah.

When I said, well, you know, one of the questions before we get to that that I get asked is, you know, how do I connect? Are there ways to tell that my kid might have mitochondrial dysfunction?

So I think that for kids and for for babies and for kids, one of the things that I look for is, you know, what is their energy like? And not so much energy, but what is their endurance like?

Because there will be I mean, most parents would say, oh, my kids have tons of energy. I do have parents that say my kids are just they just want to line the cars to come home and they're exhausted.

That's a big red flag. But even before kids get to that point, it's the endurance that I see, these kids that, you know, yes, they can run around on the soccer field and play with their friends.

But when their friends want to have a playdate afterwards, your kid needs to come home and the lab have to take a nap. They can't do anything else. They're tapped out.

They've like maxed out their energy reserves right? Yeah. Kids should be able to play soccer, have a playdate, run around at home and be fine. And then there are subtle signs like our kids with pads and that's it's a common symptom that they're that they're handwriting starts to decline all beautiful penmanship and then all of a sudden the sloppiest penmanship ever.

Now, why is that? Because muscle tone gets weaker and weaker. And and really, it's it's the core muscle tastic kids all of a sudden start slouched. Shame.

They have a hard time sitting up. They might sit in a W position with their knees kind of out in front of them and their feet splayed to the sides.

Signs of Mitochondrial Dysfunction in Children

And then this by holding the pencil, they just lose the tone to hold their pencil grip. So they might push really hard on the paper or not hard enough.

So those are that's probably, you know, if you start noticing that your kids mood is changing, things are going on and their endurance is getting lower, lower, the handwriting is getting worse and worse.

Those are signs that I would want to look to see, can we just optimize our mitochondria anyway? Right. You could always do that or do we want to consider testing, which is not going to be available for for some patients?

Right. But some parents want to do the testing as well. Yes. So any test in particular before we go into recovering the mitochondrial dysfunction? Yes. So the test now and these are going to be similar to, I'm guessing, what you order for your adult patients.

The easiest for kids is typically a urine organic acid test. Right. And there are a variety of that test. It's true. It's a great nutritional snapshot of, you know, a lot of things that are going on. And it gives us a sense of functionally what's happening at a cellular level.

So there are different companies that do. I mean, I use I use one by you know, by their metabolomics or organic acid test. But there are other companies like Great Plains that do an organic acid test.

And within that organic acid test, so much information can provide, including how your gut is functioning and neurotransmitters and oxidative stress markers.

And there are also specific mitochondrial markers that you can look at. So a P test is usually easier for most kids than a blood test, however, and blood tests don't have to be that challenging.

I always recommend using a numbing, limiting, numbing cream so that there's I call a magic cream you put on your elbows beforehand so the kids don't feel the poke and distract them with a scream while they're getting the blood test done.

There are some blood markers that I order for when I'm looking specifically to see the extent of the mitochondrial dysfunction. And they might include things like, you know, an AC that's a liver enzyme, but it also comes from muscle.

A creatine kinase is also a muscle enzyme that can be elevated and creating kinase. We can see very elevated in endurance athletes after high intensity workouts.

You can see your muscles broken down to rebuild. But for kids who are just walking on day to day and they're creating this elevated, that tells me their body feels like it's running a marathon every day, even though they're not their mitochondria are not able to support their day to day normal activities.

And I'll check, you know, a part of two levels. And I mean, there are some fasting ones that are harder to do, but those are probably the ones I start with.

And then yes, I love my urine organic acid testing. So yeah. Okay. So in the last 5 minutes that we have here, could you give us some X number of steps and everybody get your pen and paper ready because we're gonna to talk about how to recover that mitochondrial dysfunction in your child.

Yeah. So you want to make sure that first you identify what current mitochondrial stressors exist and reduce those to the extent possible. If they're not sleeping well, if they're dehydrated, if they have excessive psychological stress, you know, you want to you want to manage that.

If you live in Tahoe, an altitude that causes stress that you might just want to be at sea level for a little while. Right.

And of course, working with your functional practitioner to identify, are there chronic infections going on, is there heavy metal toxicity, are there mycotoxins that are involved?

It's really, really, really important to clean up your diet. Right. And this is especially true. It's true for everybody. But food as food is medicine for mitochondrial dysfunction.

Remember I said those free radicals that are produced that cause that are a result of mitochondrial stress, we need tons and tons and tons of antioxidants.

And you get that from colorful fruits and vegetables. It's like, I know Dr. Walls, three walls is on the summit and here's nine servings. Right. Think about that. That's our goal.

Nine servings of fruits and vegetables, but not just any fruits and vegetables. Think about three servings of green vegetables. Three servings of sulfur containing vegetables to enhance good a science of three colors.

Right. So it's not just fruit, fruit, fruit, fruit. It's really focusing on the quality to those nine servings. You have to optimize your gut microbiome.

And that's a whole other topic.

Testing for Mitochondrial Dysfunction

But optimizing gut health, making sure that there's no gut dysbiosis or leaky gut, your gut microbiome, there's an intimate gut microbiome mitochondria connection, your mitochondria and your child's genes will work better with the healthy gut microbiome.

And I just pause right there. So this I just want a mike drop moment because everything that I do in my practice starts with gut health, because I can't get you to where you want to be in terms of energy production, solving chronic health problems, getting your mitochondria online, you can't skip this step so, so important.

Thank you for highlighting that. And you are so different. And before we got on this interview today, we were talking about probiotics and which ones work well and which ones you like.

And so, I mean, and this is something that Lisa talks a lot about on her Instagram page and on her blogs and so you can get all this good information on how she would support gut health in a kid also, but so critical.

Okay. Sorry, I had to interrupt because that is so important. That is the foundation and this is the mitochondria mitochondrial summit. But you can't separate mitochondria from microbiome guys.

Right. Super important. And then speaking of the mindset, the vagus nerve also plays a critical role in how our mitochondria are going to function. So this is not an optional step.

It's it's really it is medicine to show your kids how to have mindful moments to do the diaphragmatic breathing, you know, to to do tapping or acupuncture or any number of ways that we can engage our vagus nerve.

But that's really key because you're not going to shift out of chronic disease into a health state unless we can engage our vagus nerve. I'm so glad you said this too.

So there is a talk on vagus nerve on this summit. So look for look for that because this is so critical. Really. It's it's one of the it's like the stepchild in functional medicine.

We talk about it, but we don't really, really talk about it. It's really, really important, guys. And then finally, for for most kids who really are showing signs of mitochondrial dysfunction, supplements are often needed, right?

Until we can get everything back on track. And let's face it, you know, to change a kid's diet might be one of the

most challenging things as a parent to think about.

So there are mitochondria support supplements that are similar to what you would use for an adult. But I use CoQ10 quite a bit. Carnitine Acetyl credit team quite a bit.

How to Recover and Support Mitochondria

Most of my kids are on methylated B vitamins anyway and then I might layer in, you know, phospholipids are really important like fossil choline cholesterol series can enhance mitochondrial functioning and brain functioning ribose sometimes, especially if there's a lot of fatigue involved for kids, you know, good thiamin supplements, Epsom salt baths.

So there's a whole range of mitochondrial support supplements that are are possible. I wouldn't just go to those without those working on on diet and lifestyle.

Oh, for sure must. It's an absolute must. And again, so I just interviewed Dr. Joel Kahn, America's cardiologist, and we did a whole discussion on CoQ10.

So again, I want to point out that we're talking about taking CoQ10 as a mitochondria support for adults. And Dr. Song is saying use kokua tanning kids for mitochondria support.

So again, it's just kids are a smaller version of us, right? Their bodies physiologically work the same way. So what we're hoping adults often works really great for kids too, and vice versa.

And I will say awesome works better for kids, right? Faster. It's so much. Faster to remember a genome. Have those, you know, decades of medical stress and microbiome disruption and vagus nerve dysfunction.

It's it is I'm not going to say it's always easy, but it's a quicker road to recovery for children if you know the steps. Oh, 100%. The kids I work, you know, I primarily work with adults.

But when I'm working with adults, people ask me, what can I do for my kids? Because I'm getting good results. So I will guide people on, Hey, you know, this will work for your kids, but if you want to dove deeper, go work with one of my friends like Dr.

Song. But what I've noticed is kids recover so much faster than adults, so much faster. Their energy goes up faster, their brain function goes up faster, their sleep, you know, settles in and reverses faster.

Everything gets better, faster with kids. Yeah, absolutely. So resilient and that's where there is. And some some of you listening to your kids have hands and this autism, I mean, they've had these chronic health concerns for quite a while.

And so you know, if if you're working with a practitioner and you're seeing some improvements, but maybe not all the ones that you want to take a look at mitochondria because like I said in the beginning, that is an area that often is not focused on enough because with campiness we're looking at how do we treat these infections and work in the immune system. And with autism.

We may be looking at methylation and looking at other concerns, but mitochondria are going to be foundational totally. This has been an amazing. Okay.

So any final words as we wrap up here? Because I feel like we should do five more interviews on different kids. But any final thoughts for our parents watching, our grandparents watching who know that their grandkids need support?

I mean, we've got we've all got kids in our lives in some way, whether we're aunties and uncles or we are grandparents or parents. So what do you have to say to to our children?

So as we've said this, but I really want families, parents, grandparents, practitioners to know that you can recover and optimize your kids mitochondria no matter the stage of dysfunction that's in right now.

We just need to understand all of these steps or we need to understand what the sources of stressors are and how we move forward. So there's there's always, always hope and there's always a path forward.

It might be might not necessarily be a super short path forward. Sometimes it is. But I just want parents to understand, we can we can always work on up level your kids health no matter where they're starting from.

Oh, those are such good words to end with. Thank you so much. I just appreciate you. And I mean, I know I'm fortunate to be able to see you a couple of times a year.

I get to see you in June and I get to give you a big hug. But just so our audience can hear as well, I have so much respect for you and the work that you do in the world and the true legacy that you are leaving this world.

You are paving the way for other pediatricians to practice integrative medicine, and you're teaching our parents how to ask for that from their conventional pediatricians, because not everyone on the planet can work with you.

Everyone can read your blog, everyone can go to your Instagram, everyone can soak in the wisdom. But when they are seeing their pediatricians in their own hometowns, they can ask and advocate for their kids because of what you are doing.

So thank you for that. And could you tell our audience where to connect with you, where to find all these nuggets of information that you share so lightly?

Thank you, Laura. That that just warms my heart because this is if I can empower parents to do just that, then then I. Then all this work will have been worth it. So.

So you can find me most easily on my blog. Healthy kids happy kids dot com and also on Instagram is where I would follow me Instagram or Facebook. But Instagram is healthy.

Just underscore happy kids. So go on over there. I have a link to a bunch of free that like the fever e-book I mentioned to you. So happy to continue to share and educate and empower.

Thank you so much. And until next time, everyone take good care. Bye.