Thyroid Triggers And Mitochondrial Dysfunction Transcript

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Introduction and Thyroid Expertise

Welcome back to the conversation. Today we have Dr. Eric Osansky Hi, Dr. Eric. Welcome. Hey, Laura. Thanks for having me. Excited to be here. Yeah, we had you last time on our last mitochondria summit.

We invited you back because you were a fan favorite, your thyroid specialist. And this is a really hot topic. People want to know how to solve their thyroid issues and how this is related to mitochondrial function.

So really excited to dig in today because we're going to talk about some of the factors that trigger Graves, Disease and Hashimoto's. We're going to talk about high and low thyroid hormones that can negatively affect mitochondrial energy and health.

We'll talk about the thyroid gut mitochondrial connection, which I love. Gut is my jam, so I'm super excited to bring you on and I want to introduce you to our audience as well.

For those of you who didn't. For those of you watching who didn't maybe see Eric last time. Eric, you're a chiropractor. You're a clinical nutritionist.

You're a certified functional medicine practitioner. You've been in the space for over 20 years. You've written a couple of books you've authored Nutritional or sorry Natural Treatment Solutions for Hypothyroidism and Graves Disease.

And your second book is Hashimoto's Triggers. You obviously are a thyroid and autoimmune thyroid condition specialist and you're the host of the Save My Thyroid podcast.

I love the name of your podcast, by the way. Saved my thyroid. So you're going to help us figure out how to save our thyroid today, right? I am, yep. I'm going to dove deep into thyroid.

Okay, good. Well, I would love to know right off the bat if we can talk, you know, a little bit about energy and you know, this is the mitochondria energy summit.

So mitochondria dysfunction can cause low energy. And there's some other reasons why people with thyroid conditions can experience fatigue as well. So let's dig into energy first.

And what do you have to say about it? Yeah, well, I mean, when it comes to thyroid hormone, thyroid hormone is very important for pretty much every bodily function.

But when it comes to the mitochondria, you need healthy thyroid hormones. I have healthy mitochondria and I'm sure many other speakers have spoken about ATP, so I'm not going to get into like what ATP is, but you know, plays a big role in energy.

And when you have insufficient thyroid hormone, which is common with Hashimoto's, although there could be non autoimmune cases of hypothyroidism. So just to make it simple, if you have low thyroid hormone, essentially that's going to lead to low ATP, which usually will cause low energy.

And so if someone has hypothyroid is you will actually have too much ATP, which some will be like, well, if you have too much ATP, you have too much energy.

And I mean, to be fair, when I dealt with Graves Disease, I didn't feel low in energy.

Thyroid Hormones, ATP, and Fatigue

I felt hyper. But also what a lot of times happens with hypothyroidism, not just graves, but other types of hypothyroid conditions containing toxic mold, technology, goiter, subacute thyroiditis. But when you have too much thyroid hormone, the body, the mitochondria can't keep up with the demand.

And you get more oxidative stress and you get inflammation. And inflammation is a factor that by itself can lead to fatigue. So it's not even though I personally didn't experience fatigue dealing with hypothyroidism, it's actually not uncommon for people with hypothyroidism to experience fatigue.

And it's not all related to mitochondrial dysfunction and oxidative stress, but that definitely could be a factor. But as I'm about to discuss, there of course can be other factors as well when it comes to low energy.

Yeah. So, so what I'm hearing is this ATP production which yes, we have lots of speakers talking about that on Summit. So this ATP energy production is really critically influenced by thyroid functioning high or low.

There's a direct connection there and then there's this piece of inflammation as well. So what else can be, you know, contributing to experiencing fatigue when you have thyroid conditions?

Yeah. So I wanted to talk a little bit about nutrients because nutrients of course are important for mitochondria, but they're also important for thyroid, certain nutrients.

So one that's important is iron. Iron plays a very important role in the electron transport chain when it comes to the mitochondria. But not everyone knows that iron is important for thyroid hormone formation.

Some might be familiar with thyroid peroxidase. There's what's called thyroid peroxidase or TPO antibodies which are associated with Hashimoto's. And actually a lot of people graves also have elevated TPO, antibodies, but thyroid, peroxidase, it's an enzyme and it's important for the formation of thyroid hormone.

So if you're low in iron, not only will that affect mitochondria but affect thyroid. And, you know, we all a lot of people, if not everyone knows that low iron is associated with low energy.

So one thing I do recommend pretty much for everyone in my practice is to do a full iron panel. What I see a lot of is just first of all, I see a lot of no iron panels, just maybe doing a CBC complete blood count differential.

And if someone doesn't have anemia, the doctor will say, well, you probably don't have an iron deficiency, but you could have an iron deficiency in the absence of anemia.

So I like to look at serum iron, iron saturation ferrets in total iron binding capacity. And I mean, you can have elevated ferritin that's related to inflammation, but not, you know, you could still have an iron deficiency even with elevated ferritin.

So I'm bringing that up because some practitioners will just look at ferritin. So anyway, full iron panel and I don't know if you do that as well. And I want to I want to talk about something about iron here, too, Eric.

I just want to say because I, you know, I work on helping people solve the underlying cause for iron deficiencies. So you are you know, you're right now connecting the dots between thyroid function and iron.

And I want to take it one step deeper is why is the iron deficiency there? And in the Western world, you know what will have you will have you think, well, you must not be eating enough iron.

Maybe you need more, you know, iron rich foods or an iron supplement, but from a functional medicine perspective, we really want to think about what else in your body could be using up that iron or what could be blocking iron from getting into your body.

So this is where I just want to introduce and we're talking a lot about this on the summit. But, you know, toxins and parasites, parasites eat iron. And this is not something that is really talked about in the Western world, very much in

the western medicine world.

And then, of course, toxins blocking your ability to get iron into the cells. So I just wanted to just plug that and keep going. What other nutrients are important here for energy production?

Yeah, and it's a part you mentioned because obviously once you address the costs that are a problem, just because someone's deficient in iron doesn't I mean, you want to correct the iron deficiency, but you want to address the cause of the problem and not just say, okay, just take iron, let's go into oh.

Key Nutrients for Thyroid and Mitochondria

I'm and I'm sure when you running your iron panels on people, you're getting underneath that wall. Okay, yeah. There's an iron deficiency here. What's the cause of it?

Let's solve that too, right? Yeah. So another nutrients efficiency. Coke you ten. So Coke you ten. A powerful antioxidant that, you know, plays a big role when it comes to decreasing oxidative stress, activating mitochondria.

And as far as how does it relate to thyroid? Well, the way I see it, relating to thyroid is a lot of people with hypothyroidism will take beta blockers and beta certain beta blockers will deplete co Q10 and yeah, so that's one way.

But then another thing and. Real quick, they're taking the beta blocker because of the rapid heart rate because. Exactly. Yeah. So it's kind of like a bandaid, right?

It's not really solving the underlying issue, but it's helping with symptoms. Exactly. Yeah, it's it's it's helping to lower the resting heart rate sometimes you use for blood pressure.

Well, yeah. And Eric, I think it's important that, you know, there's a lot of people watching right now who also take beta blockers for blood pressure.

And here you are, lowering your blood pressure to help prevent strokes and heart attacks at the detriment of CoQ10 for absorption in the body, which is required in the Krebs cycle to make ATP energy.

And you know, one of the big things when people start beta blockers, their energy drops. So it's a side effect of beta blockers is your energy can really go down.

So, you know, we're unpacking some of that here. Prescription medications are not without their risks. Sometimes they're very necessary. High blood pressure in a dangerous level.

We need to do something about it now. But over the long haul, you want to look at how can I start to lower that blood pressure in a natural way by changing my lifestyle, changing the way that I eat and the nutrients that I take and so on. So huge point.

Thank you for bringing that up. Yeah, no, you're welcome. I also wanted to bring up statins. Now, this might have been mentioned by other speakers possibly, but I also wanted to tie it into thyroid because if someone has lower thyroid hormone levels that typically will increase cholesterol and a lot of times people will have subclinical hypothyroidism and even going beyond that, they might have hypothyroidism, they might have less than optimal thyroid hormone levels are to say that's not an optimal range, but it's not red flagged as being out of range.

So the doctor doesn't even consider the person as having hypothyroidism. And that's really what needs to be addressed. But instead they just put the person on a statin, which I'm sure you know, also locks co Q10.

And so, so again, that's important because a lot of people are on statins. Oh yeah. It's I think statins are the most highly prescribed drug in America.

Yeah. This is this is a real issue. Any other nutrients that you want to highlight? I probably should bring up magnesium. Magnesium is commonly deficient in hypothyroidism and hypothyroidism and plays an important role in ATP metabolism.

So if someone's low in magnesium, that could also I mean, it could cause a lot of problems. It's involved in a lot of bile come up biochemical reactions but low energy is is one as well.

Yeah so a lot of these nutrients can be simply tested by your practitioner and then that really helps us once we test these things, it helps us kind of dig in and figure out what could be the root causes, what could be causing some of this problem, which is going to directly affect your thyroid and your energy production.

So thank you for highlighting all of this. Now I'd love to dig in to the thyroid gut mitochondria connection because you know, it's my jam. I love gut.

I always say that if you're going to solve any health problem, you got to start with gut health. It's got to be part of your program, right? You have to support gut.

And I know you do this in your own practice. You are a thyroid specialist and you also teach people the importance and the strategies to support gut. So tell us more about that.

Yeah. So I'll just quickly bring back the nutrients and the gut target instead of gut. If you don't have optimal gut health, you know, it's going to potentially affect digestion and or absorption and that could lead to low nutrients.

So you mentioned like the parasites, the toxins which you know, that, you know, that also can affect certain nutrients like iron. But if you don't have proper digestion and or absorption, then of course, that could also lead to problems with nutrients, lower nutrients, and someone might just supplement with these nutrients.

But the key is to try to address the imbalances in the gut. So yeah. Yeah, it's totally mission critical. You have to start there. And what are your you know, what are your biggest tips in your practice on helping people support their gut mitochondria, thyroid gut mitochondria connection?

Where would you what what advice would you have to our viewers? Yeah, I mean, when it comes to the gut, I think I spoke about this with last the first summit, just talking about diving into that five hour protocol and just, you know, just first of all, you got to remove the factor that's causing the gut disruption.

You know, whether it's someone eating gluten on a regular basis or even sometimes on an occasional basis, or if there is a gut infection, you mentioned parasites or they could be other types of infections that disrupt the gut.

And, you know, then going down the list there's replace.

Gut Health and the Thyroid Connection

So if someone has lower digestive enzymes and they're not breaking down proteins and low stomach acid low stomach acid, as you know, can cause a lot of problems could lead to not only cause problems of nutrients efficiencies, but something like small intestinal bacteria overgrowth.

I mean, the stomach acid is important for keeping bacteria yeast in check. So you want to make sure you have sufficient stomach acid and if not you, I mean, someone could take the chain ACL or they could take like bitter herbs, but again, those to me, those aren't long term solutions.

You want to do things to restore health of the gut, probiotics through food and supplementation prebiotics same thing food supplementation that's the third are we got repair there through food drinking things like bone broth cabbage juice or you know, taking nutrients sometimes like l glutamine, for example, there's no shortage of gut healing herbs and nutrients.

L Glutamine is one of them well known, but of course as things like Marshmallow Root and Slippery Elm and MSM and DL Licorice and then the last are for rebalance the vagus nerve, which again I'm sure others have spoken about during the summit.

The vagus nerve is just doing things to increase that parasympathetic nerve activity and the rest and digest system of the body. And so, I mean, those I would say across the board are things that I do just to make sure we restore the health of the gut.

And it's also worth mentioning that most of the immune system cells are located on the gut. So when it comes to conditions such as Hashimoto's and graves, which are more so immune conditions and autoimmune conditions, you know, it's arguably even more important to heal the gut.

But really for any chronic condition you want optimal gut health. You know, I really wanted you to unpack this because, you know, you're a thyroid specialist and look how deep you go into gut health to help people solve their thyroid.

And this is one of the things that's missing in our traditional medicine Western world is we're just giving you a medication and sending you on your way and checking your thyroid every six months to 12 months and not really helping you with this reset, eating and rebalancing of the gut.

And so thank you for sharing how important that is. I really wanted you to highlight that. Now you mentioned Graves and Hashimoto's, and I want to I want to also spend some time talking about about this, because I know many of our viewers have had had a diagnosis of one or the other of these.

And so what are the action steps that people with Graves or Hashimoto's can take to restore their thyroid and at the same time kill two birds with one stone, improve the health of their mitochondria?

Because you're doing you know, when you're doing these activities, you're benefiting more than just the thyroid situation. Yeah. I mean, obviously you want to balance the thyroid hormones.

You know, we spoke about if it's too low or too high, it could cause problems. And effects. But you also want to address the cause that are problems. So when we say balance the thyroid hormones temporarily, someone with hypothyroidism might need to take Antar medication, which a little bit of a catch 22, because the answer to our medication could have a negative effect on the mitochondria and the liver cells, which I also spoke about last last time during the first summit you had.

And if someone has low thyroid hormone, again, we spoke about if you outflow thyroid hormone, you have low ATP and some some people might need to take thyroid hormone replacement either on a short term basis or a long term basis.

But again, just as I mentioned, we're looking at more immune system problems. So really for most of these, not every thyroid condition is autoimmune, but the majority like 90% of graves of hypothyroid and hypothyroid conditions are autoimmune.

So again, things to focus on immune system. So healing the gut, you know, I mentioned most of the immune system cells are located in the gut and then again the nutrient deficiencies which you might have to do other things as we both discuss here on the gut reducing toxic load.

And you know, again, just adjusting a course at a nutrients efficiencies and then, you know, speaking of toxic load, you know, the impact of environmental, that's another step.

Also I'd like to mention because reducing your toxic load will have positive impacts on both the mitochondria because factors such as heavy metals, endocrine disrupting chemicals can cause mitochondrial dysfunction, but also could be potential triggers of graves and Hashimoto's.

So that would be the steps people could take. And you know, we mentioned that someone's taking medications like beta blockers, supplement Coke, Q10, but address any infections.

So we didn't really, you know, cover infections, but certain infections, not just, you know, the gut infections, but viruses can impact thyroid but also can cause mitochondrial dysfunction.

And that includes our latest virus we had to deal with. With. Yeah, that's I don't know. I ask you, Eric, what are you seeing in the thyroid world now with people who have had COVID?

What's happening with thyroid? What's the trends you're seeing? Yeah, it's I mean, it's amazing, unfortunately, how many people have developed more. So I would say in my practice, hypothyroid as and just because I deal, I deal with both hyper and Hashimoto's.

But you know, there's an emphasis of hypothyroidism just because that's what I dealt with. So there's not a lot of practices that deal with hypothyroidism, but but even in the literature, the letter, if you type in PubMed, hypothyroidism and COVID, you'll see no shortage of research studies that show that COVID can lead to Graves Disease.

COVID can also lead to subacute thyroiditis, which is directly affecting the thyroid. And I've seen both of these cases in a lot of people over the last few years.

I've seen also somewhat Hashimoto's develop Hashimoto's with COVID, but definitely more so when it comes to hypothyroidism and graves. And obviously COVID and especially long haul COVID can affect mitochondria because mitochondrial dysfunction cause low energy as well.

So it all goes hand in hand. But yeah, I've seen and seen a lot of this. Yeah.

Graves, Hashimoto's, and Root Causes

So you are mentioning I'm sorry I had you go down that, that tangent there so you were mentioning infections, viral infections. What other kinds of infections are you seeing that are affecting people's thyroid function.

When a couple when it comes to thyroid? So again, besides viruses, certain bacteria, so h. Pylori potentially, you know, can be a factor. And again, that's in the literature when it comes to both Graves and Hashimoto's, there's another bacteria, Yersinia and circle lytic, which I can't say.

I see a lot of people affected, but I've seen some. And in the literature there's definitely that relationship parasites. Now I see a relationship between parasites and thyroid autoimmunity.

There's not a lot in the literature. There are some case studies related to parasites and Hashimoto's. None that I've seen actually in the literature with Graves.

But again, I've seen in some cases not everyone who has a parasite, it's a trigger, but I've seen some where, you know, we get rid of the parasite and restore the health of the gut.

And that was you know, that did seem to be the trigger. You know, it it's it's important to point out that there is a lack of research and literature connecting parasites to a lot of health problems.

I feel like this is a really big emerging area of focus and study right now, and I think there's more to come. And I think that it's really important that that we really listen to what practitioners who have been working in the trenches.

Right, like you're in you're in it with people. You're seeing what works and what doesn't work and what stops people from being successful. And then all of a sudden you start doing some parasite cleansing and things start to shift and move for people.

So we can't ignore that even if there's not a research study dedicated to proving this. And the truth of it is with parasites, there's not a lot of money out there in parasite research unless there's a big drug company, you know, doing the research, we're probably never going to see that kind of impactful, massive research study.

So thank you for saying that, because I you know, we see a lot in our practices and we see anecdotally what helps people and what doesn't, despite what the literature says or the research says.

Right. Yeah, I agree. I mean, there's a lot, as you mentioned, that's not in the research. And definitely what we experience in our practice is accounts.

I mean, we see the results and as you said, there's a research why there's numerous studies on certain, you know, conditions and certain infections and not others.

But yeah, I would agree parasites could be a factor of stealth infections as well, like Lyme disease. Bartonella No, I don't deal with a lot. I personally dealt with chronic Lyme disease, so I do have firsthand experience with Lyme and Bartonella, but that's not my focus.

So I do see some people with stealth infections like Lyme and and Bartonella and the bees and other types of still that's not I can't say I see, you know, hundreds of people with those stealth infections, but that definitely could be a trigger as well.

Mm hmm. Mm hmm. Okay. Yeah. So anything else before we move on to the next topic, anything else that we want to shed light on in this discussion? Yeah, one thing I did want to mention, and I actually did a little bit of research on this too.

Speaking of research, is overtraining. So there's a couple of studies cause that that I think that was a factor what my graves's condition and overtraining I mean I don't see how it can impact mitochondrial function but I just wanted to dove into the research and I came across a couple of studies, one a recent one 2021 study that showed that excessive exercise training causes mitochondrial functional impairments.

And then a 2014 study that showed that intense exercise can cause oxidative stress and myocardium injury. And this was actually the latter one was a mouse study, the one from 2014.

But again, I'm bringing it up because in my case before, prior to being diagnosed with graves, I was definitely overtraining. And at the time I wasn't I should have known better, but I, I didn't.

And I think that was a contributing factor to taxing my adrenals, which, you know, get them back to the fatigue adrenal. Whether or not you believe in adrenal fatigue, compromise, adrenals could be another factor, another reason why people with thyroid conditions experience fatigue so so yeah it all all ties together and I don't want anybody out there to be training too hard because we all hear about how you don't want to be sedentary and not doing anything.

But doing the opposite can cause problems as well. Oh, totally. Definitely overdoing it on exercise. I know we'll have talks on this summit about exercise and mitochondrial health as well, so make sure you catch those now, Eric, can we tap into your brain for a second and talk about thyroid medication and how that can affect mitochondria?

Because, you know, you've got, you know, the effects of low and thyroid hormones on mitochondria. So we talk about that and then how thyroid medication might affect it even if we talked about it last time.

We've got new viewers here and it's a you're never going to say the same thing twice, the same way twice. So let's unpack that again. Sure. So, yeah, let's let's do a little bit of a deep dove into the medication.

So we got four for hypothyroidism. A lot of people are told to take antiviral medication in the United States, but then there's always the most common medication, some people are told to take something called beta BTU and then for hypothyroidism, including many people at Hashimoto's, they're told to take thyroid hormone replacement.

So when it comes to antiviral medication, there's a lot of side effects. What the answer to our medication, unfortunately, and it doesn't mean that people shouldn't take the entire medication.

Everything's risk versus benefits. But one of the studies does show how the mitochondria are, how the antiviral medication can negatively affect mitochondria and the liver cells and can therefore decrease liver mitochondrial ATP as well as glutathione, which is the master antioxidant and lead to increase in reactive oxygen species and oxidative stress.

So. So yeah, taking into our medication can have that negative effect on a mitochondria but also need some medicine. I don't know if I mentioned this last time, but research also shows that anti-terror medication can cause gut dysbiosis and affect the intestinal barrier.

So essentially it can cause disruption in the gut flora and a leaky gut. And we just spoke about the importance of the gut, the thyroid, you know, and I didn't really speak about the gut and the mitochondria, but that could also lead to mitochondria dysfunction.

And, you know, I'm sure, again, others will talk about that during the summit.

Infections, Overtraining, and Medication Effects

But yeah, so it's not just the ants that are medication affected of mitochondria, but also affecting the gut microbiome, which could in turn affect those nutrients we spoke about because that nutrient deficiencies which affect the mitochondria.

So so yeah, I mean, it's just scary when you think about, you know, all the different ways taking antiterror medication, the negative effects and again, I'm cautious when saying this because I don't want anybody watching this to stop taking their meds.

I mean, I work with people with grace who still take the medication. I mean, when I dealt with graves, I took something called Bugha Weed, which is a natural herb.

And I mean, I have a lot of people take that, but it doesn't work in everybody. And some people, again, it's just you never know if someone stops the medication, which again, I would never tell anybody to stop it. But and if they did on their own, you know, there are risks associated with that.

But you also got to think about the consequences that I'll have on the mitochondria and then on the gut, which in turn could have, you know, a lot of different impacts, not just on the mitochondria, but as, you know, just your overall health.

So I'm hearing you say that there's definitely some natural solutions for Graves Disease that work for some people. So if you're one of these people that is, you know, has graves and you're trying to avoid medication because maybe you're concerned about, you know, side effects of medication and the, you know, the risk benefit, then get in contact with Eric because you've got some natural ways to help support.

This is what I'm hearing. Yeah. Or even check on my podcast. I have a lot of content on my podcast where I talk about, you know, natural symptom management options and, you know, my, my website and books, of course.

But yeah, the podcast is I always try to come up with up to date information. So, so that would be a good first step to take. Yeah. Tell us where to find your podcast and where to find you online.

And then I have another question for you. Oh, sure. So podcast saved my thyroid, which I love. So my main website is Natural Endocrine Solutions icon.

That's that came out in 2010. But then in 2021, I developed my, I created my podcast, saved my thyroid. So there's actually a website associated with that, saved my thyroid icon.

Or you could just go into Apple Podcasts or Spotify, your favorite podcast platform and just type in Saved My Thyroid and yeah, easily find my podcast that way.

Okay, great. I have a final question here before we wrap up, but can you explain because you did comment that, you know, most thyroid problems are autoimmune and and we have talked about triggers here as well.

But could you unpack for us why most thyroid conditions are autoimmune? And, you know, we talked about, you know, bacteria and viruses being triggers, but I know there's probably some other triggers as well.

So can you can you talk a little bit about that? Why is this? Sure. Well, there's something called the triad of autoimmunity and so with the triad, there's three factors that are necessary for autoimmune to develop.

So we can't discount genetics, which is one factor having a genetic predisposition. But then the two other factors triggers as we're talking about. And then there's also the third part of the triad is that increase in intestinal permeability.

Again, medical term is a leaky gut. That's where you need that healthy gut to have healthy immune systems. So the I mean, a lot of people do have gut dysbiosis, have, you know, that leaky gut.

So that's one factor. But even if they have the genetics in along with that leaky gut, they do need exposure to one or more of those triggers. So we spoke about a few of them that infections, chemicals such as heavy metals, endocrine disrupting chemicals, stress.

So chronic stress is a is also a trigger. And it's, you know, again, arguably over the last few years, it's been worse, but it's always a factor. I mean, it's just regardless of what's happening.

And, you know, the thing is, it's not just the stressor, but probably more important or in my opinion, more important is the perception of stress. And just and that's something I think we all have to work on.

And that's why I encouraged my pretty much everybody I work with as well as people I don't work with, to block out time on a regular basis, on a daily basis for stress management.

Just get into the routine of managing stress just because there's never going to be a time when you're you're not you don't have stressors. And so you really want to get into the habit of improving your stress handling.

So I don't know if you have anything to add. I'm sure you see a lot of stressed out people as well. Oh, yeah. Oh, yeah. Stress is, you know, when we think about the toxin bucket and all the things that go into that toxin bucket.

And in my practice, you know, I focus a lot on infections, you know, parasites and bacteria and hidden infections that are throughout the body. And then toxins like heavy metal, heavy metals, like you mentioned, mold, mycotoxins would be another one that I that I throw in that bucket.

I will have talks on this summit about mold as well. I would add, you know, all the all the toxins that come in from our personal hygiene products are cleaning products that we're using, you know, to keep our houses sparkling clean.

And then the chemicals that are off gassing, you know, off of our building materials that we use to construct our homes, the furniture, you know, that we buy, brand new, our flooring paint, all of that.

I mean, there's so much the toxins, right? The toxins from the food also. We just it's not, you know, like people talk about gluten, but then, of course, a lot of people now are familiar with glyphosate and just, you know, the pesticides that are sprayed on especially non-organic produce and I mean, just ridiculous.

So that's so that's another potential trigger as well. Another reason why you know, we have a greater amount of people with autoimmunity these days. Yes.

And I do a quite a bit of toxin testing and find out almost everyone I test has at least a moderate level of glyphosate, if not a sky high level. And a very rarely do I meet somebody who has no glyphosate, a level or in the green a safe range.

And, you know, there's strategies to remove glyphosate if you have it.

Autoimmunity Triggers and Final Advice

But I'm sure this is also a big contributor with the rise, you know, and I'm making this up right now, but I would expect if we plotted the use of glyphosate along a timeline line in this, you know, in developed countries, namely the United States and Canada, because it is banned in Europe.

And if we plotted the rise of thyroid autoimmune disease right along with it, I bet we would see a rise. Now, we cannot make that correlation just without a study, but we see a lot of things rising with more use of herbicides and pesticides and chemicals.

So I bet we would see a bit of a correlation there. Yeah, I would agree. I mean, it's been shown that glyphosate disrupts the gut microbiome and then also affects those c y p450 enzymes that are involved in detoxification, the phase one detoxification.

And so so yeah, I think without question, like you said, you can't definitively make that connection, but it seems pretty obvious that there is a relationship between the.

Relationship. Other chemicals. And quite frankly, we're probably never going to see a robust random controlled study on this because there's a lot of money, you know, lobbying money to prevent those types of studies from happening as well, because it's such a big, you know, multibillion dollar industry.

The herbicide industry and big food production. So, I mean, this is this is the reality of it. And so people watching summits like this, you are well informed.

You are taking steps to protect yourself. And I just applaud you for being here listening to this. So, Eric, you know, you are always such a wealth of knowledge.

And I just find that you you just explain things so simply and easily. And I really appreciate that about you. What would be your final words for our audience here?

I mean, they're here to improve their energy production, wanting to improve their brain function, wanting to live their best life, enjoy time with their friends and family, you know, be productive, leave a legacy.

What would be your words of wisdom to our audience? And my words of wisdom is that there's definitely hope. But in order to improve your health, you probably have to go outside of the medical paradigm, which is what this summit, of course, is all about.

And so when it comes to, you know, just focusing on thyroid health, there's a time and place for anti-terror medication. There's a time and place for thyroid hormone replacements.

But most endocrinologists, as well as other medical doctors, most won't tell you to do anything for the health of the gut or really just the immune system, even though their immune system conditions still they'll focus on the thyroid.

So you need in order to restore your thyroid health, you actually have to go beyond thyroid. And I'll leave it at that. Oh, that is so good. To restore your thyroid health, you must go beyond thyroid.

That is good stuff. Thank you so much. And you know, we're changing, you know, health. One little interview at a time here, one summit at a time. We're supporting our community in learning more.

And I always say functional medicine is a higher standard of care than Western medicine. And I can say that because I earned the ability to say that I worked in Western medicine prescribing and, you know, prescribing drugs for over 20 years before I fully stepped into functional medicine as my full time job.

This is a higher standard of care, and it is also one of the reasons that it's not covered in most cases by insurance, because insurance does not cover the highest standard of care.

So I'm going to drop it. Drop that bomb right there. Yeah, definitely agree with what you said. Yeah. Thank you so much, Eric. You enjoy the rest of your day until next time.

Everyone take good care. Bye now.