The #1 Root Cause of Brain Fatigue and How to Fix It Transcript

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Introduction and guest background

Welcome back to another episode of the Restore Your Mitochondrial Matrix Summit. I'm your host, Laura, from Ontario. I'm bringing you experts to help you boost your energy and fix your health.

So you can build the life you love. And today, my special guest is Doctor Titus two. Hi, doctor Chu. Welcome to the summit. Hey there. So thankful and grateful to be here and joining you.

I'm glad to have you here too. You know, I wanted to bring you on this summit because you are really a specialist in neurological health. You're a functional neurologist.

And brain mitochondria. They go hand in hand. You really specialize in helping people understand what is brain fatigue. I know a lot of people listening are experiencing that right now, so we're going to jump into it.

But first, you're a number one bestselling author, award winning international speaker, and a functional neurologist, and you help high achieving women supercharge their brains and their lives naturally through online brain healing programs, workshops, and in-person brain health retreats.

So you serve in a lot of different ways. Really glad to have you here. And can you jump in and just start talking to us about why this what how did you create this journey?

What was the path to you becoming a functional neurologist? Sure. So unfortunately, my path started with a car accident over 20 years ago that nearly took my life.

And I survived that car accident. But I ended up with chronic pain and a concussion and all the fallout symptoms, brain symptoms, and one of them being brain fatigue from that concussion.

And I tried everything I could within conventional medicine, but unfortunately nothing worked. So I decided to go outside the box. I got a post-doc in clinical neurology, a master's in nutrition.

I studied functional and integrative medicine. Anything I could get my hands on, even chiropractic and acupuncture chair to figure it out. And I'm so glad that I did, because along the way, when I went through all that schooling, I experimented.

I tinkered with my own brain, and I found these things to really take back control of my health in my life. And so after through that whole process, I was even though some of the darkest times in my life, I feel blessed because now I can share it with millions of people around the world.

I love how you said you tinkered with your own brain. You literally.

From car accident to functional neurology

And you know, after I brought it, I removed it for us for this conversation. So yeah. Oh, it's so good. It's so good. So, there is, you know, there is this story, this underlying theme that I hear from a lot of the people that I bring on to this summit that the challenge was their own health problem.

They figured it out and now they're sharing it with the world at large. And you're no exception to that. So can you break down for us what is brain fatigue versus physical fatigue and lays in there?

Why do we care about mitochondria along the way. Absolutely. So typically when we think about fatigue it's it's we define it as this experience of constant tiredness and weakness.

And many times it's a body experience. When we talk about brain fatigue though, it's actually tiredness that's triggered with brain activities. So the most common types of brain activities are cognitive mental ones like thinking or reading or even engaging in conversations.

But the interesting thing is, in addition to those brain activities, most people when we think of brain activities where we think of those mental cognitive things that we use our brains for throughout the day.

But the interesting thing is, most people don't realize that they're our brains are in charge of so many other activities. Like, for example, there's an area of our nervous system, our brain buried deep within our nervous system called the limbic system, that deals with emotional processing and how we handle our emotions.

There is an area of our brain called the brainstem that deals with gut as gut function, as well as sleep cycles and our perception of pain. There. There's areas of our nervous system called the cerebellum that deals with balance and core stability, so on and so forth.

So the interesting thing is, in addition to brain fatigue, when we talk about brain fatigue, people experience, they might have like brain fog or trouble concentrating or they forget things in addition to those higher mental activities, you can also have brain fatigue.

And it shows up as dizziness or headaches or chronic gut symptoms that no matter what you do, diets, you do try or supplements you take, your gut doesn't heal, so it goes a lot deeper than that. So.

But the most common form of brain fatigue, I think most people are cued into is that cognitive like brain fog. Yeah. You know, they get triggered with thinking or reading or even in conversations or they just can't or decision fatigue or you just can't stay focused and stay on track.

Yeah, absolutely. That's actually the cool thing is, the reason why I love neurology is because it really gives us this kind of window into why we experience these things, whether good or bad.

Right. And what you just described, this decision fatigue, it's actually located in this area of our brain called the prefrontal cortex. And specifically the inside portion of the prefrontal cortex has been associated with decision.

And so I fire that one. Yeah. Depending. And that's the cool thing when I talk to my patients or clients or even these quizzes that I've developed, when they take the quiz, they can quickly identify which area of their nervous system is that the root cause for their brain symptoms, whether it's indecision, like it's the prefrontal cortex, then there's things we can do to strengthen those areas.

Okay.

Brain fatigue versus physical fatigue

So this is going to be a fun talk because I know everybody's going to want to know how do I how do I solve that problem. How do I do it. So you've just outlined brain fatigue versus physical fatigue.

Can you bring in mitochondria. Now tell us why. You know what's so important about mitochondria in the brain anyway. Absolutely. And as you go as you know. Right.

And as most of our audience knows, when it comes to energy, it's all about the mitochondria. Up to 95% of the energy that our body produces is through the mitochondria, probably even higher.

Right. But especially when it comes to metabolically demanding organs like our brain, our brain consumes so much energy, even though it's not very big compared to the rest of our body.

It burns about 20% of our energy supplies. Right? So yeah, when it comes to brain health, mitochondria and brain just go hand in hand. Without a healthy mitochondria, your brain just can't function.

Whether it's if you're just trying to focus and make decisions, if it's this prefrontal cortex or this area of your nervous system called the brainstem in charge of handling your stress, putting the brakes on the fight or flight response, if that area doesn't have energy by way of the mitochondria, it's going to be there's it's going to be an uphill battle.

And so what I've learned though, one of the number one cause is root causes for brain fatigue is actually inflammation and brain inflammation. Because those mitochondria right.

Those precious little organelles, these, you know, kind of like these bacteria that evolved over the course of many years to provide us energy. They're very sensitive.

Like years ago they gave they kind of bartered negotiate this deal with our cells to be house like, hey, if you house me and protect me, I'm going to make energy for you so you can continue, you know, rebuilding your house.

I've never heard it described like that, but I could just imagine. Yes. Yes, it I kind of see, it's almost like this yin yang, kind of feminine masculine energy, right, where you have this mitochondria.

That's very nurturing. And because it kind of struck a deal with your cell, which is kind of like the protector or whatever, it's like, okay, I'll provide you energy, but you got to protect me, right?

And I'm speaking energetics and so that being said, because of that they relinquish a lot of their defense capabilities like their antioxidant capabilities, their detoxification.

So they're very sensitive. And so one of the things that can really damage your mitochondria, especially the mitochondria that exist in your brain is inflammation.

Yeah that's a big one. So what we're going to dig into inflammation here and other causes of brain fatigue. But what I'm hearing you say really is you've got a lot of you know, great ways to help people fix their brain fatigue and really be highly cognitive functioning.

But at a foundational level, if mitochondria are flatlined and not working, if they're under stress, duress, it's going to be really hard to get where you want to be.

And that's really what I like to teach, is everybody coming on this summit has a specialty and underneath that, what we all share in common is we've got to support mitochondrial health to get where you want to be.

Crucial. Yeah, yeah. Actually, when it comes to brain health so very important okay. So you've got you just started talking about inflammation. We can go down that and talk deeper about inflammation.

Or you can share some other causes of brain fatigue which direction you want to go right now.

Why mitochondria matter for brain health

Sure. So yeah I mean in addition to when we talked about mitochondrial health and brain health, inflammation is a big one. And what ends up happening I see so often there's what I call the brain fatigue vicious cycle where you have some type of stressor, right?

Whether physical, chemical or emotional. So physical stressors, for example, what happened to me, a car accident many years ago. But that physical stressor could be something like a minor stressor, a physical stressor where we find ourselves sitting a lot.

Right? So there's a physical stressor or a chemical stressor, like exposure to toxin or highly processed foods or some type of food trigger that can trigger stress or mental emotional stressors, which we all know about.

Right? I don't need that. Regardless. You know, some type of stressor which can trigger this inflammatory reaction within your brain and nervous system, leading to inflammation.

And then from there, we have a damage to those mitochondria, those sensitive, really precious, you know, powerhouses of our cells. And once you have that, you have less energy, not only for just to, you know, for example, when we're talking about decision making, not only for making decisions, but less energy for that healing, and it becomes this vicious, vicious cycle.

So you have a stressor, you have inflammation, you have damage to your mitochondria, less energy for the healing. And then it goes on and on. And then that's the cycle.

The hamster wheel is just keeps repeating. Exactly. Because it's what you have this energy healing crisis. Because in order and I really experienced this in my journey, healing my brain because most people, if they experience some type of trauma or a chronic stress, what ends up happening?

We have this energy crisis where a lot of the energy that was used to, again, run our brain, whether it's decision making focus, planning ahead, organizing our lives, right, all that energy then becomes not all, but the majority gets shunted towards the healing response, right, in order for us to heal.

So a lot of the time we end up, especially if our mitochondria and taking care of we end up not having enough energy again to not only be able to do what we need to do in our lives and to show up, but also for the healing response.

Okay, so, so that healing response, what needs to be in place for people to be able to really heal? How do we fix this? Yeah, that's a great question.

What I found in order to break that vicious cycle, we really need to get to the number one root cause of that brain fatigue and vicious cycle, which if you get this right, you can break that cycle and, you know, heal your mitochondria and your brain and get your life back.

You get this wrong, then you stay stuck in that vicious cycle and you end up experiencing all the effects of sick mitochondria and these areas of your brain that are just stressed and worn out and fatigue.

Right. So what I found is the number one root cause that perpetuates that vicious cycle is what's known as leaky brain or a breach of the blood brain barrier.

And so like I mentioned before, I talked about all these different regions of your nervous system, like the prefrontal cortex.

Inflammation, stress, and the vicious cycle

It allows us to have a good focus, concentration, follow through and motivation. Right. As an example, there's these other areas that we called the brainstem that's in charge of gut health and putting the brakes on stress.

My point is all these different brain cells, they're protected by what we call the blood brain barrier. It's this really thin layer of tissues that allows things that should come into our nervous system to come in like nutrients, oxygen, and so on and so forth.

And it also acts as a filter to prevent things that shouldn't be in there, like, toxins, inflammatory chemicals we call cytokines or antibodies. It prevents those things from coming into the nervous system.

Now, the thing is either through, physical stressor, like I mentioned, like trauma, like a concussion or even a whiplash. You can actually damage your blood brain barrier, but you can also have chemical stressors, like toxins can actually cause damage to your blood brain barrier.

In fact, even the physical reaction to mental emotional stressors aka the HPA axis where you have a triggering of stress hormones, cortisol that has been shown to also damage the blood brain barrier.

So from there, what I found is if you don't heal leaky brain, then that vicious inflame matri cycle that damages the mitochondria, leading to poor energy, right, and energy for healing and just doing what you need to do in your life.

That's never you're never going to break that. I've actually found that that's the number one thing. If that's not addressed, then healing will either be an uphill battle or honestly might not even happen at all.

And that's what the research shows to leaky brain, really, when you look at it, it's kind of like the gateway for all these serious neurodegenerative diseases like dementia or Alzheimer's.

And even if people never develop those serious diseases, they end up having these kind of nagging brain symptoms like brain fog and brain fatigue, anxiety, depression, just feeling stressed and so on and so forth.

It sounds like there's a lot of causes of leaky brain. Yes, absolutely. Most people think that it's just like trauma. I mean, learn about leaky brain, which is actually one of the most common causes of it.

But there are so many different causes for leaky brain as well. And that's the thing. That's why people get stuck in this vicious cycle. You don't need to have had a concussion or a physical trauma to end up having leaky brain.

You can just have chronic stressors. I mean, research shows that even one acute inflammatory like stressor can lead to a leaky brain. I've seen research of, for example, binge alcohol drinking.

Also just going on a bender with your friends bam can actually cause leaky brain. I can't tell me how many times I've worked with patients and clients who, for example, maybe have had a concussion and then they didn't have one, you know, for maybe it was like 3 or 5 years ago and they're like, yeah, I don't know what happened, but I just had this really stressful event and I feel like I have another concussion, but they didn't actually have a physical trauma.

And the reason for that was that leaky brain. But again, it does even have to be this physical trauma, like a lot of the symptoms of leaky brain, are everything we talked about that brain fatigue, that brain fog.

And just like that fuzzy feeling and depending on again, which area the nervous system is being impacted, you can have things like anxiety, depression, chronic stress, maybe even chronic gut symptoms that aren't resolving because it's actually a problem.

Leaky brain and blood-brain barrier damage

Not with the gut like leaky gut, but actually with the other barrier that's known as the blood brain barrier. Leaky brain. So I'm assuming leaky brain can also be caused by things like mycotoxins, low grade infections in the body, toxins being secreted by parasites and bacteria, and toxic metals, environmental toxins.

So those all go into the bucket, right of all. Oh, yeah. There's so many causes for leaky brain. Like what you talk about with the infections like lipopolysaccharide, these compounds found on the outside of certain types of bacteria, when they're released into the bloodstream and they cross the blood brain barrier, or they even get up to that blood brain barrier, they can damage.

There's so much research looking at how LPs can lead to damage of your blood brain barrier. And speaking of which, gut dysfunction, like the gut barrier, is made up of a lot of different cells and proteins we call tight junctions.

And those tight junctions are actually very similar in structure to your blood brain barrier. So many times, if you have a leaky gut that can trigger an inflammatory response, an autoimmune or an immune response that not only damages the gut but actually can lead to leaky brain.

So it becomes, again, this vicious cycle. But what I found, especially when it comes to brain symptoms and we kind of, you know, expanded the definition of what those brain symptoms might look like.

I found that if leaky brain isn't address, it doesn't matter what you do on the outside. If you don't get that leaky brain addressed and healed, it becomes an uphill battle, especially when it comes to brain symptoms.

Okay, so let's talk about what people can do to fix leaky brain because clearly that's a big problem. So where do people go from here? Yes. The great news is I'm not just the harbinger of bad news.

You know, I want to paint the picture so people understand the importance of it. But the great news is there's actually simple, natural ways that you can heal a leaky brain.

And the beautiful thing is, my philosophy is that our brains and our bodies have a wisdom that we have this innate healing ability. And research shows that, like many times, leaky brain can heal on its own.

Right? But sometimes there's these obstacles that block that. So what I found is there's some simple ways to just support that and accelerate the healing response.

So I'll share with you three. The first one is fish oils. Fish oils have been shown to decrease inflammation. And those fish oils are embedded into our cell membranes.

And under states of inflammation, those fissures can actually be used or not even just fish oils, but omega three fatty acids like EPA and DHA, a icosapent penta acid and docosahexaenoic acid.

Those omega three fats in states of brain inflammation can actually be brought out of the cell membranes and converted into these powerful anti-inflammatory compounds called special pro resolving mediators.

So that's why I think fish oils, again, or omega three fatty acids, especially EPA and DHA. Number one, when it comes to healing a leaky brain. Number two, research has shown that also exercise when you exercise there's actually research showing that exercise.

Just simple, you know, aerobic exercise when you exercise. That can also help strengthen a leaky brain and also prevent it from getting leaky air later on in the future.

So not only can heal it, but can also boost your brain, your blood brain barriers, resilience. It strengthens that barrier. So how much exercise are we talking here?

What do people need to do? It really depends. You know, exercise needs to be personalized to what a, you know, a person's ability. But it doesn't have to be that intensive, right?

It could be. Yeah. I usually tell my clients or patients to start with three times a week, maybe 15 to 20 minutes of simple walking really depends on where they're at.

There's different target zones. I usually recommend people hit cardio two, which means that you're able to still have a talk or have a conversation. If you're talking to someone.

But it's it's a bit more labored. You can still talk, but it's kind of harder to breathe. But it's not like you're sprinting or running a marathon and you can't, you know, speak at all.

Natural ways to heal leaky brain

So that's kind of where I recommend people start with, I've found that especially people have had concussions, though, their exercise talents typically or honestly, a lot of people who have mitochondrial issues, their exercise tolerance usually is a bit more tanked.

So it's about finding that right amount for you. So but I usually recommend just, you know, as a starting point, trying three times a week, 15, 20 minutes of light exercise.

And then, you know, tailoring it to what you need based on your, your tolerance and your own. Okay. Great. Okay. And you were going to give us a third thing.

So what's the third fixer. Yeah. The third thing is activating your vagus nerve. And so the vagus nerve I actually mentioned this earlier is it's this key structure.

It's located in this area of the nervous system I mentioned earlier called your brainstem. It's this area that's all about your autonomic functions, meaning breathing, your heart rate, even your gut motility.

The release of digest of enzymes. It's controlled by your brain stem and your vagus nerve. So the vagus nerve is housed. So this is your brainstem I just popped it out for you guys.

Your brain stem is housed between your brain and spinal cord. And then the bottom part of your brainstem. That's where your vagus nerve lives. And it pops out.

It's actually the vagus is Latin for the wanderer. It comes from the same root as a vagabond, right. Because it wanders all over. It is the longest cranial nerve in your body.

It starts all the way up here. It goes to your lungs. Your heart even goes all the way down into parts of your your digestive system. So my point is one of the functions it does in in addition to heart rate and breathing and digestion, it puts powerfully puts the brakes on your stress response.

And there's a lot of simple, natural ways, low tech ways you can activate your vagus nerve. Anywhere from breathing exercises could activate your vagus nerve.

Believe it or not, enemas can also activate your vagus nerve because of the stretch receptors in your colon. A simpler way, without as much, you know, gear is one of my favorites, what I call the palming exercise.

Or you put gentle pressure on your eyeballs. But yeah, the point is, there's all these different ways of triggering that parasympathetic, what we call this rest, digest and heal response, putting the brakes on the stress response.

And the cool thing is, again, research, there's research out there showing that activation of your vagus nerve not only can help accelerate the healing of leaky brain, it can actually people have had like, research subjects that have actually experienced things like concussion as an example.

It can help protect against, furthering of leaky brain as well. So, yeah, there you have it. Three natural ways. The fish oils or omega three fatty acids EPA simple exercise routine.

And then last but not least, these low tech ways of activating your base. So I know you've got a whole probably protocol that you use to help people fix their leaky brain.

And I think you're doing this without pharmaceuticals. You're doing this with lifestyle supplements, natural ways to to just reverse this, brain fatigue.

Right? Absolutely. Yeah. A lot of again, and this is stuff that I've developed over the 15 years that I've been in practice, like experimenting and tinkering with my own brain, like I said.

But then bringing those discoveries I made to my patients and clients. And then it's also supported by the research. It's it's all science based. But yeah, there's so many natural ways to specific diet.

There's actually really healthy foods that can damage your blood brain barrier that we might be eating every single day. There is specific supplements, like one of the most powerful ones I mentioned, but there's other ones too, like gingko, for example, or liposomal glutathione.

And there's exercise. But one of the biggest things I've seen as well is actually ways of activating the vagus nerve

through these simple physical exercises that you can do.

But there's also the high tech ways of activating the vagus nerve as well, through the use of electric circles. Like, that's what my phone is.

Working with Dr. Titus and closing remarks

Yeah, I like zero. That's like, kind of like the future of. Yeah, a lot of brain health is this exploration of these really cool, noninvasive ways, using technologies to hack your nervous system.

And there's a lot of research looking into the vagus nerve right now. Oh, so good, so good. Okay, so where and how can people work with you? Find you?

I know you have some great support for our viewers. Yeah, absolutely. So really, if if for those of you out there who can resonate with what I'm talking about, the first step is to identify, do you have a leaky brain?

Is that creating that vicious cycle of brain fatigue for you and in your life? So I actually put together a quiz that can help you to simply and quickly identify if you're at risk for leaky brain, low, intermediate or high risk.

So you can go to that quiz. It's a free quiz. Leaky brain quiz.com. Leaky brain quiz.com all one word. So this is where I would start. If you're interested in learning more about leaky Brain and to find out more about me, my website is Brain save.com and you can find me on Instagram as well as Facebook.

Oh, amazing. I love how you break all this down. So simply, I think the brain can be such a confusing, complex. It's a complex organ, let's face it. And it's a confusing, complex system in the body as well.

And you make it so easy. So I really appreciate, how simple you make this for everyone and practitioners and, you know, consumers of health care combined.

And, you know, I just want to honor you for what you do in the world as well. I have the, you know, pleasure of being able to meet with you a couple times a year in person.

And you are so much fun and, truly a pleasure to spend time with. So I really encourage the viewers today to look into what Doctor Titus two has for you because, he's the real deal.

He's authentic and loving and, doing great things in the world. Thank you. Laura. Ditto. Yes. All right. Well, Titus, until next time. You take good care.

Have a great day. Awesome. Thank you. So bye.