Base Hits 2021 Session One: *Changing the Direction of your Nervous System from Fight, Flight and Fright to Calm, Regenerative Healing*

Week Three: Thyroid - Take the deep dive on thyroid health! *with* Dr. Tom Transcript

Mary Agnes:

Hi everybody. This is Mary Agnes, Dr. Tom's marketing director. I want to remind you all and those listening to the recording that Dr. Tom is here to support with great information, some education and some entertainment, but he is not your doctor. Please make sure you have your own medical team that you run things past, he is not here to give personal medical advice. But you will find the case studies very interesting. So thank you so much. Take it away, Dr. Tom.

Dr. Tom:

Thank you, Mary Agnes. Hallo. Thanks for being here. And I'm going to start with a few slides so that we are on the same page. So let me just bring this one up, and boom. Good. Yes, there we go. Okay. We're talking about thyroid today and most people who have been diagnosed or concerned about a thyroid problem think about the hormone and do I have enough? Do I not have enough? Do I have antibodies? Is there an autoimmune mechanism going on? And that's as far as it goes. So we're going to go a little bit deeper into understanding what happens to the thyroid? How come this thing, this tissue, becomes a little dysfunctional and what's its job?

So, to begin with, let's talk about what its job is. On the wall in your home almost everyone has a thermostat and the thermostat controls the temperature that the furnace works at. And at night-time, you turn the thermostat down in the wintertime so it's still warm enough in the house but you're saving fuel. And then you've program it so that in the early morning before anyone wakes up or gets up it kicks in and starts warming up the house. Thyroid hormone is the thermostat in every cell of your body and it determines how hot the cells run, we call that your metabolism, but it's just how hot's the furnace working? And does it need to kick in right now because there's a window open and there's more cold air coming in? You've had a big argument with your spouse and there's more stress hormone dimming down your vitality and so you've got to turn up the thermostat to get more heat in the house. You have to kick out a little bit more thyroid hormone.

So, there are only two substances for which I know there are receptor sites, catcher's mitts that sit outside of your cells facing the blood streams. There are only two substances for which there are receptor sites and ever cell of your body. The first is thyroid hormone, the thermostat that controls how hot your cells work and we call that your metabolism. And you hear a lot about metabolic function and your metabolism, well, it's your thyroid that controls all that. You set the thermostat. And the other substance is vitamin D, which is why it's so critically important. That's the job of the thyroid is to regulate your metabolism to control how hot the thermos works.

And just a couple of slides of review from when we talked about the adrenals, it's not the stress itself but how the body reacts or responds to that stress that's the problem. How's this cat doing right now? Got its tail up, marching across. It's how the cat reacts to the stress that determines its stress hormones. And just a reminder in order to make it easy to do the right thing we must understand how and why we've gotten to where we are if we want stop the direction our health is going. I reviewed this concept from Prof. Fasano, who you see all his credentials are all at Harvard. This is the guy that identified... so let me back up. He identified intestinal permeability, he and his team, it's called the leaky gut. He identified that back in 1997 and has been working on it ever since to understand it.

Now we know, and almost all gastroenterologists know about intestinal permeability or the leaky gut. They may not know what to do with it, but there are so many hundreds of studies now. It's pretty startling if you come across a physician of any type that doesn't recognize that there is this thing, they don't call it leaky gut because that's not scientific enough, but there is this thing that seems to have something to do with when you get sick. At most every doctor knows that now.

Prof. Fasano showed us that there are five pillars in the development of what he calls the perfect storm in any chronic inflammatory disease. And if you look at the title of this paper, it says it all, all disease begins in the leaky gut, all disease. And so that means, well, what if all disease begins in the leaky gut? And so the five pillars in the development of chronic inflammatory diseases that Prof. Fasano has identified includes genetics, environmental triggers, altered microbiome, that's the good guys and the bad guys in your gut. It gets altered because of the environment that you put down there, which then creates the inflammation in the gut that causes the intestinal permeability, the leaky gut, which then lets these big molecules get through the leaky gut into the bloodstream. And then your system trying to protect you bites these molecules and here comes MS. Here comes rheumatoid. Here comes chronic fatigue. Here comes chronic Epstein-Barr viruses. Here comes psoriasis. Here comes alopecia, losing your hair. Here comes Parkinson's. Here comes Alz... It doesn't matter. All disease begins in the leaky gut.

So when you understand this principle of the perfect storm, then a component of any work you do to get healthier is how do I address the perfect storm? Where am I being set up right now? And if there's one concept that becomes the foundational paradigm that you look through for all chronic diseases, this is it. When you think this way, you ask different questions. You don't say, "Well, what pill do I take to fix this?" Because you understand no pill is going to fix if you keep taking in the environmental trigger, whether it's wheat or whatever it is, you're not going to get well. You can mask the symptoms for a while, but you are not going to get well if you keep throwing gasoline on the fire.

And there are dozens of environmental triggers that have contributed to your specific inflammatory state. But the big kahuna that we talked about last week, as Prof. Fasano says, is gluten and LPS. LPS is the exhaust of bad bacteria in your gut, and gluten, they're the most powerful triggers. And we reviewed Prof. Maureen Leonard at Harvard who read, I think it was 64 different papers on this topic, and she published this in the Journal of the American Medical Association. And she said, "Look, previous studies have shown that wheat causes immediate, within five minutes, transient increase in gut permeability, that's the leaky gut. This process takes place in all individuals who ingest gluten. That means you. That means all individuals who eat wheat, you get this leaky gut. And we know it's because of activating the sentry that stand in guard trying to protect you called toll-like receptor 4, because gluten is misinterpreted by this pathway as a potential harmful component of a bug.

The sentries are inside the first part of the small intestine so anything that comes out of the stomach that wasn't killed by acid, any bugs, the sentry say, "We got an invader here." And then you activate this whole inflammatory cascade and you activate the zonulin proteins, leaky gut, to wash out whatever is there. So the inflammation is to kill it and then the leaky gut gets water in the intestines to wash it out with a little loose bowels or diarrhea. This is just review from last time, but I just want to make sure everyone's got that. And you're going to hear it again and again, because it's the basis of all chronic inflammatory diseases.

Now, from that perspective, we know with autoimmune thyroid disease, that IgA antibodies to one of the proteins in wheat, the most common one that's tested is 16%, IgG antibodies is 51%, and IgA antibodies for celiac is 15%. So half of all people with autoimmune thyroid disease have elevated antibodies, meaning your immune system says, "We got to fight this, there's too much of this to wheat." Half of everyone with thyroid disease. That's why you see so many papers talking about a gluten-free diet is often helpful when dealing with autoimmune thyroid disease.

And in patients with autoimmune thyroid disease called Hashimoto's, so it's HT, and celiac disease not compliant with the gluten-free diet. So if you've got a problem with wheat and you have Hashimoto's and you keep eating wheat, you need to increase your dose of thyroid hormone by 49% to get the same result of the people who go gluten free, which is to get your TSH level down, that's the hormone from your brain that tells your thyroid what to do. But to get that result, you need to increase the dose by almost 50% because, "I'm not giving up wheat. I'm fine when I eat wheat." We'll put that on your tombstone.

So a screening for a wheat-related disorder may be useful to improve the therapeutic thyroid medication effectiveness. It's called T4. Most thyroid medication is T4. And screen, just test, just do the Wheat Zoomer. And we'll put the link here for the Wheat Zoomer. And if you test, and you can do a finger prick at home, you don't even have to go to the doctor for this now, you can just order the finger prick test. And if it comes back positive, you need to give up wheat. So I never say that everyone needs to give up wheat, but everyone that has a health concern needs to check and see, do you have a problem with wheat? And if you do well, it's up to you, but at least now you've identified it.

Mary Agnes:

Dr. Tom, we have a really interesting question that came in that feels really timely at this moment. Can I ask it?

Dr. Tom:

Of course.

Mary Agnes:

Okay. It was just sent in. Dr. Tom, you mentioned that sometimes you can have gluten antibodies because of molecular mimicry, can having ochratoxin A score of 17, the range is one to seven, be the cause of my really high anti-gliadin antibodies? I have been completely gluten-free for 17 months and failed Wheat Zoomer, also really scratching my head on this.

Dr. Tom:

Yes. Oh, absolutely, it can. Absolutely. And what she's asking you about is the exhaust from mold, and if someone's exposed to mold or they have a mold concentration in their body, they'll have the exhaust in their urine. They'll also have antibodies to fight the mold, but yeah, absolutely, it can. That's just below the common food sensitivities, that if the common food sensitivities are not identified as being the potential trigger of molecular mimicry, then mold antibodies are very common, extremely common. Thank you for that, MA.

Mary Agnes:

Sure.

Dr. Tom:

Let me go back to sharing my screen now. And here we go. Good. Okay. And I put this in here because this is about a bacterial infection called Helicobacter, H. Pylori. Over 50% of the population has H. pylori infections. And they identified that with H. pylori there are different families of H. Pylori. And the CagA, C-A-G-A, the CagA protein is a common family, and we back up to that for a minute. Cag stands for cytokine-associated gene, which means the inflammation. So you get much more inflammation if you've got the type of Heliobacter associated with CagA. Now the correlation between antibodies against CagA and thyroid stimulating hormone is substantial. Significant means this is a big deal, as well as the correlation between CagA antibodies and TPO antibodies, the number one antibody that you look for autoimmune thyroid disease.

And this is the geeky stuff, but you see here, and from going up and down, these are antibodies to thyroid stimulating hormone and going from left to right, these are antibodies for the bacterial infection. And you see there's a lot more concentration in this upper right section, meaning the more antibodies you have with the bacteria, the more antibodies you have to thyroid stimulating hormone. And they say, we show that both thyroid peroxidase antibodies and thyroid stimulating hormone levels were directly and significantly correlated with antibodies to the Heliobacter infection. And subgroup analysis also revealed that patients with hypothyroidism had increased frequency of antibodies to Heliobacter. So I'm showing you this because it's not just gluten, it's environmental triggers, and there are a number of bacteria that can do this, not just Heliobacter.

I just want to make you aware of the five pillars in the development of chronic inflammatory diseases. And when we're talking about thyroid, you have to keep in mind, could be a food sensitivity, could be a bacterial sensitivity, could be a viral sensitivity, could be environmental triggers. I've shown you this before, but what's happened to us, all the way over on the right, this guy, and you and I both grew up

mostly drinking this kind of stuff. And the chemicals in here accumulate our bodies and the chemicals that we're exposed to today as they accumulate they cause more fat deposition. You get more fat from the chemicals you're exposed to. And there are many triggers that contribute to the end result of advanced inflammatory diseases. Foods is one of the most important of course, but arguably not the most important. I showed you this last time when we were talking about the adrenals, stress is a central player. And the alterations of how your brain talks to your adrenals, talks to your thyroid, talks to your reproductive system, stress is a huge player on that.

Now what I want to show you here is that the hypothalamus, that's the area of the brain that makes the decisions about how much hormone to make, is there a threat right now, fight, flight or fright? How much testosterone should you make? How much estrogen should you make? And that message gets sent to the desk sergeant at the police station in the brain called the pituitary. So the boss, the captain, tells the desk sergeant, "This is what I want done out there." And so the pituitary sends the message to the adrenals and to the thyroid and to your reproductive system of what to do. Now, what happens when stress comes into play here, stress goes right from the hypothalamus and the brain says, "All right, we got a big problem here right now." It sends the message to the pituitary, "Get to the adrenals. Get to the adrenals now. Get more soldiers out there. Get more stress hormones out there. We've got to protect ourselves."

And that's the whole development of the adrenal dominant response that we get when that's called sympathetic response, the fight, flight or fright response. Not supposed to happen too often. I talked about it's supposed to happen three to 5% of the time given what the anatomy of our body is, how thick are our nerves and how much are we supposed to do there? But when it happens more than that, activating that system more, they start to wear down and you go into sympathetic fatigue, sympathetic exhaustion, sympathetic depletion. And remember you never get a disease until you're in sympathetic depletion. So the adrenals are really important to work on, but they don't fix the problem. You've got to deal with the stress. And if it's emotional stress, maybe it's a toxic relationship, and if the partner refuses to work on it, maybe you need to make new arrangements. I don't know. But you can't keep having that same level of emotional stress. And the adrenals are the first combination that we should unlock in the gateway to hormone balance. Got to deal with the adrenal glands.

And then when the adrenal glands wear out, the next messenger that takes over, that tries to carry the load, is the thyroid. So when the adrenals can no longer handle the stress of life and you're in sympathetic depletion, the thyroid starts kicking up more and you just run that thyroid more. You run that thyroid more. You run that thyroid until that starts freaking out and wearing out. And then when the thyroid wears out, now it's hormones that have to try and carry the load. That's not their job, but they've got to carry the load of the stress that we're being exposed to. And so our systems get knocked way out of balance. And you want to fix all that, you got to go back and fix the players that have been overtaxed and underpaid. Their bank accounts are dry. And so it takes six months, a year, two years to rebuild your adrenals, to rebuild your thyroid to get your system back and running again.

When we're dealing with thyroid, one of the important minerals is iodine. You hear some doctors say, "Oh, there's too much iodine out there." Some doctors say there's not enough. We put iodine in our salt, that's Morton's iodized salt. Goiters happen when there's not enough iodine in your diet and your thyroid swells. And a lot of people have this anxiety that comes from having enlarged thyroids. And

some of the discussions that happen, there'll probably be some questions in there about, well, what about these goitrogens? What about these foods? And we'll talk about those in a minute, but first I want to talk about the halogens. There are a group of elements that include iodine, chlorine, bromine, fluorine, and astatine. Molecules of thyroid hormones contain iodine in their structure, but if you're exposed to the other halogens in too high a concentration like fluorine and chlorine and bromine, they have an ability to push the iodine out of those molecules making them really dysfunctional. They'll sit in the docking station and the iodine can't get in, and you get hypothyroidism from an iodine insufficiency getting into the cells. And your blood tests can be fine for iodine, you've got plenty, but it just can't get into the cells. That's a big problem with chlorine and fluorine and fluoride is how they affect the thyroid. That's why one of the reasons why all of us should have water that's filtered to get the chlorine out of it.

There's no need for chlorine in your body because of the amount of crud in our water nowadays. And I always wondered, in Chicago, going on the South Side, Chicago, and you see out in the water in Lake Michigan, a couple miles out, there is the pumping station out there and they're pumping the sewage out into the Lake after they've cleaned it, but they pumped the residue out into the lake. And then if you go to the North Side of Chicago and you look out on Lake Michigan, you see the pumping station out there is taking water and bringing it in. And so we bring the water in, we drink it, we flush it down the toilet with our hormones and the chemicals that are in our water and then we throw it back out into the lake after we filtered it. And we've been doing that for 50, 70 years. Don't you think that has an effect on the quality of the water?

So we need chlorine to filter the water, to sterilize the water to some degree, but consider a home water filtration system and what kind? The best one that you can afford. If you can only afford a little Brita that sits on the countertop, that's better than nothing. And if you can afford a whole home unit, that's the best. And we'll post a link here for a water filtration system so you can see the kind of systems that we recommend.

Now, what about these vegetables? There are vegetables, they're called goitrogens because they may contribute to a goiter. And some doctors say they're not a problem, some doctors say they are, well, let's look at what my mentor Jeffrey Bland says about this. And there are many studies, I just took out the references that he's using in making these statements. Goitrogens block iodine. They can do that. There's no question they can do that. Soybeans and the Brassica family of vegetables are goitrogens, which appear to reduce thyroid hormone output by blocking the activity of TPO, that's the enzyme responsible for adding iodine to the thyroid hormones while soy foods and Brassica family vegetables like turnips, cabbage, broccoli, cauliflower, Brussels sprouts, mustard greens, kale, kohlrabi, rutabaga they're the primary sources of goitrogens. They're also found in small amounts of peanuts, pine nuts, millet, peaches, strawberries, spinach, and cassava, which means, they're in the diet. You can find them in the diet and the good guys that are in those foods called isoflavones and isothiocyanates are heat sensitive.

So limited research suggests cooking, specifically boiling, lowers the availability of these substances. So it might be when you cook soybeans in high heat, you lose some of the benefits of them. However, since boiling crucifers result in the loss, not only of the goitrogens, but of important nutrients as well, patients for whom goitrogens may be a problem, so if you've got a thyroid issue, the advice is to briefly steam these vegetables and consume them in modest amounts because they've got some really great benefits

for you, but can they block your thyroid hormone? Well, in sensitive people, they might, but if you steam them, you reduce the possibility of that happening.

Now, we used to do this in our practice all the time. You get a tincture of iodine, you get at the pharmacy, it's like four or $5 for this little bottle of iodine. It's found in emergency survival kits. It disinfects wounds, sanitizes surface water for drinking, kills bugs, doesn't kill worms, but it'll kill bacteria and viruses in your drinking water. But we used to take it with our patients and when you unscrew the cap, there's an applicator tip on it. So you just unscrew it and then you just paint a square on the patient's abdomen. So just pull his shirt up and paint a little square about the size of this part of my hand, maybe even half the size, but just whatever's on that one applicator tip and you rub it on there, just paint it. You get a nice red square.

And if you have enough iodine, the theory is that, and don't exercise that day or apply this after you've exercised and don't shower after you've applied this and the stain should still be there 24 hours later. It doesn't get absorbed, but if you have an iodine insufficiency, your body is going to go and pull it right up and you look in two hours sometimes it's gone, oh, you need a little iodine. So if you can't afford to get a blood test or a urine test for iodine, you can do a tincture of iodine. It's like five bucks in the store. You do it with your kids. You can try it on everybody and see who has the red square tomorrow morning and who doesn't. I've used it now for 40 years, and there are a couple of studies that say, "It seems to be more or less accurate and certainly not going to harm anybody." You don't want to take extra iodine unless you need it. And if you need it, then you take some but this is just a simple way of seeing about that.

So, I mentioned last time about betrayal. We talk a lot about thyroid autoimmune diseases in betrayal. This is free to everyone at thedr.com/betrayal. And we have an entire certified gluten practitioner program that I train healthcare practitioners in this, and that's the URL for that. I just sent them an article this week, a really interesting article, but I send articles to them on a regular basis to keep them up to date.

So, I'm going to stop sharing now, and I'm going to go to the questions and let's see where our questions are today. So here's the first one. Let's see. Okay. I learned from one doctor on HealthMeans that we are meant to live 80% parasympathetic and 20%... Well, according to the anatomy, no, it's higher than that for parasympathetic. I learned our parasympathetic state relaxed should be even higher. That's right, 95, 98%, two to 5% sympathetic. So the only reason to be in sympathetic is to handle stress, fight, flight, or freeze, otherwise we should be para... that's exactly right. So sympathetic is only to deal with the stress response. Yes, as far as I know. And stress is good for you. I mean, there's no way you build healthier muscle unless you stress the bicep. So you've got to stress it. And there's an amount of stress that's good for us. We wouldn't grow and develop and stay toned and fit if we didn't have some stress and you have to walk uphill once in a while to keep your heart working well.

Sympathetic is only meant for the acute stage and should pass quickly and then go back to parasympathetic, do I have that correct? Just trying to figure the only reasons we should be in sympathetic. Yeah, that's exactly right. That's a really good summary. As long as you don't get fair and say, "Well, we should never be in a sympathetic state." No, that's not true. Of course, we need a sympathetic state, two to 5% of the time. That's what our anatomy would allow for without having

detrimental side effects. No questions by me to learn about this because my thyroid adrenals female hormones and monthly migraines are a problem all my life. Well, that one slide relates to you, doesn't it? I found function meds five years ago and I'm all in. Thank you. You're very welcome.

What are some of the root causes of thyroid dysfunction and common root causes for low T3? Well, there's five pillars in the development of chronic inflammatory diseases. It can be bacterial, as I showed you about the CagA antibodies. It can be gluten. It can be goitrogens, excessive goitrogens. There are some studies I didn't show you today, but other environmental triggers, Bisphenol A, BPA, is a really common plasticizer chemical used to mold plastic, and it binds onto your thyroid. Now you've got, what's called a neoepitope, a new cell, and your immune system, "What's that? That's not thyroid. There's something on that thyroid. That's a mutated thyroid. So I better kill that."

And now you make antibodies to that neoepitope to get rid of it and so you damage the thyroid cell and then your body makes more antibodies of thyroid to get rid of the damaged thyroid cell to make room for new cells. And it was triggered by BPA molecules binding onto the thyroid cell. While you're drinking bottled water every day, and from plastic bottles because you heard it's healthier for you and it is, but not the plastic that should be glass bottles. And so you're getting BPA every day or quite regularly. And your genetics allows it to bind onto your thyroid so you keep making these neoepitope cells that your immune system says, "Whoa, what's that? I better fight that thing." And then you're doing this merry-go-round and you develop Hashimoto's thyroid disease from it. So there are many environmental triggers that can set this off and you have to look to your immune system to see where's it coming from.

What do you do after you assess autoimmune in your thyroid is metals is the number one reason? No, emotional stress is the number one reason, but metals are very common. So once you're identified with an autoimmune condition, you have to go back and look at the environmental triggers. Are they metals? Are they foods? Are they a combination of chemicals and metals and foods? What's my microbiome like? There's five pillars in the development of chronic inflammatory diseases. I'm sorry, if you want a simple answer, it's not simple. What is simple is to understand there's five pillars in the development of chronic inflammatory diseases, and you always have to deal with the gut. We'll talk about that in the future, how do you rebuild a healthy gut? You always have to deal with the gut and identify the environmental triggers that are setting you off.

What supplements you recommend I take besides GS Support Packs for general overall health? Oh, well, vitamin D. Make sure your vitamin D levels are robust between 50 and 75 nanograms. Colostrum for a few months, GS Immuno Pro. We'll put the links here for it because nothing plays the entire symphony to create a healthy gut like colostrum. It's really great for you. But aside from that, those are the basics. Some extra vitamin D, maybe some extra vitamin C, four to 8,000 milligrams a day if you're having a little more stress in life. The highest concentration of vitamin C we talked about last time is in the adrenal glands. So it depends on where you are. The whole concept of herbs that I talked about last time, adaptogenic herbs, they tell the general contractors at your new cell sites what to do to build stronger cells. "Take these two-by-fours and these nails and make a stronger foundation," that's what adaptogenic herbs do. So we'll put the links in here again for the adaptogenic herbs.

Thank you for sharing so much knowledge and experience with us. Such a gift to all of us struggling with... I get it. So I'm so happy to do this. I recently read that high thyroid antibodies synonymously

mean they are attacking the thyroid although they are circulating in the blood. The article said the only way to tell if the antibodies are destroying ones thyroid glands is in the aspiration of the gland to evaluate the tissue condition. Can you comment? That's a theory. Common knowledge with immunologists, you have elevated antibodies, you're attacking whatever that tissue is. That's elevated antibodies. So there's a normal level of thyroid antibodies, that's not a problem if you're within the normal range, but when you have elevated antibodies, by definition, they're attacking the tissue. That's their job. That's what they're made for. Also, do you see cases where a person has normal thyroid hormone markers, but high... Yeah, of course, very common. So normal thyroid hormone markers, but high thyroid antibodies, yes. So they are neither hyper or hypo thyroid. Not yet. Please comment on this. Well, that's the way it happens.

First, you start killing off the thyroid and killing off the thyroid and killing outside, and eventually your thyroid can't work very well anymore. And now you get hormone imbalances, thyroid hormone imbalances from it. That's the most common mechanism of how it occurs.

What are the most important supplements to improve T3 levels and what time of the day should they be taken? Selenium is critically important. Selenium, the highest source of selenium is in Brazil nuts. If you eat two Brazil nuts a day, two, is all it takes, you get enough selenium over time. Now, if you're extremely deficient, it'll take you a few months to get up to the those levels, but two Brazil nuts is the maintenance level of selenium that you need. It's not the restocking level, but it's the maintenance level. Iodine is critically important. Talked about that already. Those are the two big kahunas, enough protein, the B vitamins are critical in function of thyroid hormone so you want to include those also.

What do you do if your thyroid antiglobulin keeps going up? Just go back to the five pillars and investigate where's it coming from. You can't suppress it, you have to find out why is this happening? And so you have to investigate, why is this happening? Thyroid cysts, are they related to heavy metal accumulation? They can be. There have been a number of referencing to that over the years, so it doesn't mean it's always heavy metals, but it can be.

I have function doctors who say to leave them alone and other path doctors who say to remove them, any wise general advice about thyroid cyst? Afraid I don't really have an opinion. I would certainly look to see where am I toxic? Where's this coming from? And I would put a castor oil pack on it. Castor oil packs, there's a really great book called *The Oil That Heals*. It's on Amazon. It's a little paperback book that you can read in a couple of hours. It's a doctor, 50 years in practice, and he talks about all the uses of castor oil and he talks about thyroid cysts in there and how he uses them for that. But I would not ignore it. No, absolutely not.

Would you recommend any supplements to support adrenals? Well, that's what we did last time. And you can go back and watch that one. Do you have to be actively eating wheat or gluten for Wheat Zoomer to be accurate? No. It's extremely rare to find a Wheat Zoomer to come back negative on someone that's been gluten-free for two years. It's extremely rare because people either have molecular mimicry with some other food or they're getting some contamination from somewhere. Does rice have gluten? Yes, but gluten is not bad for you, bad gluten is bad for you. And the bad gluten is in wheat, rye, and barley, and all the derivatives of wheat like spelt and couscous, they're all wheat and so you can't do those.

I use Apex Energetics GlutenFlam for several months, no success with it helping lower my super high anti-gliadin antibodies. I only eat 100% gluten-free and only at home, is it worth trying... Oh yeah. It's apples and oranges. GlutenFlam was put together many years ago and it was a helpful product, still is a helpful product, but new technology and new research has shown us so much more. WheatRescue is the cat's meow if you've heard that term before, the cat's meow.

Is it worth trying WheatRescue, MegaGuard or EP3 Plus or E3 Advanced Plus, I think you mean? Yeah. WheatRescue, MegaGuard, I'm not familiar with that product, or EP3 Plus, and how should I use them to help me lower my gluten antibodies? And can they help me pass Wheat Zoomer? Yeah, they'll help if you're getting any inadvertent exposures, then you take them just before a meal in case there is something you're being exposed to, but it could be that it's corn that you're sensitive to corn and you haven't done the Corn Zoomer. And if you have a sensitivity to corn or to dairy and you eat corn, because it doesn't make you sick, but it could produce wheat antibodies. That's what molecular mimicry means and cross-reactivity. The cross-reactivity is when you eat the food that's different, but your immune system gets activated, protects you against things you're already sensitive to. So you eat the corn, and you get corn antibodies, but you also get wheat antibodies. So for someone whose wheat antibodies were going up like that, I would look to Corn Zoomer and Dairy Zoomer and Lectin Zoomer to rule out the most common foods. And if those are negative, then you're looking at a bacteria or a virus in your microbiome most likely causing that.

My hair tests mineral analysis shows I have a fast forward metabolism, sympathetic dominance, complete burnout. Well, welcome. Most of us have experienced something like that. I have low four electrolytes with critical nutrient deficiency, way to go to be exploring this. My DNA test also shows I'm a poor absorber, can't even process natural vitamin D from sunshine. Besides taking probiotics to heal leaky gut, how can I force myself to upregulate and heal? I have chronic constipation, Raynaud's syndrome, I wonder if improving my vagal tone is the missing link. It's always helpful to improve vagal tone, always. I had no idea you were 69 years, you're the epitome of health and such an inspiration. Aren't you sweet? Thank you so much.

Let's see. Probiotics will not heal leaky gut. Probiotics are a component of healing a leaky gut, but there's an entire protocol that will take an hour to do and so we'll do it in one of the future sessions. But it's in my books also, you need to eat root vegetables, prebiotics, fermented vegetables, probiotics, applesauce, bone broth. There's a number of things to do to change the environment of your microbiome and probiotics are a component of it. We thought 30 years ago, "I'll give probiotics, I'll heal leaky gut." And it would help, but there's more that has to be done than just that.

Do you have any suggestions on insomnia? Yeah. Stop watching television at night and stop going on your computer at night. That's the first thing, turn off the internet nine o'clock at night and there's a product called kava light, K-A-V-A L-I-G-H-T. It really helps with anxiety and being wired up and just calms you down. Kava kava is a great herb and kava light is from Sun Horse. So we'll put a link in there for you, for Sun Horse. Try that and see if it doesn't help. Can Epstein-Barr virus be a root cause for Hashimoto's? Absolutely. The brain H Zoomer showed high Epstein-Barr and a one IgG moderate, VCF of 125 IgG moderate, [inaudible 00:41:56] IgG, I have a consult scheduled with Michelle in April. Excellent. Way to go. Yeah. You've got a viral infection here, a couple of them, high concentrations of these viruses and your immune system's trying to fight them.

We all get these viruses, but when they are like a runaway train, you've got to slow them down. You've got to put a brake on them. How do you do that? By strengthening the immune system? How do you do that? By stop taxing the immune system so hard and then supply the nutrients that will help support the immune system so you have to identify what are the environmental triggers that are setting me off? What is my immune system so busy working on that it doesn't have enough energy to keep the virus in check? And so the virus took off and now I have to make more antibodies to fight this virus. So five pillars once again, it's the five pillars.

Someone asked about electric blankets in the last session, I use an electric blanket in my bed during the wintertime, not anymore, not if you're my patient, you don't, I switch it on while I get changed and ready for bed, then I switch it off when I go to bed. I lay on it. Does the switched off electric blanket still interfere with my bioenergetic body field? That's an interesting line of thinking and I don't know. I don't know that that's a problem. I really don't know. I'd suggest a down comforter and a pure cotton organic sheets, and that usually keeps people toasty.

I used to have a waterbed when I was an undergraduate in college and water's cold. And so we had electric blanket underneath and then sheets on top of that. And I didn't know back then about that but never turn the electric blanket on when you're around it, so that probably... What I also did because I read something about it is that I had the electric blanket over the water bed, then I had a sheepskin on top of that. And then I put the sheet, the fitted sheet, on top of the sheepskin and electric blanket and the sheepskin would neutralize some of that energy. Well, my hair was down to my waist back then and we were doing those kinds of things so it may have helped a little bit.

I watched a different talk with you and another practitioner in HealthMeans about oxalates and salicylates, I'm still confused. How can you test if a person is reacting to them? Does chlorella contain oxalates? I'm sorry, I don't know if it does. Does its metal binding properties outweigh the negative side effects? I don't know that chlorella is negative for you and I think some people can thrive really well with chlorella. Some people have a sensitivity to oxalates. I have a sensitivity to oxalates. When I eat spinach, I get a really dry kind of taste in my mouth. And I've said, "You know what? I just really don't like spinach very much." But Popeye, I just don't like spinach and I don't like the taste in my mouth after spinach. I've never had a problem with high oxalates, but I had a high oxalate level one time and so I just stopped eating the high oxalate foods and it went down in about three months. It's not a problem anymore. I haven't checked in a few years, but I don't suspect it's a problem.

But I'm sorry, I just don't know about the... I'd never say that oxalates are predominantly negative. There's some really good benefits to those foods that are high in oxalates. There's a reason for them, but it's just your genetics that determine that.

Thank you for taking my question on the Wheat Zoomer test. The score came back as 4.6 in the red and intestinal permeability is 3.2 in the yellow. It came back positive in IgG for zonulin, gluteomorphins, high molecular weight, glutenins and serpins. On the moderate side, it showed IgG for actin and pyronin. I've been 100% gluten-free for 14 months, way to go. The classic example here, personal products as well, trying to heal my gut for that long as well. My provider thinks that I have at toxoplasma gondii parasite and mold. Confirm with GPL mycotoxin test showed ochratoxin A at 17 when range ends at seven. Yeah. And that this is a case of molecular mimicry, could be, likely could be.

Does this test rule out molecular mimicry since there's tests at peptide level? Okay. Oh no, it easily can be mimicry. Or does this test mean that I am for sure getting exposed to gluten wheat? No, it does not. It sounds like you've been educated. You're squeaky clean at that. And you may have an inadvertent exposure, but with the numbers that you have, it's more likely some type of molecular mimicry. It can also be viruses or bacteria. In your case it sounds like it likely could be mold. That's the first place that we would work with you to get that ochratoxin A level down. This is also confusing. Yes, it is. That's why we go to school for many years to learn this stuff and then doctors come out and they stay rigid in what they learned as opposed to stay expansive and listen to people like Fasano, who is just a genius, to help us think bigger pictures. So it is overwhelming.

That's why the most important thing you can do is really dig into the five pillars in the development of all diseases. You don't have to understand all the different aspects of it, but you dig into this and this is the roadmap that you use to explore why is something happening to me? What are the environmental triggers? And then it's just experience. And our team at theDr.com is extremely experienced at this. For those people who have been putting their time in and they don't quite have the answer yet, you might want to think about working with one of our people at theDr.com.

What do you recommend for people with high LPS levels? Well, make sure you've got life insurance. You've got to get the LPS down. You have to identify where's it coming from you. It comes from the gut most likely. You have to rebuild the microbiome. High LPS is, as Fasano said, it's LPS and gluten are the two most powerful triggers causing intestinal permeability. And so you have high LPS, it means your microbiome is way out of balance, most likely. And you got to dial that in and find out how is it out of balance? Why is it out of balance? What do I do with this? That would be a critical thing to take a look at.

Okay, everyone, that's all the questions. And I know that it gives you more questions than answers in some cases, and that's good. This is an exploratory adventure together to figure out what questions do I need to ask for myself and my family and where do I need to explore? That's our goal here in this space hits program. And in this first section of parasympathetic, sympathetic is to understand the adrenals. They handle the stress first. When they go down, the thyroid tries to carry the load and it can't. It's not designed to do it. And so your thyroid can start to wear down and you get these hypo thyroids and autoimmune thyroid conditions. And then you're trying to fix the hypothyroid, but you can't, you got to go back and deal with the adrenals also so that you have some resiliency. And that's where the herbs come in, the adaptogens and the proper nutrition to rebuild adrenal glands. That's the first one we did a couple of weeks ago.

Okay. I think that will do it. Mary Agnes, are you still there?

Mary Agnes:

I am here. Dr. Tom, we got one more question that I think is really worth answering. Can mold exposure from decades ago affect you today and end up in labs now?

Dr. Tom:

Oh yes. Oh my goodness, yes. If you have a mold infection in your body, meaning it's in your liver or it's in your body and it's creating these metabolites, well, the first thing, if your tests come back positive for

mold exhaust, you have to check your house. You've got to do a professional inspection of the house, because it's not obvious, it's behind a wall sometimes and the wall looks fine. You can't see it, it's behind the wall. Absolutely. And it can be there for years and years and years and be the trigger for different degenerative diseases, inflammatory diseases, and even cancers. So absolutely.

Mary Agnes:

There are two things worth mentioning. One is Margaret Christensen's mold event on HTO is coming up and I put the link in the chat and what your talk is about, the blood-brain barrier, and mold is also a topic that's coming up in your summit with Dr. Evan, the hidden causes of fatigue. (Note this event is not until early June)

Dr. Tom:

That's right. Thank you so much. We'll be launching this summit soon. Mary Agnes, we've interviewed just a bunch of experts from all over the world and we had some really good discussions about mold in there. And so that'll be coming up pretty soon. MA will tell us when that is.

Mary Agnes:

I will. I dropped the links to both Margaret's and yours. Margaret comes up in April, I think, and yours is a little later in early June. Your talk on Margaret's event, the Mold Summit, was so good that I bought her event just to have your talk and I work for you.

Dr. Tom:

Oh my gosh.

Mary Agnes:

Yeah. I was like I couldn't take notes fast enough and I thought this is absurd, I just bought it.

Dr. Tom:

Oh my God. Yes. Well, you should tell me that and I'll get it for you next time.

Mary Agnes:

Somebody asked if they can take both Thrivagen and Maca drive?

Dr. Tom:

Yeah, I don't know why you'd want to, but you can. There are a number of Maca products out there. The Maca and Thrivagen comes from 8,000 feet in the Peruvian Andes. It is from the University of Peru. It's the original Maca that most of the research has been done. Now what's happened in the last 15 years is there was a whole market for Maca, and now it's grown down at sea level and lower elevations in mass quantities. And it may be organic, which is great, it's not the same plant. So, the Maca and Thrivagen is the cat's meow.

Mary Agnes:

Now that's a Sun Horse product, right?

Dr. Tom:

That's correct.

Mary Agnes:

I put the Sun Horse link in for everybody so that's in the chat also and I'll get you guys the notes. Also Anna Cabeca has a good Maca product for post-menopausal women specifically, so-

Dr. Tom:

She does. So if you want to take just Maca, look to Anna Cabeca's product. It's really a good one.

Mary Agnes:

One more question was raised in here if you have a second, then no more questions. We're going to let Dr. Tom go. My son with Hashimoto's and Graves' disease had Neural Zoomer positive for anti-100B IgG/IgM high risk and anti... oh, goodness, I can't. Dr. Tom, I'm going to put it into the chat for you because I can't even read all that.

Dr. Tom:

Okay. Just one moment. Let's take a look here. So it's a Neural Zoomer and not the Neural Zoomer Plus, okay. Good that you did a test. That's good. S100B is a marker of a breach of the blood-brain barrier, leaky brain, and IgG high risk and herpes simplex 1 IgG/IgM high risk with... He's got a herpes infection. And there's 248 studies, the last time I checked, there's probably more now, on herpes simplex 1 and Alzheimer's. So you want to deal with a herpes infection, well, how do you do it? It's a viral infection. Why is your immune system allowing this virus to grow and not take care of it? And then the antibodies have to come into fight all this extra virus that's there. You really want to work with a professional like our team or a certified functional medicine practitioner to find out where are the deficits in your son's metabolism right now, what's draining him? What's draining his immune system?

You're getting an early marker here that his brain is on fire and that there's always collateral damage with brain inflammation, always. And it may take years before it manifests, but there's always collateral damage with a breach of the blood-brain barrier. My book, *You Can Fix Your Brain*, is on that exact topic. And I talk a lot about both of those markers in the book. It's on Amazon or it's on our website, *You Can Fix Your Brain*, and it will drop your jaw when you learn all the potential environmental triggers that you just got to go down the checklist. Are you using Tupperware? Get it off the checklist, get glass containers. There's just one after the other, after the other.

Mary Agnes:

Dr. Tom, I'm going to put the link into *You Can Fix Your Brain*. I want to recommend out loud that everybody get the audiobook. I personally talked Dr. Tom into doing the audiobook himself, and it's one of the absolute best recording. I mean, I'm a big fan, of course, but you get to hear Dr. Tom speaking this. So I sometimes listen to it when I go to sleep because I like to know these things to ask the right questions to support you all. How can we tell if mold is from environment or food?

Dr. Tom:

You need a certified inspector to come to your house. It's the only way. There's a whole protocol to follow. It's not easy. It's not simple. You need to have somebody do a professional evaluation of your house. As far as I know, Dr. Jill Carnahan has got lots of information on mold on her site with the list of some organizations of certified practitioners.

Mary Agnes:

And Dr. Evan Hirsch also has the type of mold inspector you want. There's a specific certification you want to look for.

Dr. Tom:

All right, everyone. Thank you so very much. And I will see you next time. Thank you.

Mary Agnes:

Thank you, Dr. Tom. Bye everybody.