1079: Mineral Balancing, HTMA + Safe and Effective Detoxification With Matt Coffman

Child: Welcome to my mommy’s podcast!

Katie: Today's episode is brought to you by LMNT, which is my go-to electrolyte drink for staying hydrated and feeling my best every day. I have used this for years, and unlike many sports drinks which are loaded with sugar, LMNT delivers a science-backed blend of electrolytes with the sodium your body actually needs, especially if, like me, you live in a hot climate, sauna regularly, or work out regularly. Whether you are working out, walking the dog, traveling, or simply trying to keep your minerals and your energy levels up, LMNT makes this simple and delicious. I keep their canned ones in my fridge all the time now, and their convenient salt packets are perfect for tossing in your purse, your gym bag, or your carry-on, so you are never without electrolytes when you need them.

My kids are also a huge fan, especially of their new pink lemonade. What I especially love about LMNT that they have so many flavors now, so it's easier to drink throughout the day. If mixing isn't your thing, they also now have what I love, their new sparkling canned beverages that give you the same electrolyte benefits but in a ready-to-drink format. And those are a favorite among people who visit my wellness center as well. Adding LMNT to your daily routine is one of the easiest ways to support hydration and help your body perform at its best. I also find very helpful if you're a breastfeeding mom.

So if you're looking for a simple upgrade to your wellness routine, give LMNT a try and experience it for yourself. They have some delicious new flavors like lemonade iced tea and pink lemonade, and they always have their happiness guarantee. Go to drinklmnt.com/wellnessmama for a special offer.

This episode is brought to you by Hiya Health, which I have a now extended and renewed interest in, especially with having a baby around who will be starting solid foods pretty soon. Because here's something that's kept me up at night as a parent, and I've talked about before. Our kids are the first generation growing up on not just ultra-processed foods, but foods that don't have the same nutrient content that they used to due to soil changes and so many other factors.

In fact, we're just beginning to understand the extent of this problem. And this is why Hiya exists and why I'm glad that they do, which is to give parents a real solution in a market that is flooded with kids' vitamins that are actually contributing to the ultra-processed foods. They have candy-like appeal, but not actual nutrition.

In fact, some children's vitamins on the market contain up to seven grams of sugar per serving and are stuffed with additives and petroleum-based dyes that I go to great lengths to avoid in my kids' diet. So Hiya took the opposite approach with zero sugar, zero gummy additives, just clean nutrition. And the great part is kids actually love them.

My younger kids are a huge fan. I have tried them, and the flavor is actually great, although obviously I don't take them daily. But what makes them different is how thoughtfully they are designed, formulated to meet very specific nutritional gaps that modern kids face. And they worked alongside pediatrician and nutrition specialists to make a chewable multivitamin that packs a blend of twelve organic fruits and vegetables and fills the common nutrient gaps that kids face.

They're also non-GMO, vegan, dairy-free, allergy-free, gelatin-free, nut-free. They really have thought of everything to make these ideal for kids. And they are NSF certified and receive Clean Label Project's Highest Purity Award. So when it comes to something I feel safe giving my kids, they are definitely on the list.

It's designed for kids two and up. They ship straight to your door. And I love that they send you a reusable bottle and stickers with your first order. So this helps you keep up with the refills, and they send refills every month as well. I am a big fan of these as well. And Hiya just launched something new.

If your kids are active and growing, you can add a clean protein powder with minerals designed just for kids to be exactly what they need. Their new Kids Daily Growth Plus Protein is a game-changer. It's more than a protein shake. It's a purity awarded clean protein powder with added minerals and healthy fats that can mix right into water or smoothies and support muscle development and cognition and fuel everything else they've got going on.

So, we worked out a special deal with Hiya. You can receive 50% off your first order on any of their products. To claim this deal, you must go to hiyahealth.com/wellnessmama. This deal is not available on their regular website. So again, that's H-I-Y-A-H-E-A-L-T-H.com/wellnessmama, and get your kids the full body support they deserve.

Hello, and welcome to the Wellness Mama podcast. I'm Katie from wellnessmama.com. And this episode is one that I'm very excited to share with you. It's going deep into something that I've been using lately, especially postpartum, that I am seeing good results from and that I think is likely a missing piece for a lot of people, and that is mineral balancing, which is different than just mineral replenishment, and specifically that, that is informed by HTMA or hair mineral analysis.

I found this was a missing piece for me because the hair mineral analysis shows a deeper level of what might be going on with the body beyond just deficiency, but when it comes to toxicities as well and imbalances in ratios, which is the piece that is not easily tested in blood tests and often missed, I feel like, especially for hormones.

And today's guest, Matt Coffman, is an expert on this. He's my go-to, and I'm working with him directly. He's not your typical health influencer or biohacker. In fact, he has probably navigated most things that someone would be working through. Having navigated Lyme, Babesia, Epstein-Barr, parasites, mold toxicity, heavy metal toxicity, addiction, and much more.

So he has both personal and professional experience with many of the things that we talk about. But he talks about what mineral balancing is and why it's different than just getting enough minerals, why hair analysis is a different and preferable test for this. We talk about my experience with mineral balancing, how minerals can help the body release heavy metals naturally versus a harsh detox, and why the body's actually holding on to heavy metals in the first place. What ionic mimicry is and how this might be a missing piece for a lot of people, what enzymes are and how this relates to our mineral status.

He talks about a trick that he found that helps a lot with picky eating and how picky eating can often be an important symptom in kids, and it is their body being protective, and so how to understand that correctly. He talks about his work with kids with autism, some important lifestyle factors for detox and mineral balancing, a surprising place where people are getting a lot of their mercury, and it's not fish.

About-- We talk about manganese toxicity and so much more. He definitely has a whole different perspective on many of these things than you might have already heard, and I feel like you will learn a ton from this episode. I know I did. Like I said, I'm working with him directly, and we'll do probably a part two at some point that actually explains my personal experience.

But for today, let's jump in and learn from Matthew Coffman. Matthew Coffman, welcome. Thank you so much for being here.

Matt: Thank you so much for having me. I'm excited. We've been kinda trying to plan this for quite a while. We met last year at the Biohacking Conference, and just went back and forth, and you know how life goes, but we're finally here.

Katie: Yes, it took a, it was a long and winding road. And I had a baby in the middle of all of it, and I'm so glad we finally get to record. I'm extremely excited to have this conversation because I've gotten already to learn from you personally over the last year and seeing the difference, especially postpartum, with how much I felt an impact of what some of the things we're gonna talk about today.

And I feel like you bring more nuance and understanding and depth to the topic of minerals than most people do, and explain it in a way that's very easy to understand and actionable. And I also know from our conversations that this comes from you, for you from a personal

side. Like, you've actually had an experience with almost all of the things we're gonna talk about today, fortunately or unfortunately, on a personal level.

So I would actually love to start there 'cause you, like me, have had quite the long and winding health journey. I think yours has even been more long and winding than mine. So for context, can you kind of explain what your health arc looked like and how you got into the work that you currently do?

Matt: Yeah. So when I, when I look back on a, on a, on a deep kind of introspective level, you know, coming full circle is I pretty much always had immunological issues as a young kid, but they were never to a degree where I was, like, bedridden. Like, I was really good at sports, and I power lifted. Like, I didn't have crazy fatigue and a lot of symptoms, but I did live basically on more antibiotics than anybody I ever have encountered simply because I had persistent ear infections.

So I would have constantly going to the ear, nose, and throat specialist, and they would just give me, like, drops for my ear. Antibiotics to try to, to try to kill it. And then when the one wouldn't work, they would just give me another one. Like, I would just be on antibiotics, like, year-round sometimes, like, just cycling through them.

Obviously, in the '90s, not knowing anything and being a little kid. So obviously my gut was probably just thrashed, grew up eating processed foods all of that to say, you know, went into my 20s, got into a big kind of, like, addictive period with alcohol and drugs. Looking back, potentially some of the antibiotic use and just, you know, toxins that I had built up over time may have led to some of that.

Probably didn't really feel normal. Like, when you're... And you think about if your entire microbiome is just nuked from antibiotics, you're probably not gonna have all of your, you know, feel-good chemicals and things that your stomach makes, as we know a lot more about gut health now. So I may have just been reaching for some of these, like, party drugs and alcohol and things to try to kind of normalize and feel normal, right?

Plus, back then, you know, partying was a lot more accepted. I'm from Flint, Michigan, so, like, everybody's, like, doing violent crime and criminal activity. So, like, if you're just drinking a little bit and doing party drugs, it's not even really frowned upon. It's pretty accepted. Nevertheless, I moved to Florida, kind of gave up the party life, was sick of it.

And I moved into a house that I didn't know had mold. And from there I really collapsed, but it, it w- it was more than just mold. You know, as I got into it, I started getting Lyme diagnoses, Babesia, Epstein-Barr. I had every heavy metal across the board, tons of parasites. So I was, like, jumping around.

I was getting into podcasts at the time when I got sober. I was… You know, I used to be, like, a gym bro even though I partied. Like, I was just a protein guy, meal prep, creatine, protein shakes, multivitamin, just gym-going kinda bro guy. And started getting into, like, functional medicine because it sounded cool and it sounded like a more healthy alternative to, like, the medical system that kinda spit me out when I was younger.

But then I quickly found that you can kinda run into some really, really bad advice even in the functional space, which I'm sure you- you've seen. They were, they were running better tests, I would say, hormonal panels, you know, 24-hour saliva panels, but then kinda just shilling some of these products that don't work that well in my opinion and just kind of it- it's a money grab as well when they're not really getting to the root cause.

So I kinda jumped around different, different functional doctors for a while. Ended up at Dr. Minkoff's clinic, which he's pretty prolific. He's pretty smart. I actually liked him overall, and I did, like, a $20,000 Lyme disease treatment which he claimed did get rid of, like, the Lyme and the Epstein-Barr and the Babesia and stuff like that.

But I still left feeling pretty depleted. I had severe brain fog. I, I mean, I had every symptom that I- anybody's ever came to me can imagine. Just tons of joint pain, could not work out, could barely stay awake for a few hours without taking a nap, had to have tons of coffee or nicotine and stimulants to try to just, like, get through my workflow, and it was just overall bad.

And then I finally started to get into the world of minerals. I think Morley Robbins, to be honest, even though I completely disagree with his approach at this point, really opened my eyes. I started… I read his book a couple times. I heard him on a bunch of podcasts too. Like, just the power of minerals in general, you know?

He's really harps on magnesium and copper specifically. But I started to think, like, if these two minerals are so powerful and hold so many functions inside the body, like, what do, like, the other minerals do? He kinda shunned those away. And so then I started to expand my research and playing around with different minerals, and then I finally got introduced to the world of what we call mineral balancing, which is the program that I do in my clinical practice which resolves around the hair tissue mineral analysis test, and that's when I really found my healing.

I started to eliminate tons of, like, candida, yeast, I mean, just so many parasites that I just can't even remember how many it was. It was just, like, constantly for years they were coming out periodically as the more I removed the heavy metals. And then I still to this day, stay on that program full time, and I just, I even keep getting better and better even though I'm years in.

Katie: Yeah, it's amazing to me, like, your recovery. Like, you ha- I feel like have touched on all the ones that, like, even one of them is kind of a life-changing thing for someone to get to work through, and you sort of had all of them. So you have direct experience with almost anything that somebody would be kind of going through, which I think is really powerful when you've actually walked that walk.

And, and like you, I've been through some of the more serious ones, and I'm grateful in hindsight for the journey of getting there, and I learned so much along the way. And like you, there's so many things I wish I could go back and tell myself when I was still in that experience, and I feel like that's what this episode today kind of gives us the ability to do for people who are still navigating any of those experiences or symptomologies that they might have.

And I love that you use the term, mineral balancing, because I've been on the mineral soapbox for a long time, and I pretty much talk about minerals in some form in almost every podcast episode at this point, and I feel like it's something I have researched a lot. It's something that's been a foundational part of my health journey for years, and I feel like I still learned some new pieces for you from you directly, and that I'm, like, getting to have a personal experience with that.

I'll say feel free to share anything from mine, 'cause I know we've worked together personally on this if that's helpful for illustration for the audience. But can you kind of d- start to do a deep dive into how mineral balancing differs from just taking minerals or what someone might encounter in other formats and why this is so profoundly impactful?

Matt: Yeah. I, I guess we should start with, you know, why I prefer hair tissue mineral analysis as testing, and then I'll get into why we specifically call our programs mineral balancing. So the HTMA test, in my opinion, is the ultimate test. It's just very, very commonly misread. People give very poor programs based off of HTMA.

Hair tissue mineral analysis, in my opinion, is a cellular biopsy test. It is an extension of your cells, and we do get a long-term reading due to the fact that the hair grows, like, at a specific rate each month, right? So when you cut that inch to inch and a half off nearest the scalp, that's gonna give us the newest mineral patterns, but also it's gonna give us a trend instead of things like blood work or some of this other testing that m- sometimes maybe only shows you, like, 24 to 48 hours.

You can see some of these accounts. They'll do blood tests, you know, multiple days in a row, and the, the cholesterol will be different and, and markers will be different based on if they worked out or they were fasting or they ate a bad meal. So it's very volatile, but the hair, the minerals and the metals get deposited into the hair, and they get lodged there.

And so we're gonna get that long-term reading, which is very critical because you wanna see the trend. Like, you don't wanna see the day-to-day differences. You really wanna know what the trend is, and from there I can design a, a supplement program where we use the minerals to push out the heavy metals. And there's also, like, obviously detox support on there.

We can get into organ glandulars. We also use all of the nutrients, B vitamins, vitamin C, and things like that. And all of the minerals and the nutrients interact with each other in a specific way that begin to kind of turn back on different enzyme sites that the heavy metals have taken place of and push them out and so that the mineral can now do its job in that enzyme site.

And ultimately what we're trying to do is detoxification. So that's why I like the HTMA test. I think Dr. Paul Eck did a really, really good job reading that and understanding how the nutrients interact within the HTMA. Just a lot of people have taken different routes, and they kinda do it a little bit differently.

But with our company at Valence and what I do in my clinical practice, I really focus on Dr. Paul Eck's work. I think he understood how all of these nutrients and minerals interacted with each other because minerals do work within a system, and that's what I try to let people know and understand. The entire min- mineral grid that the HTMA lab is gonna send back to me, it's not about just looking at high and low levels and avoiding certain nutrients and, and supplementing other nutrients.

Minerals work within a system. You wouldn't just look at low zinc and supplement more zinc until that level gets up. That's not how the hair test works, and that's not how minerals are gonna interact with each other. Because when you just supplement a crap ton of zinc Well, zinc affects sodium, it affects potassium, it can affect calcium, it can affect copper.

So you have to understand these like second and third-order effects that happen within the system when you're just blindly shooting, you know, shotgun approach to certain minerals. And so zinc will actually lower sodium and raise potassium. And so if you have a high NaK ratio, that's actually probably good for you because a high NaK ratio with your electrolytes being imbalanced, well, those are what we call your vitality ratio.

Those are your electrolytes. They determine the electrical potential of your cell. So if you have a high NaK ratio and you don't know, and you blindly take some zinc, yeah, you'll probably feel better. But what happens six months down the road, a year down the road, you're just blindly taking zinc? At some point, the sodium will go too low and the potassium will begin to raise too high.

And then the zinc that you're taking will begin to make you feel tired, fatigued, kind of low energy. It can cause some kidney stress, some liver stress because now you've imbalanced those electrolytes too far. But you won't really tie it back to the zinc because you felt so good on it in the beginning.

So you have to start thinking about what did I, what did I introduce lately that's making me feel tired, that's making me feel like I have brain fog? It's really, it's just the same zinc that used to make you feel good. So on the flip side, if you have a low sodium to potassium ratio We would give you zinc still, but it would be coming in with a zinc, copper, manganese complex, which we call NaK Up at my company, and also with B6 and vitamin A.

So the copper and manganese are sodium synergists that would help to raise the sodium and lower the potassium, and then also B6 is really good for, for balancing those electrolytes and bumping up that sodium as well. Because sodium on a hair test is actually a measurement of aldosterone, which the corticosteroid hormone that's secreted by the adrenal glands.

And so it's not just like salt intake. You're actually getting this adrenal measurement reading and you're, you're placing the minerals in a specific way, in a specific dosage, so that you're trying to balance out that balancing act. And there's other ones. That's just a very common one that I use, but people like, like the Morley Robbins camp, they're just like, "Everyone's deficient in copper.

You need more copper." Well, that also affects the electrolytes. That also raises calcium. So if you have really high calcium and a high sodium-potassium ratio, now you're like imbalancing two things further. And then the nutrients play a role as well. That's why it's, it's technically called mineral nutritional balancing, but we shorten it to mineral balancing, just kinda sounds cleaner.

But things like B6, vitamin C, vitamin E, they can all affect that sodium level as well. And so we, we're trying to work in this mineral and nutrient system to begin to balance out all of your main electrolyte patterns, the calcium, magnesium, sodium, and potassium, and all the other trace elements all together at once.

And when you do that, you're slowly bringing the body back to homeostasis. And then when the body comes back into balance, it will begin to remove different toxins simply because you're upregulating all of these endogenous detox pathways, metal-binding proteins, antioxidant systems, and things like that.

Katie: It's so fascinating to me. And, and like I said, minerals are something I've been aware of for years, and felt like I actually understood pretty well and was making sure I was getting enough of. And this approach you're talking about offered a lot more specificity than I had

before. And I think a lot of people, to your point, kind of play Whac-A-Mole with deficiencies in general, but especially from minerals.

And like I've, I've talked before about how blood testing is actually not very accurate from my understanding in general for most minerals for a lot of reasons. But even when someone gets a hair mineral analysis, they might, like you said, just start playing Whac-A-Mole and think like, "Okay, low zinc, take more zinc.

Low magnesium, take more magnesium." And I love your way of explaining that there's usually like a downstream of that, or it's works within this whole system. So often by like over-supplementing one thing, you can actually make other things worse. And I, I noticed a corollary of this years ago when I was helping people with genetic- nutritional genetics, is like someone might find out, for instance, they had MTHFR.

So now they're taking all this methylfolate thinking they're gonna fix this MTHFR issue, but they throw all these other genes kind of out of alignment because they're getting too much of this thing now. So I love that you kind of bring clarity to how to understand this within the system versus just a simple cause and effect related to a single mineral.

I think that's a lot more empowering of a place to start from, and a longer term probably much more effective. I think it might also be a new concept for a lot of people, this idea that you mentioned that the right minerals can actually push out heavy metals versus I know a lot of people still think in terms of detox as like a thing you do exogenously to your body to try to get rid of the bad thing, and I love the, the way you explain that.

But can you go deeper on that? 'Cause I know a lot of people are concerned with heavy metals. There's all kinds of kind of fancy cleanses marketed for this and/or I've seen people do some, what I would consider, pretty dangerous things in the name of trying to get rid of heavy metals.

Matt: Yeah. I mean, in my opinion, minerals and heavy metals should just be basically considered like somewhat the same subject here.

They should be mentioned in the same breath, but a lot of people don't really understand it. It's the heavy metals are actually being upregulated and taken into different, cellular compartments, organs, bones, brains by these mineral transport systems. And that is where they are lodging into different enzyme sites that normally you would have a mineral, and then down-regulating that enzyme site.

So at the very base level, you're running off tons of enzymes that are working in kind of concert and in unison at all times. But if you have different deficiencies and imbalances,

which I've never seen a chart that doesn't, I mean, we are just bombarded with EMFs, we don't live in nature, the, the food is toxic, the water's toxic.

We're been toxic for, like, two, three generations now, so I haven't seen a perfect chart or anything close. Even some of these high-level biohackers and stuff that come to me definitely still need a lot of work. But that's what's happening. So in the face of, of those mineral, deficiencies and imbalances, when you are introduced to heavy metals, which there's almost no way not to, I mean, it, it, jet fuel, geoengineering.

I mean, you can't even really breathe air anymore without getting s- at least some of these, like, you know, aluminum and stuff coming in. So when you have that, the body will recognize that heavy metal through a process called ionic mimicry, basically as a mineral, and it'll say, "Hey, I need something at the level of this enzyme site."

And it'll actually hold on to the heavy metal to basically keep you alive. But the problem is when you have a heavy metal displacing a mineral at the level of the enzyme site, your enzymes are probably only running at maybe 10, 15%, when if it had the actual nutritional element that it wants, then it would be running at 100%, right?

And these enzymes do everything from thinking to blinking, memory, you know, nervous system-related, gut function-related, immunity, different bone problems and structural issues. So, like, enzymes really just come down to the really core base of biochemistry in my opinion and just how you actually function.

People just think of, like, enzymes as, like, digestive enzymes that they take before a meal or something, but really it just goes much deeper. There's so many enzymes that you could spend your whole life, you know, researching each different enzyme. And so the heavy metals are actually being taken in by those, by those transport systems that would normally take up minerals.

And there is kind of a weird situation that we're in, right? Because of the soils being so depleted, because of the poor food that we eat. When a body senses that it has a mineral deficiency, it will actually upregulate different transport systems to take up more zinc from the diet, right? It, it senses a deficiency.

Now it sends signals saying, "Hey, when zinc comes in from the diet, I need to absorb more zinc." The problem is, because of that ionic mimicry, when different metals are also introduced, it will upregulate more of those metals that are really close to the biochemical structure of zinc in search of the zinc.

So it's kind of this perfect storm that we're in where we have all of these deficiencies and imbalances, and then the body is trying to upregulate systems to try to correct those

deficiencies. But we're being introduced to so many toxins on a level that we really can't keep up with. The body's like, "Oh, this will work for a substitute for zinc, and it'll be cadmium or it'll be aluminum."

You know what I'm saying? So it starts to become a perfect storm, and it, it's quite remarkable how many heavy metals the human body can actually hold onto before you really kinda tip the bucket. It kind of accumulates through generations and then over time, and then it seems like it, it all kinda tumbles at once.

Like, you might have a stressful situation like I did with mold, and then you just never recover until you just get it all the way through. It seems like, you know, some emotional stressor or something happens and, you know, maybe one little chronic exposure like lead paint or, you know, something that you may be unaware of, and then it just tips the bucket and you just, like, kinda wake up one day like, "How did I get here?"

It really is this small accumulation over time, and then you start to overlook some symptoms like maybe brain fog or maybe joint pain or digestive issues, and you're just kinda changing your diet. And then it hits a certain threshold, and it kind of all exacerbates out at once, which is what I think a lot of people who kind of went through chronic illness kinda feel like, in my opinion.

Katie: Yeah, I would guess that resonates with a lot of people listening. And I think this also kind of speaks to how understanding mineral balancing and doing this is a lot more safe and potentially much more effective than some of these other methods of trying to, like, remove heavy metals. And probably specifically for children and I would say for, like, w- women in the fertility years of life.

So I would love to speak specifically to that, 'cause I know often those are cases where people are told, like, "Detox is not safe at all," like, "Don't do anything." And also seemingly to me times when it would actually be most important to be aware of some of these things we're talking about.

Matt: Yeah, this harps on, you know, part of that generational kind of curse that we're in.

So what's really happened is we cannot avoid all of these heavy metals in, in, in the environment. We're just so far past that because of industrialization. We use all of these heavy metals in so many industries that it's impossible for them not to get into the environment. And we also had decades where we weren't really aware of the effects, like lead used to be in gasoline, now it's, now it's manganese, which is still really toxic, but you know, we didn't know.

L- so lead was just being spewed into the air. A lot of mining for certain fertilizers and other minerals that are actually beneficial to, to our agriculture or, you know, looking for different minerals, well then heavy metals will be spewed into the air from that. And then we have mercury amalgam fillings we used for so long and, you know, we have aluminum in the tap water used as a antifungal.

We use aluminum in different processed foods as, like, anti-caking agents. It's in, like, antacids. It's in... I mean, we just use these metals for so many things that we kind of just get hit from everywhere, and it's been getting passed on for generations. And now, in my opinion, a lot of people in my generation really felt pretty decent younger, I feel like, and then maybe built it up in, like, their 30s or 40s.

I'm 38, by the way. And now in my practice, I'm really starting to see kids who are in, like, burnout patterns that some, like Dr. Paul Eck, would, would have only found, like, really high-strung, burnt-out CEOs maybe, like, 30 years ago. So, you know, the introduction of GMOs and glyphosates and, you know, antibiotics and all of this stuff has kind of just built over decades.

And what happens is the, the mother specifically, you know, dad's sperm matters a lot too. You should be healthy. You want, you know, you give, you do pass on a lot as the, the male. But the mom creating the baby is really where a lot of the toxins will come down and be passed down, and they will say a lot of times that the first child gets the brunt of it.

It's almost like a survival mechanism of the mother to kind of release some of these heavy metals and things through the placenta. And just for kind of a reference here, I had my wife on the mineral balancing program for, I believe, about a year and a half before we got pregnant. All through pregnancy, she took the minerals, all through breastfeeding, and then I did my first hair test on my son, who's now a little over a year and a half, but I did his first hair test when he was about 10 months old, and he still had a bunch of metals.

And so he's, he's already released a bunch of aluminum, some arsenic, some lead, and I've even seen a few parasites coming out of his body when, you know, when he's eliminating in his diaper and stuff. And he's had, like, days where he's had a lot of diarrhea and stuff. It's hard to tell if that's from detox or if it's just from kid, you know, being sick or whatever.

But it just goes to say that you really- No matter how clean you are, we've been eating regenerative food for the last five, six years, everything's organic and local and raw milk and try to avoid these metals and we're very conscious about shower filters and water filters, and you know, my son still has all these metals that I have to work through.

Now, we didn't do any vaccines and we didn't do a lot of the things to, to give him more exposure, but it was just from what, what my wife passed down to him. That's just a personal experience. But in my clinical practice, I do see moms and children generally in the same burnout patterns. So if you're, you know, in adrenal burnout or you're stuck in sympathetic dominance, fight or flight, I generally will see your kid in that pretty commonly.

You know, a lot of families will test together, and then a lot of the same heavy metals coming out from there. And it's really, really cool because we really are only trying to balance out the body with minerals and vitamins and a little bit of organ support, and then you'll begin to detox. And a lot of people would never really touch a kid who's maybe got ADHD or autism.

We can get into autism a little bit if you want. We see really good results with autism. But just kids in general who are younger, most people are kind of like scared to do a detox approach there. Like chelators are harsh. They can't do enemas. You know, you really- they can't- we, we don't even really give them like a lot of organ support.

It's just a few basic supplements, to be honest, when they're really little, like three, maybe four, and then as they get a little bit older, maybe we add in some kidney support and liver support once they're like a little bit older. And as we just bring that body back into balance, they will begin to eliminate.

So we see tons of kids, I would say mostly with like temper tantrum type issues where you can tell that it's really nervous system related, begin to really calm down and become more chill and, you know, less reactive to things as they eliminate these metals and they, and they balance out their system more.

We see a lot of kids who like nonverbal or autism begin to speak sentences, put on their clothes for the first time, you know, potty train finally, things that they just really needed help day-to-day life. So the longer they stay on the program, you'll see some of that resolve. A lot of ADHD and ADD, sometimes that's related to copper as well.

A lot of kids eliminate a lot of toxic copper that they get passed down from their parents. So a lot of detox approaches, they focus solely on how can we maybe get these heavy metals out of the way. But a lot of people who have done those programs, even adults, when they come to me, I still get them to eliminate more metals usually, but also a lot of the manganese and copper that the binders and stuff don't really, or those detox approaches don't even really pay attention to, which those can equally be as damaging as well.

So the toxic form of minerals is another area we can get into if you want at some point. But kids do really, really well on the program because you can start them so early and you can

balance them out before they really ever even have any remembering of even detoxing, and they don't really get the symptoms like adults do.

Adults can have headaches, fatigue, you know, emotional swings. Some of the metals are in your brain and messing with neurochemistry. And so it's harder for us because we have kids to pay attention to. We have bills, we have podcasts, we have all these things that we do to take care of ourselves and, you know, keep the finances coming in.

Those things are harder when you, when you're having detox symptoms, so you gotta go a little bit lower and slower with adults depending on their workload. But kids, they'll be eliminating like three or four metals, and you really, you know, maybe took an extra nap here and there, maybe had some diarrhea.

Like, they don't really get hammered like that unless they have autism. But generally, when you know, like a, a, someone has a high burden of toxicity like that, you'll go really slow with those kids just because you have the client intake form, and you're talking to the parents about everything. So you kinda know to start those kids a little bit slower anyways.

But yeah, kids are remarkable. I love working with them. They don't get the detox symptoms. Parents are super happy because, yeah, you have to make them a smoothie every day with a couple ... You know, like my, my son literally takes three or four supplements right now, and it's like half capsules of each mixed into a smoothie once a day.

That's it. As they get older, you, the dosage goes up and stuff like that. But they're happy because when you're taking care of a kid who's always hyperactive, can't pay attention in school, and they're getting in trouble because they just wanna bounce around, and, you know, sometimes you chalk that up to being a kid, which is true.

Kids, you know, sh- probably shouldn't sit there all day under blue lights for eight hours a day. But we have done it for decades, right? And kids used to be able to do it. They used to be able to listen and, and now a lot of kids, they have this hyperactivity and this ADD that, you know, we're just giving like Adderall and Vyvanse and stuff like that to try to, to try to get them to sit still, when in reality, there's usually probably some kind of neurochemical response happening to different toxicants, in my opinion, and mineral deficiencies as well, because a lot of them regulate the brain function.

Calcium, iron, zinc, magnesium, all really, really good for brain function. So as you replace those, kids' temperament just gets better. And one that I actually want, that I think is pretty common that I, I see a lot is like kids who are picky eaters. It's very, very common where like even like crunchy, holistic parents, they can't get their kids to eat like healthier foods.

And a lot of that comes down to a zinc deficiency and, you know, the heavy metals that have displaced zinc. We learned in COVID how, you know, people were just slamming zinc to try to get their taste and their smell to come back, right? Well, if you have this kind of subclinical zinc deficiency in your child, he doesn't smell and taste foods the same way.

Also, zinc is really, really good at creating all of your digestive juices and helping you break down food. So kids naturally, maybe they eat something one day and they don't feel that well from it, even if it's like a piece of meat or something healthy, because they didn't break it down properly, they'll kind of begin to avoid those things unless it's like a chicken finger, because now it's like this fried, like tasty taste bud type of food.

So picky eating goes away a lot. Kids start experiencing, just grabbing like broccoli and different foods sometimes that parents are like, "Wow, like I wasn't even expecting that." But honestly, he just started eating more foods that were on the table and stuff like that. So it's just crazy how the kids respond so well without detox symptoms.

It's pretty safe and effective. Dr. Paul Eck started, giving kids minerals and nutrients back in like the '70s. He died in the '90s. Dr. Wilson kind of took over a lot of his work from there, and that's where we learned a lot of this stuff. But they've been working with kids with really great success rates for a long time.

Katie: I just made a note on the picky eating side, 'cause I'm guessing that alone is gonna be really helpful for a lot of parents to know.

I hear from a lot of parents who are really frustrated with their kids not wanting to eat certain foods, and I feel like that's a tough category to remember it in. And I still think the body's always on our side. So to your point, even in these kids who seem like their body's having a, like, a misresponse or, like, why are they being picky, it actually, their body is, like you just explained, still probably being on their side because they're not able to, like, digest or absorb something optimally.

And so I would guess with kids, like, w- when we can give them things that they should have been getting from food but aren't anymore, and get their minerals in balance young, it, like you said, it's probably much more impactful than those of us, like me in my 30s, now trying to do this, or you after all these chronic conditions.

And it's still effective then, but imagine getting to kind of like start your life from that place. And I also would love to go deeper. You mentioned the autism piece. 'Cause I know, like you said, a lot of practitioners won't even touch this categorically. I know a lot of... I hear from a lot of parents who are really looking for answers and willing to almost try kind of anything.

And so I would love to hear more about your specific experience with that, and especially any tools parents can use specific to kids who are on the spectrum that can be really impactful. Yeah, I mean, obviously there's-- everything's how do we fix autism, you know, what causes autism? I think there's pretty clear literature across the board that shows that heavy metals do affect autism.

I mean, they're directly linked. All of the heavy metals, you have to realize, across the board, they all have these different aspects to them, but they all cause inflammatory responses in the brain. They all cause lower antioxidant systems. They all cause inflammation, which is really kind of what's guiding a lot of all of our kind of diagnoses in general.

So they all share this kind of same subset of symptoms that you can get, and then you can get into the nitty-gritty on which ones cause a little bit more of, you know, rage or anger and, you know, brain function and things like that. But I think there's a pretty clear link on heavy metals. I mean, you can go into AI at any time and just say, "Show me all of the studies that link heavy metals to autism," right?

And there's other things, 'cause we have so much plastics and pesticides and stuff, but the heavy metals are the hardest to get rid of, in my opinion. They're not biodegradable, and the body does not wanna let them go until it has that preferential mineral that it prefers. And so that's-- and it's just like this slow process where we begin to replete all the nutritional status, and over time, the body releases the heavy metal when it feels comfortable instead of forcing it out, which is, you know, definitely challenging in a kid.

Like, adults can try to power through and struggle through chelation if they don't feel well and things like that. But yeah, like I have this one specific case I, I post on my social media. The, the mom loves to give me all these updates, but the kid had autism, so I kinda love the updates. I mean, I love all updates anyways, 'cause it always feels good when kids are getting better.

But I mean, he's just had-- I've had to slow down his program, and we took a break for some constipation. You know, like they, they have a big metal burden, and so you kinda gotta tweak things and go slow with them. But they will just begin to go from non-verbal to verbal. Like for instance, this one case that I have, they're overseas, they're Middle Eastern traditionally, but they live in Germany, right?

So normally when the kid's like four or five years old, he's like f- already fluent in both languages. They're having trouble just getting him to speak German because they live in Germany, and they were like, "All right, can we just get him to speak one language, which is

like the native language where we live now, and we'll try to get to the Middle Eastern language later?"

So now he's beginning to speak, and I just posted a story the other day where he told his mom, "I love you" for the first time, and he put his jacket on by himself for the first time. He's beginning to play on the playground for the first time. He's beginning to want to potty train and learn how to potty train for the first time.

So like he's like five years old, six years old now, I think. So- This is kind of old for a lot of this stuff. He should've been speaking a lot. You know, you have plenty of kids. You know that's kind of a late stage. And the doctors were kind of gaslighting her, you know, not wanting to call it autism. She's like, "This is clearly autism."

Like, he's just non-verbal, he's not doing... I mean, he has every symptom. And we've been working together for a while, and it just continuously gets better over time. And autism is a more of a higher burden, so you are gonna have to have some patience with it. You actually can get s- a few more autistic flares during the process as well, and we have to slow the program down because as the metals maybe are released from the brain and they're, and they're kind of processing that, you you wanna back off the program a little bit, give the body some time to adjust to that, then bring the minerals back in.

As opposed to, like, a kid who's just, like, kind of ADHD and stuff like that, you can usually just do the program right through. It's a lot easier. But we are seeing lots of cases where the kids are becoming definitely more verbal, which is, like, the number one thing. Like, when they're going from non-verbal to verbal, you're like, "Wow, this is crazy."

And then it's like, it does take multi-year approach, so I'm still working with some of these kids on these issues. Lots of toxic copper comes out, which can affect the brain in many different ways and cause hypersensitivity, and it can cause a lot of sensitivities to EMFs as well. So, like, the kids have all of these heavy metals, so now they're even more sensitive to EMF exposure.

They're kind of like this antenna, so sometimes they just get hit out of nowhere if they're in big cities and stuff like that, around 5G, and now we have Starlink everywhere. So you wanna kind of get all these toxicants out of the way slowly, in a way that's safe for children And then they begin to slowly come out of the shell where they're antisocial.

That's another big one with autism. They kinda don't wanna play with other kids. They don't-- They would rather just be, like, by themselves, you know? And kids, and I mean, I only have one kid, but he, he seems pretty social when I take him out. He wants to play with all these other kids, and sometimes the kids don't even wanna play with him.

He's like all in their space. I'm like, "Get, get over here. They don't wanna play with you right now." But, like, when you have a kid with autism, they don't really explore like that. They're usually more antisocial. They're scared to do some of the playground stuff when you take them out, and then they just need so much assistance on a day-to-day basis.

So it's like, would you rather deal with that for, for life, or would you, you know, kind-kinda wanna try some non-invasive approach? In my opinion, that's, you know, you don't even have to go see a doctor in person. You know, you, you just send the hair test off to the lab. You order the supplements online. I mean, it's very easy.

I, I think at bare minimum, at least try to get the heavy metals out of the way for a year or two, and then maybe layer on some other approach if that doesn't work. But you don't really know if it's the heavy metals or not specifically until you kind of eliminate all those out of the way. Then as the kids get bigger, in, in my opinion, if they're maybe like six, seven, I can even introduce small amounts of binders like modified citrus pectin.

I really like Zeocharge is one of my favorite binders. It's a really high-quality zeolite that's dosed differently and just manufactured differently. My buddy Jeff Hoyt creates that. He's one of my favorite. I use lots of zeolite on my program personally. But with kids, I can do a really small dose simply because they're, they can't do the enemas, and they can't do the saunas and things like that.

And another practice that people can look into that I think is very effective If you don't wanna do a mineral balancing program, is some of these ionic foot baths. I know if you, if you search it, the research acts like nothing's happening. I've gotten great results personally with them. I like the Ioni- Ionize Me Max 5 by Health and Med, and then there's also the AMD.

So they're both kind of expensive. The AMD's really expensive 'cause it has, like, a lot of FDA approval and testing and stuff like that. I think it's like 2,800 bucks. But the Ionize Me Max for heavy metals, in my opinion, works a little bit better. And I think it's like, can be like 900 to 1,300. There's a few different ones.

But the Max 5 is ver- is very strong, and that you can actually set up a consult with Health and Med, and they'll give you a specific program to your child's age and weight and, you know, if they have conditions. So they don't do a full 30 minutes a lot of times. They do, you know, the timing is less. You know, you maybe do a little bit less powerful how much salt you add to it.

So that's ways that you can start to work with kids with, like, Lyme and autism in ways, but I still think you should be doing the mineral balancing on top of that because the nutrients

are so important, and they're gonna push out more of those heavy metals. I don't think the foot baths and the binders alone get to all of it.

The minerals really do begin to go deeper and deeper over time as you begin to work with them. So we still need to have more cases. A lot of us are working with autism kids at the moment. A lot of my mentors are practitioners. My buddy Clark Englebert posts a lot of good results. He probably has the most clients out of anybody I know.

He's great. I've learned a lot from him. And he's, he's always posting kind of these autism wins as well. So there's a, there's a few of us really trying to work with these autism kids long term. That's the hardest part too. Sometimes autism kids are already a challenge, and then you're trying to get them to take the supplements, and they don't take it.

And, you know, so that, sometimes they fall off because it's just already hard enough to parent a, a kid with autism. But the ones who are sticking through with it really are seeing good results, and it'll be interesting to see, like, what happens over the next year or two or three as they begin to eliminate, like, most of their heavy metal burden.

Katie: That's super exciting, and I'll be curious to follow along on that as well. And to double-click on something you said that I think is really important, no matter the reason that someone might be doing this, was the idea of minerals and mineral balancing before binders, because I see so many people jumping straight to binders.

And I love that you explain, like, the body really wants to hold onto those, and it's for a reason. It's the body doing what's in our best interest, and it's not until we give it the minerals to let it feel safe enough to release those that it, it does it naturally. And if not, it seems like we're kind of, like, wrestling the miner- or the heavy metals away from our body when it's like, "Wait, I actually had a reason to have these in the first place.

And so I love that you explained that so clearly. And I also am curious, are there, like, supplemental lifestyle things people can do that are also helpful in supporting the body through this process? Like, I think of especially things like natural light exposure, which I'm always really encouraging with people because it's free and widely available.

Making sure just hydration is kept up with i- as the body's removing things and flushing things. I'm a huge fan of, like, kind of, you know, nature deficit disorder. The more we can be in nature, the better for lots of reasons. But I'm curious with what the work you're doing, what are the most specific lifestyle things people can do to sort of help as an adjunct with this process with mineral balancing?

Matt: Yeah, so the, the best thing that you can do is, is ex- is exposure and avoidance, you know? So trying to figure out where are these very, very common exposure vectors coming

in through your diet. Number one, processed foods are just... People don't understand how bad they are, not just because of, like, insulin signaling and metabolic function and all of the stuff that it disrupts in general, but, like, we all grew up on this, like, corn syrup, and actually a pretty big common, heavy metal where people are getting most of their mercury outside of fish consumption, which fish is huge, just to touch on that really quick.

Every one of my clients who eats even wild-caught salmon, you know... Sardines and small fish are okay, but all of my clients who have really elevated off-the-charts mercury, they're almost all eating, like, sushi, tuna, wild- and it's all, like, wild-caught even. But these bigger fish really accumulate tons of metals in today's world and, and I see it consistently.

I see high mercury, that's the first thing I ask. It's not 100%, but it's, it's, it's up there. It's pretty high. But processed foods, we get these things though, like seed oils, people are always harping about how they're oxidized and they substitute for your cell membranes and they disrupt your fats, and it's all true.

Well, they use nickel in a catalyst for those partially hydro- hydrogenated oils. And so you actually are getting this nickel exposure, which is very detrimental to the nervous system. Nickel can actually displace magnesium on some of your ATP enzymes and disrupt energy production. It also is very stressful for the nervous system.

Nickel also causes tons of eczema and skin issues and rashes, so a lot of kids who have a lot of these skin issues as well, so they- they're, they're mostly normal, but their whole body breaks out in hives and rashes. Almost 9 times out of 10 they're gonna have at least some kind of toxic heavy metal burden of nickel, which we can get to, get to through the mineral balancing program as well.

But processed foods just bring in way too many, like, empty calories. There's no nutrient density, so that's the other part of this. So the processed foods are bringing in heavy metals. Like I said, aluminum is also used in table salt. It's used in flours and baked goods due to... It's like a anti-caking agent.

You wanna filter your water because we use aluminum in there as a antifungal. So it's like hydration's great, but not if you're drinking a gallon of tap water every day. So the, the avoidance is really, really critical, and then also doing some kind of, like, modified paleo kind of nutrient-dense diet where you know you are bringing in beneficial minerals. A lot of us who, a lot of people who come to me are pr- are already past the point where diet is gonna be super effective for them, but you still need to have the clean, nutrient-dense diet coming in for sure.

But you're... If you're kind of chronically ill, you're probably super depleted and super toxic, where the supplementation route is gonna definitely have to be for you. I think that's kind of

everybody. But if you're feeling okay, that's just another way, like having the zinc coming in from beef and the calcium coming in from dairy and whatever vegetables or bone powders if you can't tolerate dairy.

So it's like getting your minerals in through diet is very critical because those are your defense mechanisms to your body uptaking some of those heavy metals. Another great one for adults, in my opinion, it is like outside of air, cleaning up your air and cleaning up your water I would say a sauna is pretty critical.

I go pretty, like mid-level basic with it, to be honest. I like Robbie Bessner's Therasage Sauna. I think it's fantastic. It's like 1,500 bucks. You don't have to install it. I've moved like four times with it. You just fold it up, take it with you. I'm about to go to Michigan for a month. I'm just gonna put it right in the SUV and take it with me.

Like it's super-- That's how easy it is to move it around. It's light and it's really effective. So sweating out a lot of these toxins as they're coming in really reduces the burden on the kidneys so that the kidneys can filter more toxins and things like that from your... I don't think it's gonna go deep like mineral balancing, but it is just one way to kind of continuously be sweating out some of these plastics, maybe molds, you know, things like that.

All of the heat shock proteins for your immune system. It, you know, it really lowers inflammation as well, which is one of the main goals of any detox program. If you have really high inflammation, it's hard to detox because the body's in this kind of stressed out state and the organs aren't functioning as, as properly as they should be.

So it's kind of like cleaning up the diet with the air, water, sauna, and then nutrient-dense diet and then most importantly, avoidance. And processed foods are the biggest, but there is kind of some of those healthy ones that people hate to hear, like fish. Chocolate's really bad. I maybe not a lot of your listeners, but maybe some, like cannabis is pretty bad.

It's pretty much loaded with cadmium unless you know some kind of like biodynamic kind of like organic guy growing your cannabis. But like a lot of the stuff that you're just getting from the dispensary and stuff is loaded with cadmium and can be very toxic. And so you wanna learn where are these pinpoints where I'm bringing in my daily life, pots, pans, antiperspirants, things like that.

Avoid them. Clean up your air, clean up your water, do your sauna, and then obviously from there it can get more sophisticated with ozone and PEMF and mineral balancing and things like that.

Katie: I love that. I love... I'm a huge fan of a sauna as well. I've talked about that a lot over the years. I've said, like, if it was a pill, everybody would take it. The data is very strong, and

the heat is the mechanism. But I, again, it's like it's, it's helping your body do what it already knows how to do. It's not a thing you're exogenously doing to your body.

You're working with your body's detox pathways, which I think is what also makes it so powerful. And I, I wanna circle back, too, because earlier you mentioned toxic forms of minerals, and I don't wanna leave that unexplored because this is probably a new concept for a lot of people who are maybe just taking minerals that they get from Amazon or from somewhere thinking that they're helping their body.

So can you explain what you mean by toxic forms of minerals and what people need to be aware of before just kind of adding minerals in haphazardly?

Matt: Yeah. So a lot of times supplements are, at least in today's age, used in pretty decent forms. So, I mean, you can get some really, really cheap forms of calcium and stuff that may not be absorbed properly and might cause some issues, but a lot of companies, if they're listening to this show, people are using companies that are using pretty decent forms.

So it's not necessarily the supplements. What the problem with the supplements is they're not dosed correctly, and they're not understanding how if you just take a bunch of calcium, you're affecting all these other systems and, you know, like magnesium and things like that, zinc. And, you know, you're kind of just throwing stuff out of balance when you're blindly supplementing.

But what happens- in the body is things like iron. Iron's a big one because we actually fortified iron in the food system, you know, a long time ago. Like, "Hey, everybody has iron deficiency. We're gonna put it in bread and baked goods." And so like wheat is like iron fortified, and we all grew up eating that, and plenty of people still eat that today.

And that can actually build up and become pretty toxic. And what can happen there is obviously it causes a lot of like reactive oxygen species and inflammatory responses in, in the system, but also different pathogens and stuff can actually use iron to evade the immune system from different like ozone and herbal protocols.

And a lot of times people think that you can only get rid of excess iron through like blood donation, and I used to be a big proponent of that 'cause I have one of those like genetic snips where my iron was never crazy high, but it was like a little elevated, so I, I would, I would donate blood, but I did it like too much and got really fatigued.

I was going like every two months, and now I do it maybe like once or twice a year. I'm still a fan of it. I feel pretty good when I do it, but just not that often, because I do eat a lot of red meat and I do have that genetic snip. But what I find is we can- when we bring that body

back into homeostasis, that's the good thing about mineral balancing is like we're not targeting any specific metal or toxic form of mineral.

We are just bringing the body back into balance, and then when it feels comfortable, it will release whichever toxin. So one, one test it might be arsenic, one test it might be four or five metals, one test it might just be copper, and then that is kind of how we're doing that when we're working the system.

But you do have these toxic form of minerals, and copper's a really big one. Everyone thinks that like no one has copper toxicity now and everyone has copper deficiency but the, the truth of it is almost every one of my clients, if they stay on the program long enough, ends up dumping quite a bit of toxic copper.

And then there's a kind of a deeper segue we can get into with these toxic form of minerals that a lot of people don't understand is that you can have a deficiency and a toxicity in a certain mineral coexisting at the exact same time. So you may need copper in a bioavailable form in the supplement to help balance out the mineral system even though you have all these indicators on the hair test of a toxic copper burden.

So we're still trying to balance the system out. You still need some copper during, during the program sometimes, not always, to help balance out the system, and then once we balance out the system, then the body will remove that toxic excess copper. And some people think that the toxic copper is, like, worse coming out than some of the metals.

You can get a lot of, like, emotional issues 'cause copper's really tied to estrogens and emotions, and you- like, I had a lot of insomnia when I dumped copper, which I, I usually am not an insomnia guy. Some people get that, but, like, when I was dumping copper, I had, like, three nights where I, like, barely could sleep, and I was doing New Calms and calming, calming, like, other herbal supplements.

It was like, it was crazy for a couple days,when normally I'm like, if I'm detoxing, I sleep longer. I don't do the insomni- like, some people get insomnia. I kinda, like, sleep, sleep nine hours. So it's, like, different. So copper is very toxic. It causes... Copper in its beneficial form is, like, antimicrobial, antiparasitic, antibacterial.

Biounavailable copper does exactly the reverse. It causes up, you know, it ha- you have more candida, you have more yeast, you have more parasites when you have that dysregulated biounavailable copper. And when you get the adrenals back working properly over time on a mineral balancing program, then the adrenals can send the signal, DHEA, ceruloplasmin, things like that, that will help to transport out that excess copper, usually through the bile.

But you will see it come out through the hair as well. And then the other one is manganese. A lot of people get manganese toxicity from well water, so if you think that you're being really healthy and you're living off-grid or you're living out, you know, in the country away from a lot of the city exposures, a lot of times if manganese is really, really elevated on the first hair test, so like basically if they're not on a detox program but the manganese looks crazy coming in, I generally am like, "All right, are you, are you drinking from a well?"

And a lot of times they are. And so you-- there are specific like filters and stuff that can kind of grab that out so that you're not drinking a gallon a day with some of that manganese in there. But the other issue, I kind of touched on it earlier but didn't go deep into it, is after we eliminated the lead from gasoline, we started to use manganese because it was less toxic than lead, or we believed it was not toxic.

I'm not sure. Either way, we needed a knocking agent for the gasoline. And so now a lot of us who live in cities or, I mean, you don't even really have to live in a city, people, you know, are around cars and around air pollution pretty much anywhere you live, we breathe in a decent amount of this toxic manganese.

And I actually think toxic manganese is linked to Lyme, and so maybe I touch on that for a second is where there are some studies that show, similar to how I said a lot of pathogens will hide behind iron if you have too much of it or you have it dysregulated it- there are some studies that show that Borrelia burgdorferi can actually use manganese to evade some of those protocols.

So I really didn't get better, you know, after I-- even though I did that expensive Lyme treatment, until I released a lot of my manganese over time. I've-- That's b- I believe that's when I started to get a lot better. So you, you have to approach the system from all of the toxicants, and I see so many of these people who have done tons of liver cleanses, tons of parasite cleanses.

They've been on binders for eight years. Then they come to my program, and they still even release more heavy metals usually, but also a lot of these other elements that binders aren't grabbing. I don't think binders are, are meant to grab copper and iron and manganese. And so that's where I think it differs as well, is like we're not really focusing on a specific metal or a specific toxic form of mineral, but the other detox approaches, they're ha- they, they, you don't even hear them talk about how these other toxicants can actually affect you.

Manganese builds up in the brainstem and causes a lot of neurological stuff that remarkably is similar to Lyme. So it, you know, messes with the vagus nerve, causes a lot of

neurodegenerative stuff. So it's like, is it the manganese? Is it the Lyme? Or maybe it's both. Maybe they're working in tandem when you have that.

But I think if you are doing a Lyme program, you should be trying to get things like mercury out of the way, Dr. Klinghardt's kind of linked those together pretty well, other heavy metals, and then also getting this manganese out of the way, and that's not to say that you couldn't do other Lyme-specific treatments as well, like herbs and ozone and things that may help.

But getting that manganese out of the way is pretty critical for that. So a lot of detox approaches, they don't understand how these toxic forms of minerals can build up in the system. And what it is, is th- it's, they're in different oxidation states or different valence states, so they hold like different number of electrons, and when the body can't utilize those properly, it causes dysfunction very similar to a heavy metal.

Katie: Yeah, you're the only one I've heard explaining this so well and explaining how these things can, like, sort of hide behind within the body and, like, why people might have had the experience of trying these kind of extensive protocols and not seeing the results that they'd hoped. And you touched on this a little bit, the iron piece, but I'd love to go a little bit deeper on that right now because I see so much floating around social media at the moment about, like, iron deficiency and low ferritin and all these ways that you're supposed to fix iron and ferritin.

And I see people doing iron infusions, which I have my own opinions about certainly. But I know you see this probably clinically very often, and I would love for you to just kind of shed some insight into the iron ferritin, low iron thing that so many women seem to be navigating

Matt: Yeah, absolutely. It's actually one of my favorite topics.

So I believe I see this a lot with usually clients, a lot, a lot of my clients are doing blood work, but a lot of people who have iron issues, they generally are. And so out in the hair test, low iron doesn't necessarily mean you have low iron. We call that a poor eliminator, which is kind of referenced, when, how do you explain it?

So basically, a poor eliminator on a hair test means that you don't have, like, enough energy or maybe adaptive reserves to actually eliminate that toxin in the moment. So if you had come to me and all of your heavy metals are really low, a lot of my clients are really happy, and it's like, "Nah, let's pump the brakes here."

Your body just doesn't have enough energy to remove those at the moment. So iron probably is the only mineral that's best found in blood. I will agree with that. But I don't usually supplement iron ever on a protocol. I just... I like heme iron from beef. I think you can get plenty if you're eating a good amount.

Even if you're eating it, like, three to four times a week, you're probably okay. Sometimes even people are only eating it, like, two. But you have to realize how the heavy metals affect iron transport systems to understand why you're having iron issues. So aluminum and lead specifically both have research on how they affect, or how they affect iron transport systems.

So aluminum affects something called transferrin, and lead affects another system called ferroportin. And so this is kind of a perfect storm of how iron isn't being utilized properly and transferred within the system, and it's causing a lot of dysregulation on your blood tests. And so when I begin to do a mineral balancing program, not focus on iron at all, but focus on removing those heavy metals that are affecting how iron is transported within the system, I see people who are anemic come back into range, and I also see high iron come back down into range.

And you also can see iron eliminations similar to heavy metals on the chart. And so that happens, you get the dysregulated iron out of the way, you see the a- anemic come up. But then there's also another level with anemia that I think isn't talked about enough, is back to that piece where the body is always trying to take care of itself, right?

When different pathogens and hidden infections, I think people have plenty of these hidden infections they aren't aware of. We don't always have the best testing for all this stuff, but I think Dr. Paul Eck was alive in the '90s, and his book would say that most people have 20 to 50 hidden infections they don't even know about, right?

And that was in the '90s. So now we have a little bit better testing, and people kind of understand it a little bit more. But when pathogens can utilize iron to evade the immune system in that way, the body is very intelligent and begins to lower the iron on purpose. It's trying to starve out the infection, and that's another piece that people aren't looking at.

So the body is actually trying to reduce down the iron amount to try to starve off some of these pathogens. But if you still have the aluminum and the iron that are affecting, or if you still have the aluminum and the lead that are affecting those transport systems, the transferrin and the ferroportin, then you're still gonna have a tough time regulating your iron.

And iron is really great for blood oxygenation, for your brain. I mean, iron is very critical. You need it coming in through the diet. But I balance people's iron on their blood test pretty significantly, as long as they stay on the protocol long enough, and that's without ever giving iron. I, I- iron's not in my protocol.

Katie: I love that. I feel like that might be a missing piece for a lot of people who are experiencing anemia and being told, like, more iron, more iron, more iron. And I know

there's also, like, countless examples of this where, like, the thing we think is the thing is not actually the thing. It's just pointing us toward what we need to understand about the actual thing.

And I feel like we could do so many more follow-up episodes on this. I would guess a lot of people listening are wondering, like, A, how do I find out these things? Like, where do I get hair mineral testing? How do I find out what it means once I get this testing? And how can I work with you? I know I'm working with you personally right now, even postpartum, and seeing great results.

So I'll put these links in the show notes, but where can people find you and work with you? And I hope that we also get to do a round two and three one day.

Matt: Yeah, absolutely. I'm always down to come on the podcast whenever, you know, especially as you keep going through your program and maybe seeing some eliminations, we might be able to bring that context in a little bit more like personalize it towards you, and you could share maybe your results or whatever you wanna do.

So down to come back on any time. But I have-- I'm on a break right now. I've just been focusing on the supplement company. So just to touch on that really quick, what we've done is we've improved upon Dr. Paul Eck's original formulas at Valence Nutraceuticals, my supplement company, and we've been seeing tremendous results with that compared to the supplements that the lab used to use.

He passed away in the '90s, and the, and the lab is... I get it. They don't wanna touch his original formulas and stuff like that. But there's just better research around different forms of mineral chelates and different things that we can use, mitochondrial boosters, energy, energy producers, things that help with detox in today's world.

So we're actually really, like, the first people who have created a new HTMA line that's very clean. We have all of our certificates of analysis on the website, so you can see, like, the, you know, the metals are really low and the toxins are really low, which people really like. Using really good fillers and excipients and stuff like that.

So that's what we've done at my supplement company. But in my clinical practice, there's a lot of ways you can still work with me. Like I was saying, I was on, I'm on a break from my podcast, focusing on the supplement company 'cause it's been growing and it's been demanding. But I still have, I think, close to 200 episodes, and there's at least 15 minimum all about heavy metals, mineral balancing, HTMA.

So you can check out my podcast, Integrative Thoughts, and really get more of a deep dive before working with me if you want, if you're a person who likes to listen to podcasts. So

there's plenty of information there. My website is integrativethoughts.com, so just the same kind of branding as the podcast.

And right on my website, you can see all my packages for HTMA and stuff like that. I work with clients all over everywhere, pretty much, as long as the supplements can get shipped there, which we do pretty much worldwide shipping besides a few places. But I have, like, a lot of clients in Europe and things like that, so it's super easy to, to work with people overseas.

They just kind of takes a little bit longer to get the supplements and stuff like that, but I can work with a lot of people globally, Australia, things like that too. And that's pretty much the best place to find me, the podcast and then the website.

Katie: Amazing. Well, I will put all of those links in the show notes for anybody listening on the go. Definitely am gonna keep following you myself, keep working with you, and maybe we can do a round two in the future to kind of recap my own results with it and also go into some topics that I kind of made notes for but we didn't get to today. But Matt, thank you so much. I learn always so much from you.

I feel like this is a missing piece for a lot of people, and I'm so grateful we finally got to circle and record this podcast. Thank you so much.

Matt: Yeah, thank you so much.

Katie: And thank you for listening, and I hope you will join me again on the next episode of the Wellness Mama podcast.