Base Hits 2021 Session Two: Autonomic Balance and the Brain
Week One: Anxiety with Dr. Tom Transcript

Blue Cross Blue Shield, is arguably the largest health insurance or profit company in the English language. I think they are. They're about making profit. All insurance companies are about making profit, if they're publicly traded. And they came out with an article last year, that was shocking, just shocking. And I wasn't going to put it in the slides tonight, but I'm just going to bring this article up this couple of slides about it to show you. Because I think it's so important or this topic that we're talking about, which is about brain function.

Give me a moment while I'm looking on my screen as I have to pull up one of my presentations and pull two, here we go, this one will have it. I'm sure they do and let's open this one up. There is a presentation I gave in Lisbon, Portugal, a couple of months ago and here are the slides. Okay, so let me bring this one up like this and then we'll go here and can I share? No, I need to be in a different screen to hit the share screen button. So, let me get to there and share the screen. Good, I'm sharing the screen button.

So, before we share the screen, I'm going to show you the best anti-anxiety therapy in the world. This is the best anti-anxiety therapy in the world. Whether you're a parent or a grandparent, an auntie an uncle and having such a loving little bundle of joy to work with and be with and learn from. With that, let me just... Thank you, darling. My wife just told me I had some food in my teeth, which I didn't want to keep, so thank you so much. All right, so now I'm going to share a screen with you. I'm going to show you a couple of slides that we're going to begin with because of this topic. And it was the Alzheimer's Association, they came out last year and told us that one in three seniors dies with Alzheimer's or another dementia. So between me, Mary Agnes and each of you, one of the three of us will die with dementia. And it ain't going to be me. I'm doing my best to make sure that's not the case, right? But that's the current statistic. Now, that's pretty scary.

And in the last 15 years, we have seen a decrease in many of the diseases causing mortality. Breast cancer's down 1%, prostate cancer down 7%, heart disease down 11%, stroke down 16%, HIV down 55%, Alzheimer's up 123% in the last 15 years. And if you look by state and what's the projected increase by state in the next four years, because this was from 2018 to 2025. So by 2025, what do they project the percentage of people in each state is going to be with Alzheimer's. And you can see that the lightest color is 13 to 20% increase in seven years. The darkest color is 40 to 47% increase in seven years. And so, but now it's by 2025. And so this is a startling and awakening and it scares the heck out of us. Most of us know someone that had a heart attack, they survived, they changed their diet, they started exercising. They look better than they've looked in years.

Most of us also know someone that was diagnosed with cancer, they followed the recommended protocols. They put it into remission, they're looking great and doing great. None of us know anyone diagnosed with a brain deterioration, that's doing great. It scares us and so we avoid the topic, we don't talk about it. And we really have to be aware of this because here's the Blue Cross Blue Shield, early onset dementia and Alzheimer's for younger Americans article that came out last year. In February of last year. And what did they tell us? In four years, from 2013 to 2017, there was a 200% increase in diagnosis of Alzheimer's in the 30 to 64 year olds. We think it's an old person disease. No it's not, not anymore. A 200% increase in four years, not in 40 years in four years.

And the average age was 49. And when they broke it down by shorter age brackets, there's a 407% increase in the 30 to 44 year olds. The young adults and 200%, 240% increase in from 45 to 54 and a

90% increase from 55 to 64. The younger people, their brains are killing off brain cells, killing off brain cells, killing off brain cells faster, faster and faster and faster than ever before in history. Now Blue Cross Blue Shield, a profit already company is, "Hey, look at this, we got a problem here." Because it's very expensive for health insurance to cover Alzheimer's patients. So I wanted to show you that and I'm going to stop sharing now for a moment and say welcome. But this topic of anxiety, depression, brain function and brain dysfunction is such an important one. I think it is the pandemic that's here now that no one argues it's here, If they're looking at the literature.

And the other things that we're dealing with right now, you've got lots of people that are just lying through their teeth. And I'm not going to get into the politics about any of that right now. But there are a number of agendas going on that are forcing us to live our lives a particular way. But this one about Alzheimer, no one argues with this one about Alzheimer's no one does. So now I'm going to share some slides and I'll do probably 15 minutes or so of these slides to give you an overview. And then we'll go to the questions and start... Now, remember this slide that we talked... And I'm going to come back to these slides in answering many of the questions. Okay, so let's share screen again. And now I'm going to go to the slide, this slide. Is that the one I want? Yes, it is. Okay and we're going to bring it up here so I can start. So the first thing to think about when we're looking at, "What's my current state of health and what degree of danger am I in?"

And It depends on your baseline right now. Where are you starting, what's your baseline? Some people are living a really squeaky clean lifestyle. They've been at this for a number of years, they've learned a number of the threats and they've eliminated most of them. And minimize the rest of them as best they can, so that their resting level of inflammation is the green line here. That there... They have a low inflammatory status at baseline. Others have not yet learned about this and so they're not aware of the number of environmental triggers that you're exposed to. And that means everything from the air you breathe to what's on the end of your fork. That's the most common environmental trigger. Because you take something from the outside environment and you put it inside your body. But then there's also the hormones we produce inside, the stress hormones that are environmental triggers that cause a whole lot more inflammation.

So the environmental triggers are not just... We think of the environment like, the polar ice cap is melting or the trees are dying or the air is bad. We think of environment as ecology. The planet that we live on and that's important. But environment is anything from outside your body that has an influence inside your body. And what you're going to learn here, is that a critical approach that you have to embrace and it's not even an approach, it's a paradigm. It's a way of thinking. Is that the thing that you have a lot of control over that contributes to disease and brain disease for this talk today. What you have a lot of control over and you learn more and more is environmental triggers. So our goal is to have a body that's functioning with a low inflammatory status at baseline.

That's on the left side here. I don't know if you can see my cursor as I bring my cursor down the green arrow, is pointing to, that's our goal. Where we're living our lives in a lower inflammatory baseline. It'll take years to get here for some people, who cares. You'll look back in two years or three years and say, "Man, I'm glad I stuck with that." I have a coach that I've trained with for years when I lived in San Diego. Twice a week, I'd drive down there at 5:30 in the morning and we're exercising and he's a gymnast kind of coach, just a really great coach. And now I do it by remote twice a week. And we're working on exercises and I've been working with him for a number of years and I was trying to do a pushup today, is called a plank pushup. To where you're on your hands and your toes, back's really straight. And you bend your elbows and lean forward.

So, your nose is touching the ground out in front of your hands, not just going straight up and down. And it's really, really hard to do. And we were talking about that and he said, "Yeah..." And when you

see him move around, his body is beautiful. It's a perfect human specimen and he does all of these moves that are just jaw dropping. When you see them almost like Cirque Du Soleil in some ways. And he was telling me, "Yeah, Dr. Six years." I worked on that plank pushup for six years. And I was just startled and it just seems like such a simple thing to do, but keeping your elbows in and leaning forward for your nose to touch the ground is really, really hard, hard. On your shoulders and your elbows.

You have to build a lot of strength and it takes time to build the strength. I'm telling you that, because that was right in my world this morning and how impressed I was. And I told him, I said, "I'm so happy to hear that." And he started laughing and I said, "Thank you, because that just takes all of the anxiety out for me that I'm supposed to be doing this now correctly." Because I've been doing it now for a couple of months. Right? I've been working on it. And he just told me "Yeah, it took me six years." And when I talk about gluten I'd often talk about the Christmas cookies. It took me eight years to give up Christmas cookies. Because my mother always has made many different types of cookies, little, square, cheesecake with the red maraschino cherry junk sauce on top of them and just garbage.

I'm sorry, I shouldn't say that, but it's not healthy food, but it's what I grew up on. And it's comfort food. And I would live a squeaky clean life. I'm out there lecturing about gluten free. And then I go home at Christmas with my family and these cookies. It took me eight years. My point is, wherever your starting point is now for your inflammatory baseline, it's your starting point. Nothing you can do about that. But as you work on all these little things, you bring it down, bring it down, bring it down, bring it down, bring it down so that your inflammatory baseline is low. So when you're under stress, when your body is put under stress, when you're exposed to a virus out there in the world, your immune system is calm and strong and resilient and ready to go. Because you've got a low inflammatory baseline.

Your immune system is not producing a lot of inflammation right now. You've eliminated a lot of the environmental triggers for which your immune system has to fight. Which is where inflammation comes from. So you've got a low inflammatory baseline. You're now exposed to some guy who collapse and he's got the virus and you inhale the virus. You don't know that. But you don't know that it gets in your body and 95, 98% of people that exposed to this virus never have a symptom. But those that do, it can be kind of bad for some of them, right? Not kind of, it can be bad for some of them. But you want a low inflammatory baseline, so your army is there to protect you for any stress that comes into your life. But when you're at a high inflammatory baseline, just above the green arrow there. Where you see this red line is in the middle of the graph on the left side there. If that's your baseline, now you're exposed to a stress. And now your immune system which is already hyper active you're inflamed.

So by definition, your immune system's hyperactive, you have an anxious immune system. It's working overtime right now. But now you're exposed to something else that your immune system has to try to find the reserves to fight. And depending on what the exposure is and how high up your inflammatory baseline is, you may not make it. That's what the curve is trying to show. You see the top line there, it says, "Patients, fatality risk threshold." You cross that line, you're gone. Wherever that is, whether it's from heart or kidney or brain, it doesn't matter what it is. You cross that line, it's fatal. So a big picture goal is to lower your inflammatory baseline. And the way you lower your inflammatory baseline is by learning of all the environmental triggers that you're exposed to. That demand your immune system, because your immune system is just the armed forces in your body. It's there to protect you. And so what's it protecting you from?

So when it has to respond and protect you from something that's inflammation. That's how your immune system response. So you want to lower your exposure to all of those things in your life, whatever they are. The trigger and immune response, trying to protect you, right? Your immune system, doesn't go crazy, maybe hyperactive. It may be anxious but it's because you're sensitive to wheat and you're eating wheat every day. "Well, I get a little tummy ache, but it's not a big deal, I like my wheat, I

like my pizza. I like my dot, dot, dot." It doesn't matter what it is. So it's not knocking you down so you continue your exposure, so your inflammatory baseline is high. Now you get exposed to something that's stressful. And now your immune system trying to protect you has to respond but it can take you over the edge of the fatality risk threshold. That's a big picture concept that I wanted to start with.

And the goal is to lower that baseline so that when you have to respond to the stress of life, you are in a safe zone. And you have an immune system that's resilient and strong enough to respond appropriately. That's the goal. So how does chronic inflammatory disease develop? And some of you may know these slides that I'm about to show you, because I talked about these before. Professor Alessio Fasano, who is a Professor of Pediatrics at Harvard Med school. He's a Professor of Nutrition at Harvard school of public health. He's a Chief of Pediatric Gastroenterology at mass general at Harvard. He's the Director of the Mucosal Immunology center at Harvard, the Director of the Celiac Center at Harvard. Any one of those positions is a lifelong goal for people at the top of their field. He's got five. This is the guy and his team who has been writing and talking about leaky gut, since 1997. They published hundreds of articles going deep into the science of how all this occurs. So there's no argument anymore about this.

Anyone, any doctor who says, "Well, there's no such thing as leaky gut." And am thinking, "His head's in dark places." That it's just not possible to say that if you're at all current in the literature, there is no question about this stuff now. So Professor Fasano, is always careful about what he says because he can be misquoted so easily. Look at the title of this article he published last year. All Disease Begins In The Leaky Gut, all disease. And he says, "There's growing evidence that there are five factors in the development of chronic inflammatory diseases." Five different factors. This is another big kahuna concept to understand. And I really liked this picture because this guy is standing leaning against the wall, his left knee is bent and his foot's back on the wall. His hands in his pockets, just watching nature there. But he feels safe and secure in the midst of all that chaos. There's a perfect storm that's brewing. And Fasano, tells us that the perfect storm in the development of chronic inflammatory diseases, which means diabetes, Alzheimer's, kidney disease. Parkinson's, cardiovascular disease, rheumatoid arthritis, multiple sclerosis, psoriasis, alopecia, losing your hair.

It doesn't... Depression, anxiety, it doesn't matter. They're chronic inflammatory diseases, all of them. They're chronic inflammatory diseases. And Fasano, is telling us there are five pillars in the development of chronic inflammatory diseases. First, your genes, your genetics. Can't do anything about that, can't change that. But whether the gene expresses itself or not is what's important. Now over 70% of all the diseases, including Alzheimer's, including breast cancer. Over 70% of all these diseases, if you carry the gene for that disease, it does not mean you're getting that disease. It means that you're vulnerable to getting that disease. That's the weak link in your chain. And I've always said, you pull it, a chain of breaks at the weakest link. It's a one in the middle of the other end it's your heart, your brain, your liver, your kidneys, wherever your weak link is, you pull the chain too hard and that's where the chain's going to break.

Here comes diabetes. You pulled the chain too hard, that's where the link is going to break. Here comes Alzheimer's. So the goal is, don't pull on the chain so hard. And what is pulling on the chain? Inflammation is pulling on the chain. So you want to live an anti-inflammatory life to lower your threshold, your baseline of inflammation, so that you've got the reserves to deal with whatever comes your way. And your body has the strength to deal with it, that's the goal. So don't worry about the genes other than the genes tell you, "Well, this is the weak link, I need to check this. I need to make sure this link hasn't broken." Because you don't feel it when the link breaks. And your Alzheimer's gene is really active for 20 years. You don't feel anything, but it's killing off brain cells, killing off brain cells, killing off brain cells.

You just don't feel it. So you want to check and there's many good tests for these different inflammatory diseases that can tell you. Where are you on the scale right now on the spectrum in developing the chronic inflammatory disease, for which you are genetically vulnerable. Where are you on that scale? Because you want to nip it in the bud before you kill up so many cells that now you have symptoms. So that's the way a whole genes and genetics. Good information, but it doesn't change anything. You got this deck of cards, that's the weak link in your chain. Next, environmental triggers, which we're already talking about. Next, the environmental triggers alter your microbiome. You're going to learn about this a little more today. That's the environment inside your gut. And the microbiome... Here's a geek term, modulates how are your body functions. What does modulate mean?

It means has its hands on the steering wheel. So driving down the road, how your body functions is controlled, is modulating it by your microbiome. And if your microbiome is out of balance and your steering wheel turns just five degrees to the right, in a hundred yards, you're off the road. Now in it... So what does that mean? Your nerve hormones, your neurotransmitters go out of balance and you may get anxiety. If that's where your genetic vulnerability is. Or you may get depression or you may get knee pain or you may get skin problems. It just depends on your genes as to where it manifests. But the altered microbiome is critically, critically important. As you go through this series, you're going to dial it down to have a marvelous altered, diverse microbiome. That's the goal here. My son, unfortunately he was born by emergency C-section.

It was a very traumatic time for us and everybody's fine now. But when you're born by C-section the baby doesn't come down the birth canal. So the baby doesn't get all that good bacteria that baby's supposed to get. And so, I've been working... Poor boy he doesn't have a chance he's my son, right? so we took samples of Marzi's, vaginal wall the day before the due date. So we knew what the environment of the vaginal canal was in terms of what kind of bacteria is there. How much of the good bacteria, then when her water broke, I took samples of the water. And then when Gio was born, his first poop was on day three. I took samples of the first poop and I sent them all to a laboratory in Denmark, a top of the world laboratory. That's analyzing all of it.

And we're going to demonstrate that even C-section babies within one year of life can generate a healthy, diverse microbiome, like a natural childbirth baby. That's our goal here is to prove that. So I'm doing all these things with Jill, so that his microbiome, it keeps getting healthier and healthier and healthier. The microbiome is critically important. You're going to learn a lot about that here in this series. When you have an altered microbiome, you get intestinal permeability, the leaky gut. And when you get that leaky gut and we'll have a whole session on that. But when you get the leaky gut, large molecules, get through into the bloodstream before they're supposed to. Because it's leaking from the gut into the bloodstream. These large molecules called macromolecules, get in the bloodstream and the brain says, "Whoa, what's that? That's not supposed to be here, you general." And in your immune system, you have army air force, Marine Corps generals sitting around with nothing to do.

"General you take care of this." And now you make antibodies to chicken, if the macromolecule that went through was chicken. Or to wheat or to dairy or to beef, it doesn't matter what the food is. If it got through early your immune system, trying to protect you, it's going to fight that food. And it fights the food by creating inflammation to destroy that food molecule. So your inflammatory baseline is going up. So when you identify this and you reduce or eliminate those inflammatory foods, the immune system calms down and your baseline stats to come down. So you have a healthier baseline of inflammation. Inflammation is not bad for you, we need it. Or we wouldn't be here on the planet. Excessive inflammation is bad for you. That's why you have to identify for yourself and your family, where are the environmental triggers that are activating my immune system, trying to protect me?

Where is it? What are the things that I need to look at my life? So when these macromolecules go through and your immune system is trying to protect you, fires these bullets, these antibodies, it creates systemic inflammation. Immune response, systemic inflammation. And depending on your genetics, it's in your brain, it's in your knees, it's in your skin, it's in your heart, it's in your liver, it's in your kidneys. It just depends. But the mechanism is the same. That's what Fasano, was telling us. The mechanism is the same, so as you understand these five pillars with any health condition that comes up...

...these five pillars with any health condition that comes up and you think about this, "Okay. Okay. My son's got 104 fever. What do I want? What do I want to do? What do I want to do? Okay. I want the fever down now." Great. Yeah, you got to do that. But the question is, why does my son have 104 fever? And that's where you look for what are the triggers? Does he have a bacterial infection? Does he have a yeast infection? Where's it coming from? And then you start looking. There's a whole checklist that you go through on whatever the health condition is. If there's one concept that becomes the paradigm you look through for all chronic diseases, this is it. The five pillars in the development of all chronic inflammatory diseases. And the ones that we have control over, well, I guess this slide comes first.

And when we teach about auto-immune diseases, all of the autoimmune diseases, this is the mechanism that they're teaching in medical schools now. And why am I showing you this? Because it's what Fasano's talking about. It doesn't matter what the auto-immune disease is. This is the process by which they develop. And it takes years of this imbalance before you have symptoms of rheumatoid or Hashimoto's thyroid or lupus. It doesn't matter what the disease is. It doesn't matter. And these are the ones that we have control over. And you have to learn. That's what this whole 16 session series is, is learning about these environmental triggers and how do I build a diverse, healthy microbiome? And what do I do to get rid of this intestinal permeability? How do I do that? That's the basis of what we're talking about here. Now, Fasano told us in the same article that there are two most powerful triggers that cause the leaky gut. One is bad bacteria in your gut, it's called LPS. And two is gluten.

Those two are the big ones. The biggest ones, gluten is misinterpreted by the pathway for leaky gut, the zonulin pathway, as a potential harmful component of a bug. So we'll have a whole session on this, right now just accept this from one of the smartest minds in the world with five different director titles at Harvard, that gluten is misinterpreted by the zonulin pathway as a potential harmful component of a bug. Maureen Leonard, a very famous gastroenterologist also at Harvard did a literature review in 2017. She read... I think it was 64, it may have been 67 studies, I don't remember, on this topic of gluten in the gut and the summary that she wrote after reading all of these different studies, immediate and transient increase in gut permeability occurs in all individuals who ingest gluten. That's like, "What? In everyone?"

In everyone. Without exception. Without exception. If you're human, this means you. No, but even the mammals. Even the mammals it happens to them. So, if you're resistant to the science or just uncertain, if this relates to you about wheat, because it's the primary trigger... There are many other triggers in the environment, but this is the big kahuna that so many people start to get leaping results, getting better dramatically in a few months when they find out they have a problem with wheat and that they address that problem with wheat. So, if that's the case where you're just not sure do the Wheat Zoomer, it's called the Wheat Zoomer because you zoom in on the problem. It's the most accurate test in the world. And I know because I teach all over the world. It's the most accurate test to identify a sensitivity to wheat.

This is page one of the test results and I showed you because it also looks at the most comprehensive markers for leaky gut. So you have leaky gut right now. You see her on the sign, the dark blue intestinal permeability panel. This is page one of the Wheat Zoomer. This is page two of the Wheat Zoomer. And this is the only marker that most labs look at. Just one. And it's good, it's an important one, but they're

missing so many other things. That's why this test is so great. And this is page three of the Wheat Zoomer. And we'll put a link in here to the Wheat Zoomer so you can get more information and then order the test. You don't even have to go into your doctor's office for a blood draw. If you don't want to, you just do a finger prick. And it's very, very accurate. Mayo Clinic tells us it's the most accurate test out there.

Okay. Let's move on. And just I'm going to stay on this topic of wheat for just a couple of minutes here, because it's the primary food. There are others that are a problem. I mean, just go on Google and type in casein, C-A-S-E-I-N and sudden infant death syndrome, and you'll see the studies on milk, because casein is a protein in milk, how milk can for some people be a likely trigger for really severe problem, baby sudden infant death syndrome. So, I'm going to stay on this wheat thing for just a minute because it's the most common food. 57% of celiac patients have one or more, up to four psychiatric diagnosis like anxiety and depression and schizophrenia and bipolar disorder. 22% had a current or partially remitted depression. 18% were suffering from anxiety. And when you get wheat out of the diets of these people, they do so much better. Many of them go into remission completely. But others, they do better because there's other environmental triggers that you also have to address. But that's how common it is.

Now, there's a term called social phobia that is really important because people are being told to socially distance right now for over a year, and that's just utter nonsense. It may be of value to physically distance. That may be of value, but never social distance. Never. Because it creates anxiety. It creates fear. And eventual depression comes out of that. Of child abuses, of spousal abuses, of suicides are up because people are being told to socially isolate. Do not socially isolate. Do not. Physically isolate, perhaps that's a good idea. Perhaps. But social phobias are very common when you have a sensitivity to wheat, that's why I put that in there. Unfortunately, gluten resembles some brain relevant substances. Antibodies against gluten removed from human blood attack areas in your brain and the saran wrap around your nerves. When that gets attacked, it's called multiple sclerosis, MS.

Now, I love this article because they... Also, Dr. Breslin put in a little bit of humor. If you can look all the way down on the bottom, do you see what it says there? It's a quote from Matthew 6:11. "Give us this day our daily bread, but deliver us from evil." Right? So, then they talk about... Look at the title of the article, Bread and Other Edible Agents of Mental Disease. That's why I'm so strong to talk about this. Is that everyone here needs to just check and see, "Do I have a problem with wheat that's not making me sick every time I eat it, so I can't tell." But if you have some brain dysfunction, if you have some anxiety, it's at the top of the list. Once you are a little stable, that's really at the top, so [inaudible 00:37:25] can function in the world, maybe need some medication for a short period of time, maybe. But let's see if we can reduce the need for the medication.

We published a study back in 2004. We looked at 50 children with autism and 50 healthy controls and we did antibody tests looking for that protein in wheat, that most labs that's the only one they check for, it's called alpha gliadin. And then we looked at cerebellum, an area of the brain. And everyone who is sensitive to wheat, 22% of those people sensitive to wheat also had antibodies to their cerebellum. And when they went wheat free, the antibodies of cerebellum go down. 22% of everyone. We conclude that a subgroup of patients with autism produce antibodies against the area of the brain and to wheat, which may be responsible for some of the neurological symptoms. Now, I'm showing you this next one because it's so important for again, anxiety. We put this drawing in our article, that there's an antibody that gets produced called G-A-D. And it's a geek term, glutamic acid decarboxylase.

But when you have a sensitivity to wheat, 22% of the people have antibodies to glutamic acid decarboxylase in their cerebellum. Well, what does that mean? It means you don't make enough GABA. What's GABA? GABA is the most important brain hormone called neurotransmitter. The most important brain hormone for you to be calm. But you don't make enough GABA when you have antibodies to

wheat that are triggering antibodies to GAD. So, when you get wheat out of your diet, the GAD antibodies come down, you make more GABA, you start to calm down. That is one of the mechanisms by which anxiety is addressed on a gluten-free diet. These antibodies attack an enzyme involved in the production of GABA. And this is that same article from Dr. Breslin. I just put it in there as a little bit more reinforcement. Our prime inhibitory neurotransmitter, who when it's not working very well will produce both anxiety and depression.

So I'm going to show you a case study here. Here's a 14 year old girl... Now, this clinic. In Italy, there are 36 clinics designated by the government as Gluten Related Disorder Centers. And if a doctor, a family doctor, a pediatrician, whoever... a neurologist, they suspect their patient has a problem with wheat, they send them to one of these centers. Because if they get diagnosed with a problem with wheat from one of these centers, their gluten-free foods are a tax deduction. Italy's got this down pretty well. So, this patient was sent to one of these centers. A 14 year old girl comes into our clinic for psychotic symptoms. In May 2012, after she had a fever, she became irritable, had daily headaches, concentration difficulties, within a month her symptoms got worse. Severe headaches, sleep problems, behavior alterations, several unmotivated crying spells, and apathy. She just didn't care. School performance deteriorated, she developed bad breath for the first time. Now there's a clue that everybody missed. "What's wrong with the gut?"

The patient was referred to a local neuropsychiatric outpatient clinic where they diagnosed her with a conversion somatic disorder. And here's the medication to take. Parents don't know that language. "Okay. Okay. Whatever. We just want our daughter to be well." So she starts these very powerful medications called benzodiazepines. Within a few months during the final school exams, she gets worse. She begins having hallucinations. She sees people jumping out of a television following her, trying to scare her. She has about 5% weight loss and she has GI symptoms like abdominal bloating and severe constipation, but they don't send her to a gastroenterologist. They send her to a psychiatrist who puts her in a psychiatric ward. All the tests were negative. They didn't find anything at all wrong with her. In September, shortly after eating some pasta, she had crying spells confusion, couldn't walk straight, severe anxiety, paranoid, delirium. Again, they send her back to the psychiatric unit. She's admitted. This is a 14 year old girl now in the psych unit of a hospital. And they do all these strong medications for her.

But during the following months, she's had to get several hospitalizations with the recurrence of her psychotic symptoms. More tests, MRIs, spinal cord taps, they can't find anything wrong. Her EEG's a little slow, but nothing else is wrong. Celiac was negative. She tested negative for celiac. In September of the next year, so this been going on for a year and a half now, severe abdominal pain, hard to speak, depression, distorted, paranoid thinking, thinking about suicide. The clinical suspicion was a fluctuating psychotic disorder and they gave her even stronger medications, but her psychotic symptoms persisted. In November, she had more GI symptoms and she had 15% of weight loss. Her entire body. She lost 15% of her weight. So a nutritionist said, "I know you don't have celiac disease, but why don't we just try a gluten-free diet? Let's just try it." Within a week, her symptoms dramatically improved. Within a week. And they continue the gluten-free diet for four months.

Now, the doctors say, "Until a few years ago, the spectrum of gluten related disorders was only celiac and wheat allergies. So, our patient, because she was negative for celiac, our patient would be turned back home as a psychotic patient and have lifelong treatment with anti-psychotic drugs." What kind of a life would this have been for that 15 year old girl now? But, and they're saying, "Now, we know there's this thing called non-celiac gluten sensitivity." Due to parental choice, the little girl didn't eat gluten again. Her mother finally recalled that she was returned to normal girl. Nine months after starting the gluten-free diet, she was completely symptom-free. So, I'm going to skip the rest of that because that's just an example of how it affects your brain. And that was a severe case, 14 year old girl and traditional medical care. No idea. Why do I show you this?

I'm told this is not photoshopped. That there are people in the world that do this. How many years did he train in order to be able to do this? Like my coach, six years it took him to be able to do a plank pushup into a headstand. Six years. How many years is it going to take to really dial down what the environmental triggers are for you? I don't know. Usually takes a year to two years and you'll always find some new things, but they're usually some version of what you've already learned about, but it's going to take a while to learn this stuff. Next topic. Studies conducted on germ-free animals have demonstrated that the microbiota, the bacteria in your gut, influences stress reactivity and anxiety-like behavior. Okay?

So, there are many, many studies that did that with animals. And so this study told us that the interface between neuro psychiatry and gastroenterology has merged into a new discipline called enteric neuroscience. I'm sorry for the geek words. But what it means is how the bacteria in your gut affects your brain. So, this was 12 years ago, this paper came out and said, "This is brand new." So if your doctor has been out 15, 20 years, they probably haven't been exposed to this enteric neuroscience. They don't know. They may have heard something at a conference maybe, but they certainly haven't dialed it down. Most of them just really don't understand this, that the bacteria in your gut have a direct effect on the function of your brain. Even minute doses of microbes within the GI tract, levels that do not trigger an immune response.

So, the system that's there to protect you says, "No problem here." But, minute levels are capable of influencing your nerve communication in different areas of the brain. And all three of the areas that they identified are involved in anxiety and mood. I'm showing you this because as we're talking about anxiety, what do you do to address the anxiety? You always include heal the gut. Always. Without exception. There may be some medications you need for a short period of time, whether they're natural treatment approaches, or pharmaceutical, but you must treat the gut or the thing comes back.

And here I show you the three different pathways by which... So I just need the control for the air conditioning. It's a little cold now... By which the gut affects your brain. And you'll learn about this. In the future we'll talk more about this, about the vagus nerve, and how this is the primary mechanism they've identified with Parkinson's, is that bad proteins in the gut go through the wall of the intestine. They go into the vagus nerve and they creep up the vagus nerve like an itsy bitsy spider went up the water spout, right? Remember that? That these proteins called... Oh, come on. Come on. Not amyloid, I'll come back to it. But they creep up the vagus nerve to the spine. They go up the vagus nerve in the spine, up to the brain and they settle in the area of the brain causing the inflammation that triggers Parkinson's.

It takes 20, 30 years for this to occur, but they've identified this vagal pathway, almost like a highway. That's why there's a lot of vagal exercises you're going to learn. Next, hormones that are produced and metabolites of the microbiome and immune system response to what gets in your gut, gets into your bloodstream. And when it gets into your bloodstream, it goes right up to your brain. Next, some of the exhaust of these bacteria in your gut, your immune system fights these things, and then you have the immune system where Fasano talks about the five pillars, and when some of these bacteria... Remember he said, "The two most powerful triggers are bacteria and gluten." When the bacteria get through the leaky gut into the bloodstream, your immune system has to fight those things that goes right up. It can go up to the brain and cause more inflammation.

So you're going to learn all of these different pathways. And in this medical textbook that came out a few years ago, I think it was 2014, I think so. I think it was. This article tells us that 36% of all the molecules in the bloodstream are the exhaust of the bacteria in your gut. Over a third of everything in your bloodstream is exhausted the bacteria in the gut, which is going up in your bloodstream and it goes up to your brain and it's scary. It's the messengers modulating how your brain functions, how your heart

functions. That's why 36% of everything in your bloodstream are these messengers from the gut. That's why the gut's so important. We'll have a whole session on the gut and rebuilding the gut.

This is Dr. Michael Gershwin from Princeton. And he wrote the book in 1999, The Second Brain. And he told us back then. He said, "For every one message from the brain going down to the gut, telling what the gut what to do, there are nine messages from the gut, going up to the brain, telling the brain what to do." That's why he calls the gut, the second brain. And this gut-brain axis. Lots of doctors talk about this gut-brain axis now. It's a very common discussion of, "Where is this brain function problem coming from?" And this slide, I put it in here so that you can understand that you have time right now? So this comes from health and human services, and this is the development of Alzheimer's. And first, you have a normal level of antibodies to your brain because you got to get rid of old and damaged cells to make room for new cells.

So you have normal level of antibodies to brain, but then you're exposed to so many environmental triggers causing inflammation in your body. The result of the inflammation is that you lose tolerance. You lose tolerance to gluten, to environmental chemicals, and you start creating inflammation in your brain and you make more antibodies to your brain. As a result of that. When that happens... Now, notice that goes on for 20 years. The word prodromal means before. Before. It comes before. So before you have symptoms, you've got 20 years of killing off brain cells, killing off brain cells, killing off brain cells, killing off brain cells. Then you finally get to mild cognitive impairment. "Where are my keys? Where did I park the car in the parking lot? What row is that? Oh, I don't remember. What row was that?"

And you start losing your sense of smell. That's why we have the smell test. Is such a beautiful test, everyone should do this test. We'll put a link in there for you to this test. Because what you do is you scratch it and then you answer the question is the smell, tomato, menthol, strawberry, or licorice. And you write the answer right here. Then you turn the page and you scratch it. And is it cherry, honey, lime, or whiskey? You answer it here. Then you turn the page and you do all 12 of them. And then here are the answers. And if you score nine or less correct, you've got hyposmia. It's a loss of your sense of smell. If you score 10 or more, I'm sorry, 10 or more correct, yeah, you're fine. But nine or less correct, you got a hyposmia. And there are 17 studies that say hyposmia is an early biomarker of preclinical Alzheimer's.

So you do this simple test to see, "Am I safe? Am I okay right now? Or do I really have to put a lot of attention on this, so I stop this thing that's going on," because now you've got seven years of mild cognitive impairment that progresses into mild Alzheimer's, and then moderate Alzheimer's, and then severe Alzheimer's. And there's nothing that can be done at that point. So, environmental triggers. The first one we've talked about was gluten already that can affect your brain. The second one is bacteria, as Fasano said, "Bacteria and gluten are the two most common triggers creating intestinal permeability, the leaky gut."

And, thought I throw this one in here. You ever wake up in the morning and look at yourself in the mirror and think, "Well, that can't be right. I can't be right." All right. Let's just move on. While considering potential sources of compounds that may contribute to the development of brain dysfunction and neurodegenerative diseases, diet has often been considered as a primary vehicle of exposure. Very true. Very true. Number one to look at as the most common source of environmental trigger is, "What's on the end of your fork?" Right? We know that. Many known neurotoxicants and developmental neurotoxicants are food contaminants. Yet the air we breathe is a logical potential source of chemicals which may exert neurotoxicity. Though attention's been limited for several decades only to the effects on your breathing, your respiratory system, and more recently on the cardiovascular system, there wasn't that many studies, until recently that talk about what you breathe and how it affects your brain.

Elevated air pollution is associated with decrease brain function, cognitive function in children, adults, and the elderly, meaning everybody, when you've got elevated air pollution. My friend, Dr. Dale Bredesen wrote this wonderful book that explains in detail, "How do you arrest the development of Alzheimer's?" which is the message that we're giving you now, right? When he tells us that in clinical practice, 60 to 65% of all cognitive decline Alzheimer's patients are identified as inhalation Alzheimer's patients. There's five different types of Alzheimer's. The most common type is inhalation Alzheimer's, which means what you're breathing is the environmental trigger causing the inflammation in your brain that's killing off brain cells, killing off brain cells, killing off brain cells. And it's giving you anxiety or depression or schizophrenia or Parkinson's or eventually Alzheimer's. But it's what you're breathing. Two studies found that residential proximity to freeways and gestational and early life exposure to traffic-related air pollution was associated with autism.

How associated? 86% increase risk of developing autism. If you live near a freeway or traffic-related air pollution. 86% that your kid, your baby, your granddaughter will develop autism. 86%. It affects all of us all of the time. According to Environmental Protection Agency, the top five air quality problems in the US are all indoor air problems. Common residential indoor pollutants include excessive moisture causing mold, volatile organic compounds, combustion products, radon, pesticides, dust particles, viruses, and bacteria. Indoor air pollution is worse than outdoor air pollution in most places. The World Health Organization says, "Radon causes up to 14% of lung cancer deaths worldwide. About 21,000 lung cancer deaths in the US per year are due to radon. Of those, 2,900 occur in people who never smoked." Never smoked. Everybody should check their house for radon, it's a simple... like a smoke detector, you put it in your basement or in your house and you just leave it, sit there for 30 day...

You put it in your basement or in your house and you just leave it, sit there for 30 days and you send it in and they'll tell you if you've got radon or not, that you're breathing, your family's breathing. Be exposed to radon for a long period of time can lead to lung cancer. Radon gas in the air breaks down into tiny radioactive elements that lodge in the lining of the lungs, where they can give off radiation. This radiation can damage, lung cells, eventually lead to lung cancer. I put this in here because it's so critically important that you understand you have anxiety. What are you breathing, is on the checklist of environmental triggers that you have to look at. All the different environmental triggers inside a house in the dust. You ever see the sun shining through the window? You see the rays of the sun?

Certain time of day. You can see the dust in the air? That's what you're breathing. That's the flame retardant chemicals from the blankets on your bed. That's the stain resistant Scotchgarde on your sofas and the seats of your chairs at the kitchen table. They outcast tiny little amounts into the air that you're breathing and you can't smell it. You can't taste it. You can't see it. Sometimes you can see the dust, but it's causing input. It's environmental triggers causing inflammation, inflammation, inflammation, inflammation for years, and it creates attention deficit, hyperactivity disorder, autism, anxiety, depression that your indoor air pollution is critically important to address when you're trying to enhance your brain function. The indoor environment is a haven for chemicals associated with reproductive developmental toxicity, hormone disruption, cancer, other health effects. The existing dust literature is a lot of to identify the chemicals and chemical classes found at the highest levels indoors with the highest estimated intakes and associated with the most hazardous traits.

And these things are just nasty, and you know, my daughter moved into a new house in the last year with my two grandchildren. I was so happy because they were on the street of a four lane road, just constant traffic all day, every day, constant. I had big concerns for my grandchildren and what's the air they're breathing there, but they moved to a quiet neighborhoods, a beautiful area. And when she did a cause I can't go to visit them when they moved into the house where I help them move because of this travel restriction. So she just walked through the house with her phone showing me it was a beautiful,

beautiful house, but I saw all the been completely redone in the last couple of years. And I saw the plastic here and I saw the building materials here that I know what they're out gassing.

I just went, oh, oh. So what did I do? I said, honey, beautiful. My house gift to you. I'm going to send you an air filtration system for the house. Oh, thanks Dad. Okay. I sent them three because they have three levels to their house. One in the hall upstairs where the bedrooms are, one on the ground floor, kitchen, dining room, living room, and one in the remodeled basement for where the kids play. And cause they've got drywall down there and carpeting and all that. So I sent them three because this, these chemicals are notorious. And there's so many studies on this now and you can't smell this stuff or see it. And these were just some of the chemicals from environmental science and technology journal and how they affect your reproductive system, your hormones, your ability, your development. Children don't develop when they're exposed to a lot of these chemicals, your immune system, your liver, your digestive system, your lungs and your brain and your nervous system.

These chemicals are notorious and never before or in the history of humanity if we've been exposed to all these chemicals, so you have to deal with this. So we're going to put a handout in here for you to download. NASA published a study that showed two, six inch houseplants in a 10 by 10 room absorbs over 60 to 70% of the toxins in the air. Two little houseplants, the size of that picture. That's all you need. And they absorb a lot of the toxins in the air. And for those of you say, well, I don't have a green thumb, they'll die. Buy more, keep the air clean for you and your family. And we'll give you the link for the handout here so you can get these houseplants. So formaldehyde that's in all the cabinets. If it's not solid wood, if it's press for your kitchen cabinets, your bathroom cabinets.

If they're press board, they're loaded with formaldehyde and there are the plants Draceana, Janet Craig, Mother-in-Law's Tongue, Draceana Marginata, Peace Lily, Green Spider Plant, Golden Pothos. They're easy to get these plants and the handout has many more. I just want to show you what the handouts got in it. And this is the best air filtration system I've found. There was a good study done by a consumer organization of the top 10 air filtration systems out there. And this one is number one. That's why we recommend it. It's the air doctor. I sent my daughter three air doctors for each floor of her house, right? So we'll put the link in here for you to learn more about air filtration systems and how they work because you have to deal with the environmental triggers.

For those of you that are healthcare practitioners. This is the kind of information that I give in my course, the certified gluten practitioner course. It's an eight hour course and then you're certified after, after you've passed the test, you're certified. So that's my presentation. I know it took a while, but I'm hoping it gives you a lot of food for thought. And I'm going to stop sharing my screen now and go to your questions. So we'll start there. Where are my glasses? Here we go.

And let's see. Let's see. Let's see. Where is the link? Let me find me the linked to the question. There we go. I got it now. Okay. How trauma and fear of infection can affect brain functions and structure? Oh, and, and really good question. Trauma, head trauma. Headbutts on a soccer field is head trauma. Football's head trauma. It's, it's shocking to see 99% of NFL football players. When they check them, they've got CTE, which is a type of dementia. They've got evidence on MRIs, 99%. College football players, it was in the 60%. High school football players, 20 some percent of them when they check them later in life, they've got CTE. So a head traumas last a long, long time. If you don't identify them early and treat them reducing the inflammation, trauma will create a breach of the blood-brain barrier, leaky brain. You've got, if you've got leaky gut, you likely have leaky brain and trauma almost always will create a leaky brain.

The treatment protocols for a leaky brain. Well, first you have to do a test called the Neural Zoomer Plus to see how much, how many markers of inflammation you've got so we can follow your progress. And then we'll the recommendations to treat leaky gut are included in treating leaky brain. And then there

are other specifics for brain, depending on what the test results show us. Dr. Tom, I never had anxiety before COVID but now I can't seem to undo it. It doesn't feel emotional. It feels physical. What would you suggest in lifestyle to try and combat some of this? Oh, really good question. That's a very intelligent question. Way to go. First thing, stop watching television at night and absolutely do not watch the news. Absolutely not. There is no benefit in watching this manipulated a messaging system that we're all exposed to now. You know, some of you may have heard that last weekend was no two weekends ago.

There was a big March in London and depending on the estimate, minimum 500,000 to a million people were marching, and you see the videos and there's just thousands and thousands and thousands of people marching with signs and they're talking about this forest vaccination thing. Not one news outlet in England had a story about it. Not in the newspapers, not on the television, not on the radio, not one. That's not right. You know, that's not right. That's news. So I don't watch the news. There is nothing of value in watching the news. Don't watch television two hours before you go to bed. Try a bubble bath with some candles in the room, as opposed to the bright light of your bathroom. Try sitting and having some quiet time. Maybe you like to read, maybe you're religious and you'd like to just have some calm prayers. You know, you pray for calmness or you meditate, or you might do a little relaxing yoga, but do something different.

There are so many different things you could do, but do something different and do it for all a week, two weeks, and then just see how you feel. You know? So give yourself an hour at night, I'm going to take a bath every night for the next week. Maybe it'll be a bubble bath. Maybe not, certainly put Epsom salts in. So that Epsom salts are magnesium. They relax your muscles. People sleep much better when you do that. So those little things might be able to help. And I believe you, that is physical. There's a, there's an apprehension you're scared, you know, and not so not, maybe not as much emotional as physical. So Epsom salt baths can certainly help that.

Can you discuss in tonight's seminar how or if fasting alone or with carbohydrate control or carnivore diet can be used to reduce anxiety without causing hypoglycemia or negative effects? It depends. It depends on what your baseline is. Like. We talk about baseline inflammation. What's your baseline for insulin resistance? To do your baseline for insulin resistance, you do your homeless score. H O M A. You just get a fasting glucose and a fasting insulin, really easy blood test to do, really easy blood test to do. And I'm checking now to see if I have it in my phone cause I got a new phone now. Let's see, it's supposed to have transferred everything over. Let me see if it transferred over. Yep. It did good. So the formula is fasting insulin times fasting blood sugar divided by 405 and the normal should be less than 1.9. If you're between 1.9 and 2.9, you've got insulin resistance and your blood sugar is not one that you want to stress right now. If it's over 2.9, you're about to be, or you already are a diabetic.

And so you absolutely do not do things just like fasting, which throws your blood sugar even more out of balance. So those are the, the main controls I'd be concerned about. If you're considering fasting, triggering hypoglycemia or other negative effects. And if now I personally think that time restricted eating, is an excellent thing to do. My wife and I do it. Most every morning, we wake up in the morning and we have our morning coffee and we don't eat, with geo we wake up at four or five. If it's five, it's really sleeping in and we don't have breakfast till about 11. And we have dinner somewhere around six, usually. So, we're trying to the most common time restricted eating is an eight 16. Meaning you try to eat all your food within eight hours. So if you have breakfast at 10, you want to have dinner at six, you know, something like that.

And I think it's a great, great protocol. There are so many health benefits to doing that. Are neurological conditions inflammatory too? Absolutely by definition, all chronic diseases are chronic inflammatory diseases. All of them. There's one that's not in the brain. It's a salt deficiency and the brain can shrink because of a salt deficiency. And there doesn't seem to be any inflammation on that one, but all the

others are very different. They're all inflammatory. My sister has depression and anxiety. My dad had Alzheimer's, mom dementia. Are these all inflammatory conditions, whether in the brain or thigh? Absolutely. Yes they are. So, you're one of the people that it would be very wise of you to do the Wheat Zoomer and the Neural Zoomer Plus. Not the Neural Zoomer, the Neural Zoomer Plus cause the Neural Zoomer, it looks at eight markers of brain inflammation. The Neural Zoomer Plus looks at 48 markers of brain inflammation.

And I'd suggest you work with my team. Michelle Ross is our director of Clinical Services and she talks to people every day about these tests. Doctors don't know, understand these tests. It'll take them six months to really dial them down and understand them. Michelle has been doing this now for a couple of years. Can you talk about plastic? Avoid it, whenever you can. Never let plastic touch your food. Never store food in plastic containers because the phthalates, phthalates are chemicals use to mold plastic. The phthalates in the food. I'm sorry. The phthalates and the plastic container are in the food within, oh, I don't know the timeframe, maybe 10 hours, 12 hours. You put chicken in a plastic container in the refrigerator overnight. The leftover chicken, the next day it's got phthalates in it. And these things are very neurotoxic. Phthalates are extremely neurotoxic chemicals.

I'll tell you in Chicago, 346 pregnant women in the eighth month of pregnancy, they collected the urine and they tested them for five phthalates. There are hundreds of phthalates. So they tested five and they categorize the results into the lowest, the women with the lowest amount, the next, the third and the highest amount. They followed the children of those pregnancies for seven years. When the child turns seven years old, that's when they did Wechsler IQ tests on them, the official IQ test. Every child, whose mother was in the highest category of phthalates of urine in pregnancy, compared to the children whose mothers were in the lowest core tile of phthalates and urine in pregnancy, every child in the highest core tile, their IQ was seven points lower than the kids in the lowest core tile. Seven points. That doesn't mean anything to anyone, until you understand a one point difference is noticeable.

A seven-point difference is a difference between a child working really hard, getting straight A's and a child working really hard, getting straight C's. This child doesn't have a chance in hell of developing to his full genetic potential because phthalates in pregnancy inhibited brain growth. Just go to Google and type in phthalates. P H T H A L A T E S and Neural Genesis. Nerve growth. Here come the studies. Phthalates inhibit nerve growth. Baby's brain never developed completely because mom was high in phthalates from 25, 30 years of putting nail polish on, putting plastic over the food in the microwave, putting leftover food in the plastic containers, drinking out of plastic, water bottles. These tiny amounts that accumulate in the body over decades are a problem for all of us. That's why Alzheimer's is going up. That's one of the contributors to that in younger generations.

Can you talk about the impact of EMF on anxiety? Yeah. EMFs will treat would they alter the production of your nerve hormones called neurotransmitters. And once they're altered, you're off to the races, depression, anxiety, schizophrenia, because your nerve hormones control the synchro, the synchronicity of your thinking. How it's all balanced together. That's, that's modulated by your neuro-transmitters, which are modulated by the bacteria in your gut, right? But EMFs throw a curve ball in there directly to the brain. Some of you, you're talking on your phone for a while and you notice, oh my ears getting hot. So you put it on the other side. Well that's because the radiation is going into your brain, right? And it's getting hot and uncomfortable so you moved to the other side. Never ever put a cell phone up to your head. Always use a headset, a corded headset, not a Bluetooth because you're putting the battery into your ear, right? You use a corded headset always or speak on the speaker of the phone. Always.

Hello, Tom, if an MRT test on 10, 10, 18 showed, I should avoid gluten, soy, beans, mushrooms, garlic, eggplant, raspberries, and more, does that mean I'm still sensitive these foods now? I don't know. You have to redo the test to see if it still says you are. That's the only way, you know, well, I've been gluten

free, dairy free soybean, mushroom, garlic. Well, that doesn't mean anything. They did a study at Columbia university. They send 804 people with testing equipment out into the community. And they went to gluten-free restaurants. They ordered off of gluten-free menus. When the waiter or waitress took the order and walked away, they opened up their briefcase and put the testing equipment on the table. When the waiter or waitress came back, they took the food, he immediately put it in the testing equipment. 34% of everything on a gluten free menu is not gluten free.

51% of gluten-free pizza is not gluten free. 54% of gluten-free pasta is not gluten free. That's why you need to take digestive enzymes that really work. And we'll, we'll put the links here to eat three advanced plus. And we rescue those are the enzymes that really work the Norwegian government and, and the Danish Genomic Institute did a study of the top five, gluten enzymes. All five of them fail to stop the inflammation in the gut. They work in the large intestine to stop colitis from gluten, but they don't work in the small intestine because they take three to six hours to work and you have to have these enzymes work within 60 minutes before the food comes out of the intestines. Remember, Paisano said that gluten is misinterpreted by the immune system in the gut as a harmful component of a bug. And that's right there, when food comes out of the stomach, that the immune system says we got a problem here. So you have to digest and break down that food before it comes out of the stomach. That's what The Three Advanced Plus and We Rescue do.

Let's see, I had greater reactions to foods back then. My goal is to adopt a healthy vegan diet with the sensitivities listed above. I finding it challenging to make, switch to a plant-based diet. I can understand some of the sickest people I see are vegans. They just don't know how to do it right. That is a lot of work to do it properly. You certainly can do it, but you really want some guidance on how to do it. You really want some guidance. And so find a health coach, a nutritionist, or a registered dietician. My team is really good at this so that you get the right guidance to do on how to do this.

Can you explain what a new Tropic is? And do we need one? Generally speaking, it's a brain enhancing nutrient helps your brain function. What, which function? There are so many new in Tropics and so many different brain functions, it depends. Brainbean.com. Their products are superb, just superb. And we're going to be having access to them. Well I'm just talking to the owner of the company now about that. But you go to Brainbean.com and look at their products. So yeah, I take a number of new tropics. I've been told that the essential oils cross the blood-brain barrier, is that accurate and could an essential oil inhaled calm the nervous system? Yes and yes. Not all the essential oils cross the blood brain barrier, but some of them do. And yes, you can calm the nervous system by putting essential oils into a Mister, a diffuser in the air. Marci has two here in the house that are going most of the time.

Can you explain how again, how heavy metals, bacteria, nickel, and tattoo ink create anxiety and auto immunity? They're poison. Inks are poison full of heavy metals and, and phthalates and organic pollutants and the inks. They don't go away. They just keep leaching a little bit of time at a time into your bloodstream. And depending on where you are at your baseline of the inflammatory index, the first slide that I show you, where you are in that baseline inks can cause major problems. I've told the story before about a woman who died from her tattoos. No one could figure out what was wrong, but it was the inks. And she had flesh-eating bacteria in flesh-eating infection without bacteria. They couldn't find bacteria, but the immune system was attacking and destroying her flesh just because it was full of ink.

Can you explain how wheat and self-care products leads to anxiety, even if someone is gluten free? Well, if you're exposed to wheat, it gets into your bloodstream. Your immune system, trying to protect you is, is always going to protect you from wheat. Once you've crossed the line of tolerance, once you come back positive to have a problem with wheat, it's permanent, it's lifelong. The other foods, nobody knows, but there's something called memory B cells. And there are a number of studies on memory B cells from gluten, so that you, you get exposed to gluten or to wheat in the form of your shampoo while

you inhale that it, we don't think it goes to the scalp, but you inhale it. And that is that pathway is a mechanism of Baker's asthma. It's the same pathway. So if you're a highly sensitive, if your inflammatory baseline is high, it doesn't take much to take you over the edge and you get symptoms.

Do you have a different protocol for children? Well, that's kind of a difficult question to answer. Which protocol are you referring to? Sure. Dosing of nutrients, but eliminating toxins? No, no. You've always got to get the toxins out of there, but most all of our nutrients should be dosed by weight. We do that with our pharmaceuticals, we should do it with our nutrients and so with children, you have to adjust properly. At what point does the signal change from electrical to biochemical, for transport to the brain? I think you're talking about EMFs and EMFs, the, the damage that they, the response mechanism in the body is a biochemical mechanism inside yourself. That one cell, one brain cell communicates with the next brain cell by some chemical messengers going through the membrane of the brain so through the membrane of the next brain cell into the brain.

So the membranes like the wall and a Lazy Susan's, you know, when you go to a doctor's office, it used to be you would urinate into a cup in the bathroom. You put it on this thing in the wall. And this thing rotates around to the open side is in the other room now. And the nurse takes it. And does the test sign so lazy, Susan. Your brain cells communicate by Lazy Susan's. And so the brain cells are making chemicals and then there's a chart of the chemicals create a charge. And that goes through the membranes to the next membrane, into the next cell, which modifies the chemical and modifies the charge.

Now you can, you can change somebody's IQ, children's IQ. They've shown this in the journal, the American Medical association, by giving them fish oils. If they never had good fats, when their brains were developing, the walls of their brain cells have rusty Lazy Susan's. They're rusty. They don't turn very easily because it's the wrong kind of fats. Your, your, the walls of your brain cells, the membranes are made of fat. And so you want really good fats. Marzi her coffee, I make her every morning is with a big teaspoon of ghee, two pumps of medium chain triglyceride oil from a brain beam, and then two egg yolks, she's getting and I blend all together with some collagen from brain meat. And the result is she's got this luscious, rich, almost like a, a latte coffee that is so full of good fats. That's why our boy is so alert. One reason why, cause the breast milk is so full of great nutrients. And that's what you want to do in your own body is to put as many great nutrients in there as you can.

Are there any underlying medical problems that could be causing my anxiety symptoms and what are my treatment options for anxiety? I know this is very broad, but just some starting ideas would really help. That's a really good question. Thanks for asking it that way. Yeah. Yeah. The underlying medical problem is the five pillars and the development of chronic inflammatory diseases. And I know it's hard to wrap around, well, what do I take for anxiety? When you're looking from here, you recognize that the question, what do I take for anxiety, is premature. You have to identify what are the environmental triggers, because if you've got a gluten sensitivity, you can take any meds you want, like the 14 year old girl that my case study. That's why I put that case. She wasn't a celiac, but that's why I put that case study in there because that was causing hallucinations, fluctuating, somatic disorders. They had her on powerful medications, admitted to the psych ward of the hospital multiple times over two years because she had a gluten sensitivity, right? So you have to identify the environmental triggers that are causing.

Identify the environmental triggers that are causing the anxiety you don't look for. Well, do I have diabetes or do I have a tumor? Of course, you have to consider those things depending on what your symptoms are, but the way you look at this is what are the environmental triggers that are causing this for me. Let's see. I'm very interested in neuroprotective foods, any further information on the value of Medjool, or other dates in this regard and what type of ginseng is most helpful? Dates are really a great

food. Yeah, they have a number of nutrients that are brain supportive having a day to day, a date a day is a good idea. Ginseng depending on where you are in brain function determines whether you want a stimulatory type of ginseng like the red ginsengs, Korean ginseng that kind, or whether you want a calming type of ginseng, the people in the orient, they consider the highest quality ginseng in the world comes from Wisconsin American ginseng because it's balanced between the two.

And so usually American ginseng is a more calming type of ginseng for you. What product on Amazon of vinegar to clean the shower head. I don't know. Well, I have to ask Michelle. MA, while we're here. See if you can get that. I think we might even have a handout on it. You can't get the 3% or 4% stuff from the supermarket. You need 8% or higher. I think it is what Michelle put a handout together. That's got the list. To get the plastics out of the brain.

What is your opinion on using glycine and put it in the toilet, pee it out, taking any single amino acid over a long period of time can throw your system out of balance. I'm unfamiliar with the magnetic pole of glycine to pull out plastic I'm unfamiliar with that. That may be the case. I just don't know, but taking any amino acid by itself, for a long term is usually not recommended, short term many different amino acids or taking an amino acid blend that may be higher in glycine that might be a good idea, but certainly when you want a detox, we'll have sessions on detox. We'll go through all of that in the detox section.

Best on beat. So I think he meant best, best supplements for head inflammation, curcumin CBD, essential oils. Really good question. Yeah, those are great. Curcumin is the master anti-inflammatory nutrient. I can't imagine ever not using curcumin. It's just such a great product and hundreds and hundreds of studies of its anti-inflammatory benefits. CBDs can be really great. They can be very helpful for you for head inflammation, but where's the inflammation coming from. That's the million dollar question, where's it coming from? Is it foods? So if you have a fire and you take some CBD, so it's a garden hose to put the fire out. But over here, you're eating gluten two, three times a day.

You've got a big white fire hose instead of a garden hose pouring gasoline on the fire. And you're taking CBD or Curcumin with a garden hose to try and put the fire out. You have to identify where's it coming from. So a first step for ahead, inflammation is the neural Zoomer plus test to see how many markers of inflammation do I have, because then as you and some people have 20, 25 markers, look at this. This is a head on fire.

And it's great to find this out because you start doing protocols and six months later, you do the test again. It better be coming down, closer to normal. If it's not, then you have to reevaluate the protocols that you're doing. So you have to identify where is this coming from? Where are the triggers that are setting it off? Is 5-HTP really helpful for anxiety? Yes. For most people it is. Can you explain why? Well, it's the component of serotonin that you melatonin helps you to go to sleep. Melatonin comes from serotonin. 5-HTP helps your body, your brain to calm down. It'll increase the amount of melatonin in your system, in your brain, which helps you to calm down. I don't know of any dangers with 5-HTP. I've used it a lot over the years and I've found it to be very helpful.

Do probiotics help the brain? Yes. How do they help the brain? When you build a diverse microbiome in your gut, 36% of everything in your bloodstream, that's going up to your brain is the exhaust of the molecules in your gut, the bacteria in your gut. So all these messengers going up as you build a healthier, more diverse microbiome, you send healthier, more balanced messages to your brain. We'll have a whole session on that. I'd like to tell my anxiety manifests in the skin picking disorder. It's been a lifelong battle to stop. I've always sought help on an emotional level. Is it a gut or brain issue perhaps? I'm very ashamed. Please help me thinks, way to go. Thank you for asking the question. Thanks. I don't think it's any different. I really don't think you should be ashamed. It's no different than someone that has. I don't know.

I just talked to my daughter a little while ago. She's 40 and she's got a zit on her forehead. She really doesn't like it at all. And I'm not comparing the seriousness of what you've got to that, but some people can get worked up and have a lot of anxiety about that. She doesn't, but some could, any health condition is one that is with questions like this, not by choice. So you're not choosing to have anxiety. So with the skin picking condition, there's a couple of things I would want to know. I'd want to check your pH. You do a series of pH tests. You do your saliva, you do your urine, you do your stool blood, and you get a sense of is this body really acidic? Also, a toxicity can be a problem. Infrared saunas. I would look to see is this person toxic?

I might recommend infrared saunas. We'll put the link in here. There's some really good saunas that we found that I think would be a great asset in everybody's house, but it might be appropriate for you. We'll have a whole session on detoxing to talk more about that. Those kinds of things then.

Is this person well hydrated. It's a half ounce of water per pound body weight? And do I drink a lot of water? How much weight? Why drink four glasses a day? Oh, good. Good. How much are the glasses? Well, I don't know. All right. Well, go get a 16 ounce bottle and pour it in. And is it half the bottle? Yes. Okay. That's an eight ounce glass you're drinking four those is 32 ounces. How much do you weigh? I weigh 140. So you should be drinking 70 ounces a day. You're drinking 32. You're not even drinking half. So you thought you were drinking a lot, but it's not enough, right? So you have to measure how much water you're drinking, half ounce per pound body weight.

So with this question about skin picking, there can be some organic things that make it itch or cause that type of a response, you didn't talk about an itch though. Lifelong battle to stop, but I'd be looking at detoxing. I'd be looking at hydration. I'd be looking at pH. This one is a little more difficult. Your description is not a common one. And it would, if you need somebody to work with Michelle on our team, Michelle Ross, and she, we have a program called the inner circle that Mary Agnes we'll talk about afterwards. I just had a session yesterday on that, and supposed to have one today, but our power died earlier. So I didn't have internet. So we'll reschedule that. So I do work with people on occasion and they're usually pretty tough cases to identify what path should I look at? Where do I need to look for where this is that's happening. So we'd be happy to work with you to see if we can help.

I have severe cervical degenerative disease and had an episode of cervical angina, a brain SPECT scan, hypoperfusion, generally input. Well, your cervical degenerative disease is not likely related to the hypoperfusion. It could be, but it's not. So what do you say? He's got advanced arthritis in his neck and that can be a mess. I've worked with so many people that I've got advanced degenerative cervical disease. And I don't have any problems with my neck, but I'm a chiropractor, right? So I've known for my lifetime, what to do about it. Orthopedic pillows and shoes. What kind of shoes you wear and exercise you do and all that kind of thing. And I have no symptoms. If I don't take care of it within a few months, all of a sudden I've got numbness and tingling going down my arm and say, oh yeah, I forgot. I got to get back on that exercise again.

But hypoperfusion 73% of people with a sensitivity to wheat have hypoperfusion. It's extremely common. Dairy is really high. Also, soy is high. So my point is food sensitivities will cause hypoperfusion very common. And you just need to rule that out. It's too common to not be addressed.

And for your severe cervical degenerative disease, there is a form of chiropractic care called Cox C-O-X, Cox flection distraction. It's a very gentle form of traction in the neck. Like nothing you've ever had before. I done it with many people over the years. I really like it. I liked that instrument and I like working with people's neck and the worst the neck, the more they appreciate it because you have to be really sensitive to what you're doing. And the rule is you take it up to, but not into pain. Take it right up to the edge. Well, that's a really good stretch doc. That's where you hold it right there. Oh, I can go more now. Will we're not going? No, I can go a little. No, we're not going more. And, but it's multiple visits to

do that, but it makes a tremendous difference in the function of the neck Cox flection distraction. So look them up and find somebody certified in Cox flection distraction for your cervical degenerative disease.

What does it mean when your tongue gets cuts on it from eating? Okay. And if you're not biting your tongue, all right, do you have a geographic tongue? Which means that there's lines in it? I'm not sure what else you would mean by cuts when I'm eating, because your food shouldn't be sharp to cut, but if you've got a geographic tone, crevices and lines in there, so it feels, oh, it's really tender over there. Geographic tongue is a biomarker and indicator of what's going on in your body, that your body is like this in some ways. And it usually takes a couple of years to turn around a geographic tongue. If you're not sure if that's what you've got, just Google geographic tongue and look at some pictures and see if that's what you've got.

Let's see. I assume that my gut is healed or at least getting better because of the absence of previous symptoms. But I still get dizzy headache, brain fog, when I eat, especially non-gluten cereals. Could it be from the non-gluten starch? I may experience the same symptoms when taking a smoothie that has been totally innocent before. Okay. Your guts not healed. Your gut is calming down. Perhaps if your symptoms are diminishing, but it's not healed. If you get symptoms when taking a smoothie, then your guts not healed. So congratulations on how far you've gotten with what you're doing, but these dizziness, headaches, brain fog, when you eat. There is something in your digestive tract and your microbiome. Remember one third, 36% of all the molecules in the bloodstream are coming from the exhaust of your microbiome.

I find that when I'm getting a cold sore, I get very depressed. All of a sudden until the blister erupts. Well, that's a pretty good indicator to get on some lysine right away. That would be very helpful. And that sounds like that's herpes, HSV-1 very common. Some studies say 80 to 90% of the population has a herpes virus. Very common. But the question is, do you have elevated antibodies? There's two herpes. There's last time I checked 246 studies on herpes and Alzheimer's just Google herpes. And Alzheimer's here come all the studies. So when you're getting a breakout, it means that your immune system was unable to keep the virus in check anymore. So your inflammatory threshold, that first slide that I showed you, your inflammatory threshold crept up too high. And your immune system's working so hard. The virus started to shed.

It's viruses don't grow. They shed. You get more virus. So the virus started shedding as you were unable to keep it in check. So you raised your inflammatory threshold. What was that mean? Maybe you ate a bunch of stuff who knows, emotional stress, you live near a freeway. You're breathing too many fumes. I don't know what it is, but your threshold was high. So you have to get your threshold back down. And I absolutely recommend you do the Neural Zoomer Plus and find out how many antibodies do you have elevated in your brain right now?

I find that when I'm getting a cold so, can we just do that? The vinegar brand is Harris 30%. Thank you, MA. But how often antibody abs how to clean the shower head to get rid of the bio? How often abs, a-b-s how to clean the shower head. Okay. I'm not quite sure what that means, but how do you clean the shower Head of the biofilm? You can get a pair of pliers and you take the shower head off. It just screws right off, but you need a pair of pliers usually to undo it from the pipe. It just screws right off. It's really easy. And you put it in a Ziploc bag and soak it in the vinegar, and soak it overnight. And then just screw it back on again. And you might do that every six months. I don't know the timeframe depends on your water supply and how full of bacteria is and the pipes in your house and all of that. But I think six months, that would be a good timeframe for most people to do it with it.

I have severe ME and other associated stuff, including multiple chemical, sensitivities and allergies, and also find it very hard to relax. And I'm very anxious. Generally. I have quite bad TMJ, grind my teeth a lot

without realizing and have to wear a special bike guards, but I still have problems with this. My digestion's affected my sleep is poor. I take magnesium 5-HTP at night to try and help me sleep relax. Good. I eat healthy and organically as much as possible. Good. Any suggestions from Thomas? How I can become less anxious, relax, better sleep, better stop grinding teeth. Yeah. Five pillars. It's always five pillars. So, and I'm sorry. Well, what do you mean by that? What are the environmental triggers that are setting all of this off right now? It's not that you're destined to have this, the rest of your life.

It's that you're throwing gasoline on the fire right now. Well, how am I doing that? I don't know how you're doing that. That's why you need to work with someone to investigate. You read my books. If you read, you can fix your brain. I talk about all of these different triggers, some of the tests for those triggers. And so that something might really resonate with you. Oh yeah. That's I should really look at that. Or you find a healthcare practitioner who can walk with you down this investigative journey to find out you're suffering a lot and good for you for doing all the things you're doing to take care of yourself. Really good for you. That's great. High five to you. High five, come on. Thank you. Thank you.

But you have to change your paradigm. The paradigm is what are the five pillars? What's my environmental triggers. How has it affected my microbiome? Because the ratio is nine to one. For every one message from the brain going down to the gut, there are nine messages from the gut going up to the brain and you've got brain dysfunction problems and multiple chemical sensitivities. So you go back to the five pillars and that's what you investigate.

I'm on Remicade for all sort of colitis. I suffer from migraines. I believe there's a connection. Any input? Well, there absolutely is. English isn't my first language. I hope my question was clear. Oh, it was very clear. Thank you so much. And, Ratios nine to one. So I'd go right back to Remicade can be helpful with some of your symptoms. It's not going to fix the problem.

There's no way it's going to fix a problem. There's no evidence is ever is going to fix all sort of you'll have also colitis rest of your life. If you just stay with Remicade, it's good to use a medication now that your doctors recommend it, but you also want to be investigating the five pillars. Where is this coming from? What do I have? Where is the gasoline on the fire? And so while you're taking your medications also be read my books, the autoimmune fix, and you can fix your brain. We'll put the links in here for those.

How do you freeze meats, vegetables, and cereal, you can use plastic containers, Ziploc bags or aluminum foil, glass? What do you personally do to combat stress and anxiety? Who are your gurus or mentors on this topic? Oh, what a nice question. What do I do to combat stress and anxiety? I'm Italian. So I have a glass of red wine every night, rarely more than that. Most, every night I play with Gio I'm at the stage of my life, where I wake up in the morning, Gio wakes us up in the morning and he's Googling and talking and we try on a very soft light and we just look and we smile and he smiles at us to start his day and we just hang out in their bed. In bed with him for a while. And then we have our coffee and he hangs out with us while we're having our coffee.

And then I go about my day and there's the attitude I have. There's always something. There's always something I'm very grateful the power didn't go out tonight. That's really great, but there's always something. And I've seen a video of myself a few times when I've reacted to some stress. And as one of our patients here, one of our participants tonight said, she's ashamed that she picks it her skin. I saw the video of my anxiety and I sound like a whiny little, oh my God. I really, I did do that. Oh, I'm so sorry. And so the way that I handle the anxiety and stress is to try and take care of myself. I make sure that I exercise regularly at least three times a week. Do a nice little things. Now after this, I'll go back out and we'll have dinner and I'll have a glass of wine and just relax and talk I was going to say, well, how was it?

It was really what their questions are great. These are really good questions and let the day go. So really good question. And everybody has to find their own ways, but certainly you must use your body. If you don't use it, you lose it. You must yet it could be walking. The goal in exercise is to wear a pulse monitor

and always be in your aerobic range. And we'll talk all about that when we talk about the autonomic nervous system, more. So I'll go through all of that with you there. And with that one. Who am I gurus? Oh, Joe Dispenza. Dr. Joe Dispenza. I really like Dr. Dispenza. I like his messaging. There's a quote that he has that I referenced often. It's time to stop living out of your memories of the past and rather your vision of the future. And so it's one of the things I do is put a little tension on my vision of our future on a regular basis.

And when I wake up in the morning, I forgot because of Gio. Now, when I wake up, I'd right with Gio, but before that, I'd wake up in the morning and before I move, I'd always look at what three things am I grateful for? What am I grateful for? And it might be, I'm grateful. I woke up, right? That could be one of them. But developing as you do these kinds of exercises, you're developing these personal habits that become ingrained into daily lifestyle, right? But you have to work at it at first. You have to put a little attention on what are you grateful for? Just a couple of things every day. Oh, I'm grateful that there is no forest fires right now. So there's no smoke in the air. Great. That might be one, whatever they are, but what are you grateful for?

And I never watched the news, never. I used to read the New York times. I enjoy reading the times and some of the science news on Tuesdays. And, but we don't have the paper here and I don't like reading on the computer the newspaper, but find little things that give you pleasure and always exercise, always use your body in a healthy non-stressful way. We'll talk all about that. And with that, that was the last question. What a nice last question. Thank you all so very much for that. MA I'm going to turn it back over to you.

Well, thank you Dr. Tom, and good evening, everybody. I just want to go over our inner circle program and that the time that was a great question to end with. I was super excited. I'll get notes out to everybody with all the links from today. And if anyone is interested in inner circle, our inner circle link is "thedr.com/inner-circle". I keep asking them not to put that hyphen in there, but so be it. We have it. So there it is. The "thedr.com/inner-circle". That program is not inexpensive. It's not for the faint of heart unfortunately. It is pretty much the lowest we could offer it with Dr. Tom's personal attention, but you'll see it. So it includes a whole bunch of tests that would actually equal almost the cost of the program.

And then it's got a separate time with Dr. Tom who personally reviews your health and wellbeing. I just wanted to also share that if you do a Google search for herbs, for anxiety. Some really good herbs come up that help to curb anxiety. We have to run that past your own healthcare team because of course everyone's health is so deeply personal. So that's it. My friends. Thank you so much for being here today. If there's any questions I can answer, let me know. Mostly I can answer program related questions. This video, the replay will be in your membership area within 48 hours sometimes right away by Thursday, but sometimes it takes zoom itself time to process the recording. So just keep an eye out for it. And I wish you all a beautiful week and we'll see you next Wednesday for week number two of session number two, you will.