Introduction and Functional Neurology

Welcome back to the Parkinson's Solutions Summit. I am your co-host, Dr. Sandra Scheinbaum. And today I'm so pleased because we haveon the summit a special guest, Dr. Titus Chiu Welcome here. Yeah.

Thanks so much, Sandy. It's always a pleasure. So, well, you have just an amazing background and experience and you call yourself a functional neurologist.

Can you explain what that is and how you came to be a functional neurologist? Yeah, absolutely. So. Function neurology is, you know, kind of distinguished with more conventional neurology.

It's we use a very similar thought process at the end of the day. All neurologists, we're trying to help our patients. Right. If they have some type of neurological disorder.

Right. That's impacting their lives. At the end of the day, that's what we're trying to do. And so there's some similarities with functional neurology versus conventional.

And some of the similarities is one of the major goals as a function neurologist is to identify what part of the nervous system is the root cause for a person's symptoms.

Right. And so that's the very common approach that all neurologists take, whether it's functional or conventional. And so in the case of Parkinson's, there's a lot of research that we understand that there are very specific regions of the nervous system that are indeed impacted.

You know, that there's actual cell damage and sometimes death, depending on how long it's been going on for. My brain turned a little blurry when I said that.

So it's just is playing along with the presentation here. But yeah, there's specific regions of the nervous system that we know in the research that gets impacted in Parkinson's.

But in addition to that, you know, what I found over the years is that there could be other kind of side effects in other areas of the nervous system that are impacted, too, that if you can support that, it helps a person get get, you know, cope better with it or it helps improve their brain function overall.

So yeah, so that's one of the major kind of commonalities we have is figure out where in their nervous system is the root cause for the symptoms. One of the major differences is many, many convention neurologists, but unfortunately the only tools that they have at their disposal is medications or surgery.

Right. And obviously medications, especially when we talk about Parkinson's, sometimes it's really necessary to help a person function. Right. And there is a lot of research looking at more cutting edge types of surgical procedures that can also be helpful, like deep brain stimulation.

But where where there's a bigger divergence there between conventional and functional and functional. We, as you know, trained as we like to look at the bigger picture of, okay, there is this area of the nervous system that's being injured, that's causing symptoms, and then we can create a diagnosis of Parkinson's.

And that's usually where conventional medicine stops. It's like, okay, you have this diagnosis, here's a medication, hope for the best. Right? And maybe there's these more experimental surgeries and some research around that.

But but that's the major tools, right, of conventional neurologists, whereas function neurologists and everyone's a bit different in their training. But we look like to look at the bigger picture, right?

Why Concussions Matter for Parkinson's

So we know that there are certain areas of the nervous system, what we call the brain stem in particular, and more specifically the substantia nigra pars compactor that's impacted with Parkinson's, a very specific group of brain cells.

But in addition to that, we want to ask the question why? So function neurologists, they like to answer that question Why is this happening with this person?

Was their exposure to toxins? Was there stress? Was there is inflammation. And like we talk about Sandy, was there some type of emotional psychosocial component to all this?

Because believe it or not, it's all connected, right? And all of those things. And then some can completely, you know, set the stage for someone to either be at risk for Parkinson's and or to develop it based on their genetic predisposition.

So, yeah, that's the best way to classify it, right? Function neurology. We typically neurologists have more tools, right? So we like to use tools like nutrition.

We like to use lifestyle changes. So in my practice, I use advanced technologies. I even have simple exercises that I give my patients and clients that can help strengthen those weaker parts of their brain so that they can function better in life.

So that's the major distinction. And, you know, answer your question why I got into it. Your second question is because over 21 years ago, I was in a terrible car accident that nearly took my life.

I was on my way to work home from work. One day I was on a scooter and I got hit by a car and I flew off that scooter and I ended up with broken ribs, dislocate a shoulder. And even though I didn't know it at the time, I actually suffered a concussion.

And so I tried everything I could within conventional medicine that I knew was available and nothing worked, right? So I decided to go outside the box and I went back to school.

I got a post-doc in clinical neurology, I got his master's in nutrition. I studied functional medicine, I studied chiropractic, acupuncture, even energy, medicine, anything I could get my hands on to find answers to my health problems.

Right. And I am so grateful that I did and so glad that I did, Sandy, because along the way, everything I learned in school and poring through scientific journals and watching videos, you know, I applied an experiment in with my own brain, right?

I began to tinker with my own brain. And after many years of trial and error, I was actually fully able to recover from my concussion as well as that chronic pain.

And so that's why I do what I do. And I realized this was like a very eye opening moment for me, that the things that I want to reach for in terms of health care just didn't cut it right.

And so I'm so grateful, again, for, you know, there's a time and place for everything, right? I'm so grateful for the ambulance drivers, the emergency medical team, the nurses, the doctors at the hospital.

And they took me to the hospital by way of ambulance. I'm so grateful that they made sure I wasn't going to die. Right. And that I was medically stable.

And that's really where I see a lot of conventional medicine shine. But unfortunately, as literally, I was then left at the curb to fend for myself and so for many years after that car accident, I suffered with like symptoms of

concussion.

And so, yeah, that's why I went outside the box to finance this. And again, I'm so glad that I did because then from there I was able to take the things that I learned, the discoveries I've made, and share that with the thousands of patients and clients and students that I've worked with over the years as part of my programs to help them reclaim their health, heal their brains, and reclaim their lives as well.

Wow. Well, what an inspiring story and what you have shown by your your courage, your perseverance in expressing gratitude for those who issue life saving measures.

We're there for you. But you've gone on from that trauma to really make this your life's work and inspire so many others. So the connection, concussions, power concerns.

First of all, what exactly is a concussion or hey, somebody is not familiar with what are some of the symptoms? How do you know if you've suffered a concussion?

And then what's this connection? Is there a connection with Parkinson's? Yeah, great questions. And so concussions are tricky, you know, because most people think that in order to have a concussion, you have to, you know, see stars or even get knocked out or blacked out.

But that's not true. When I was even in that really bad car accident, when I hit the ground, I didn't see Star. I think I was wearing a helmet. I mean, that literally saved my life.

But I didn't see stars. I didn't lose consciousness. All right. So in fact, did you know, you don't even need to hit your head to sustain a concussion, right?

Yeah. I've had patients where they're on a roller coaster that kind of threw their body around. They didn't hit their head, but because our brains are in this little fishbowl we call our skull, and it's floating in this fluid we call cerebral spinal fluid.

Any force, even to the body or a jostling to the head can shake the brain up and cause a concussion.

How Concussions Are Identified

I've had patients even riding a bicycle fall off the bicycle, lose their balance, and then they end up, you know, landing on their risk or maybe hitting their wrist or hitting their shoulder, not even hitting their head.

And then sure enough, they develop concussion symptoms. So that's why I really think concussions are a silent epidemic. I think there's a lot of people, unfortunately, with mystery brain symptoms, potentially even Parkinson's, you know, as a consequence of these untreated concussions.

So some clues, though, that you might have a concussion, You know, and that's guess it's a tricky thing because it really depends on what part of your nervous system has been injured.

So some common symptoms I see, especially like an acute phase of concussion. People might feel a bit dizzy or lightheaded. They might feel really tired or brain foggy.

So those are typically more common of like an acute phase, like within a few days to a week, you know, But then the symptoms of concussions can develop sometimes weeks or months later.

That was actually the case for me when I hit the ground. Again, the most pressing thing on my mind was these broken bones and this dislocated shoulder. I was in a lot of pain.

And so it was like my focus was fixing the chronic pain, which I was able to, with the help of my brother, who's a chiropractor. But then I had all these brain symptoms, right?

And so they didn't actually develop until a few months later and it wasn't like, boom, immediately they kind of crept up. And so I found like, you know, for kind of more chronic symptoms of concussion, you know, symptoms in really depends on what part of the brain again.

But I find that people have brain fog. They might have brain fatigue like if they use they think a lot, they start to get tired, maybe they're reading or something and they feel sensitive to a screen, maybe headaches.

So there's physical, you know, symptoms of that. But then there's also mental emotional symptoms. So I've had patients who maybe they've had anxiety in the past, but it was manageable.

And after a concussion boom, their anxiety was just completely took over their lives. Right. I've also had patients who developed depression after a concussion because of the inflammation in their nervous system can actually trigger what we call sickness behavior syndrome, which looks a lot like depression.

But it's not a psychological issue. It's actually rooted in the biology. But honestly, you know, Sandy, therein lies the hope, because for all these symptoms, are there physical, chemical or physical, mental or emotional?

Right. Once to understand if it's caused by the concussion, there are specific things you can do about it to heal the brain physically. Right. And so, yeah, those are some of the common clues that there might be a concussion.

You know, some of those symptoms. But especially I encourage anyone watching this, if they're struggling with mystery brain symptoms or even things like Parkinson's.

And we know the research shows that a single concussion can actually increase a person's risk for Parkinson's by 57%, over 50%. Right. So anyone watching this who might suffer from any of those symptoms or obviously Parkinson's symptoms, look back in your own life history.

Right. Was there a time where you were in a car accident, a whiplash? Right. Or maybe you did have an obvious hit to your head and you blacked out. But from there, it's like, that's what I do for my patients.

I really explore the history. And then I we sure enough, they're like, oh, in there, in, you know, And I, they're filling out the forms. I have a form, a question in my forms.

Or have you had a history of concussion? And sometimes if a patient's coming to me specifically for help with concussion, they're like, Yeah, I've had many, but many times I have.

I work with patients who just have these chronic mystery brain symptoms and they say, no, I haven't had a concussion. And then I explore them, you know, are you sure?

And oh, yeah, they're like, Oh, I was in this car accident when that was actually around the time that I started have symptoms. And from there, you know, so a big part of it, as you know, you know what the whole function medicine coaching approach and function medicine in general is really exploring that history.

So yeah, I encourage people to look back. Right. And if there's any clues for that, then part of your health challenges could be triggered by an untreated concussion.

So for health coaches who may be listening, these are questions to ask when you are working with somebody or working with their family members. What about concussions?

And it might be not just of a fall or something that would be obvious, but perhaps too many rollercoaster rides. I was just at a at a carnival. Can't be good.

They were going upside down and twirling their head and yes. I know, I know. Back in the day, I mean, I you know, I used to love roller coasters and, you know, after my concussion and this was one of the clues that something was different because it wasn't, like I said, obvious had a concussion after that.

When I looked back, it was like when I wrote a roller coaster, I felt terrible. But yeah, I just remember the roller coasters when I was younger, and now they're even crazier.

So definitely, you know, those are things to watch out for, for sure. Yeah. What about treating a concussion? Is it treatable? And if so, what are some of the ways that it can be treated?

Absolutely. Great question. And so the answer to that is yes, Concussions are absolutely treatable. I was proof of that. All the patients, clients and members of my community, they're proof of that that healing is possible.

Right. So because we know a lot about what happens to the brain after a concussion, you know, a lot of people I think when I tell them I'm a brain expert, I specialize in the brain and concussions, they're like, whoa, You know, even doctors think that the nervous system, the brain is like this mysterious black box that we don't know anything about.

But the opposite is true. There's so much we know about concussions. There's so much we know these days about Parkinson's as well. And so the great news is there's a lot that can be done.

So, you know, and I have actually a three step process that I walk people through to help them heal from their concussion. Right. Step one is where we prime the nervous system to help create the best possible environment for healing.

Right. And so the just before. So it makes a bit more sense. Right. So after a concussion. Right. If you have either physical head injury like you actually hit your head or even if you're in a whiplash that's strong enough or even in a roller coaster, like we were saying, if there is a physical trauma to the brain, that's the first thing that happens.

Treating Concussion with a Three-Step Approach

But then the second thing that happens is it launches a chemical response, meaning after the physical trauma, what ends up happening? The nervous system launches in inflammatory response.

It creates massive inflammation in the brain and nervous system. Right. And depending on how strong the concussion was and or the state of health of the person at the time, then that inflammation can not only become really strong.

And the thing is, as you know, Sandy, inflammation is actually a natural necessary part of healing. But if it's so strong, number one and or there's other things going on at the time of the injury, like many times I of patients and one of the questions asked my patients like what was going on at the time of your health challenge.

Right. Was there stress? Were you you know, in living in a moldy environment, was there other did you have other health challenges? Point being, if there is a lot of other things happening and or the injury was really strong, that inflammatory response could get stuck in the arm position.

And rather than supporting the healing process, can actually lead to further damage and destruction and again, leading to what we call post-concussion syndrome.

And that's what I had, right? I mean, there are symptoms either months, even years after the original head injury that could, you know, persist. So but that being said, that's actually what happens in a concussion.

The good news is 85% of people that have a concussion, the majority recover within a few weeks. Right. They don't have symptoms. They recover. 15% don't, though.

And so the question is, why is this unlucky 15% like I was one of them is because of that inflammatory response get stuck. And one of the things I discovered is what's known as leaky brain, where a protective part of the nervous system gets damaged and it ends up leading to this vicious cycle of inflammation and then further damage.

So, yeah, so just to kind of, you know, paint the the set, the stage, that's what happens with the concussion. Most recover the people that don't end up, you know, lasting with lasting symptoms.

But the good news is even with those 15% like myself, healing is possible. But that's actually one of the reasons why I think, you know, even with a single concussion, a person's risk for Parkinson's could increase by 57% is because there's that inflammation that just hasn't been put out, that fire in the nervous system hasn't put out.

But like I said, the good news is when you can identify that there's things we can do about it. So that goes back to that three step process of sharing.

Step number one is priming the nervous system, meaning putting out any inflammation in the nervous system that could be causing damage to the brain. And so there's specific things like you can do for that in terms of diet, in terms of supplements and lifestyle.

So that's step number one priming. The second step, I find that's just as important if and I find one of the biggest missing pieces in healing from a concussion, but not only concussion, but also in terms of things like Parkinson's is step number two is activate.

And what I mean by activate is not only do you have to prime the nervous system for healing by putting out the fire of inflammation, right. Getting rid of stressors and triggers.

But the brain is unique. And not only does it require nutrients. Right. And so things like healthy fats, healthy proteins, vitamins, minerals, the brain also requires activation, right?

Because our brain is there's all these communication pathways happening right now, like our ability, the people watching right now to watch understand what I'm saying and follow along is because there's all this communication happening within their nervous system.

Right. But what I find is in concussions as well as in Parkinson's, those communication pathways become injured and there is a breakdown in communication.

And so that signal gets muffled. Then you start to have symptoms. Right. And in the case of Parkinson's, obviously the most common symptoms are motor symptoms, where you have a slowing of movement or you have a tremor perhaps many times I find that shoulder pain is very common because the core muscles have gotten weak.

Right. But in addition to that, you can also have a slowing of the thinking processes, you know, depending on which areas inflamed. My point is the brain that only requires removal of inflammation and stress and triggers.

But there's things we can do to actually strengthen those connections that might have been weakened right through the concussion or in the case of Parkinson's, maybe through stress or exposure to toxins, so on and so forth.

So I find that's one of the biggest missing pieces is training the brain physically. And there's simple exercises that you can do. And I found in the comfort of your own home that can actually strengthen weak parts of your nervous system.

So, for example, a very common thing I find for patients with Parkinson's and actually a lot of patients with concussion, they have problems of balance, right?

Their balance isn't very good. And I find that's because this area, their nervous system that sits at the base of their brain, we call the cerebellum.

There are some issues there. The cerebellum is really important in terms of coordinating movements. So the smoothness of a person's movement is determined by large, in part by their cerebellum.

But the cerebellum is also not only important for coordinating movements, but also for balance, right to have good

core stability. So people who have weak cerebellum typically, I find, is they have issues with balance.

They have issues of coordination, and they have issues with the smoothness of their movements. Right. And so, for example, though, there's simple exercises you can do to strengthen your cerebellum, right?

You can activate the brain cells in your cerebellum by doing something as simple as core strengthening exercises. So just the other day I had a patient come to the office and we tested her balance and sure enough, right, she had a history of concussion and these other symptoms related to, you know, movement, slowing of movement.

And sure enough, we found that her balances off. Right. I did a bunch of different tests, tests, something as simple. Most people can do in the comfort of their own home is just standing up, putting their feet together. Right.

And sometimes even that can cause a bit of challenge for some people. But most people, it's okay. But then when the challenges, the more challenging version is by closing your eyes, then you're going to find a lot of people are just way some level or the other.

That's a clue because in order for us to have balance, we use our brain uses cues from our eyes. So vision, it also uses cues from our inner ear, what we call our vestibular system, and it also uses cues from our muscles that end up in our cerebellum right?

So the point being, when you close your eyes, then it's really the cerebellum and the other parts of your brain that have to they have to be working really well anyways, we did these tests.

She came into the office, we did these tests and simple tests that many people can do at home. She put her feet together. She pretty balanced. But then when she closed her eyes, that's when she started swaying.

Then I knew that we can do that. Like number one, we identified one of the root causes for her balance issues, which is this area we call the cerebellum.

But then for her, we gave her some simple exercise where I took a foam pad. All right. I'm like, okay, here's a foam pad stand on this foam pad. Okay.

Because standing out in unsteady surfaces are really a great way of strengthening your core muscles, as well as not just your muscles, but more importantly, your shirt. All right.

So there's a lot of different ways of activating the nervous system. And a lot of people watching this might think like, wow, just doing balance exercises.

I thought that was for your core muscles and this shake your muscles. But yeah, in addition to that, the quote unquote, actual real benefit for the nervous system, it's actually activating brain cells within your cerebellum.

So yeah, so that's step number two like we're talking about. Just to kind of recap different things people can do to recover from a concussion, number one, deep priming their brain to decrease the inflammation, also giving the brain the nutrients it needs for healing.

So things like omega three fatty acids, EPA, DHEA, things like that. Number two, activate and just doing sometimes very simple exercises, physical exercises that can actually, believe it or not, trigger what we call neuroplasticity within the brain.

And it's really cool. I explain it to my patients as personal training for your brain, right? We can identify which areas are weak. And then once we identify that using simple at home exercises like special types of eye movements or special movements of the body or reaction time types of exercises, all physical exercise, even using believe it or not, essential oils can activate the brain using listening to music, which I'm sure a lot of people have seen.

You know, dancing could be really helpful for Parkinson's, but dancing overall is one of the best exercises globally

to activate the brain and nervous system and trigger neuroplasticity and healing.

So, yeah, that's step two activating. And I gave you some examples for that. And then finally, step number three, what I found is, you know, once we have the brain primed and we start to we clear out the inflammation and then step two, once we actually start to train and rewire the brain, then step three, just as important is renewal, right?

So step three is renew. And that's all about having downtime, That's about allowing ourselves space for all the things that we're up to in life. And especially if you're doing treatments to integrate.

That's actually one of the biggest mistakes. I see a lot of patients make. I made that mistake in my healing journey. I was so dedicated, obsessed with getting better and healing my brain that I put so much energy and effort into learning new things and applying things that it was kind of like I was always tilling the soil and I didn't give it a chance to actually grow, right?

So that's one mistake I made, and I see that quite often. So step three renewal is so important and that looks like, you know, taking breaks in our if we have busy lives, making sure we step away from the things that we're doing and just allow our brains to have that space.

It could be also something as simple as for those of you to do yoga. Why longer in corpse pose? Just like you know, one of the things I love doing after I travel and I'm just so busy is I find a nice patch of grass and I just do corpse pose and the patch of grass.

Okay, so that's just an example, right, of renewal where I allow my brain to kind of integrate all the things that I've been up to. But not only does it apply for living a busy life, but it also applies to the healing process.

So if you're doing a lot of things, you're taking supplements, you're taking your medications, you're changing your diet, you know, and you're doing treatments just as important as have that downtime.

And again, it could be something as simple as going on a, you know, leisurely hike in the park where you have no goals and you're just wandering. And that's such a great way to allow your brain to integrate.

So, yeah, there you have it. And answer your question. Yes, healing is possible. There are things you can do. What I have discovered this three step process, that those are the things that I did that really set me up for success and has helped many of my patients and clients over the years.

Step one prime, Step two Activate and five. Step three, renew. Wow, this is so powerful and so many good suggestions that you threw in. And I just want to circle back to something we've talked about, the second one with Balance and Dance.

Hope, Balance Training, and Where to Learn More

So I take ballet three times a week and there's an exercise we do that where you put one foot in front of the other like you're walking on a tightrope.

You put your arms out in front, and then he makes us close our eyes and hold it. And at first I could not do it at all. I mean, I just had to open my eyes after like two.

So I was wobbling all over the place. But after practice, over and over again, I got better and it was so exciting. When I'm doing it, I'm not falling over.

And often there's a fear response to or someone used to see the world that way with our eyes closed. But that that is a great suggestion. And I love your three part model and the overarching message of hope.

It's so important that those who are listening to that lose hope and know that there are solutions. And that's why this summit is called the Parkinson's Solutions Summit.

So that you shared that. You know, that's the thing that's I always teach my students and my patients and clients when those things get better. So, for example, that exercise you're talking about, that's actually a neurological test, by the way, that I check on my patients.

But when those things get better, it doesn't just mean your coordination and muscle strength is improving. It literally means you're triggering neuroplasticity.

Healing. In your case, it's not healing your strengthening. Right. Those parts of your brain. But the same principle applies for people struggling with concussion or people struggling with Parkinson's.

Right? So when those things improves, it means the nervous system is healing and getting stronger. So, yeah, I absolutely love that you shared that. Well, This has been a wonderful conversation.

So, Titus, where can people find you? Sure. So I actually have I wrote a new book called Leaky Brain, and I go deep dive into the connection between concussion as well as inflammation as well as all these.

Yeah. Serious neurodegenerative disorders. And again, that there's and more importantly, what you can do about it so they can go to leakybrainfix.com and they can find more about information about my book as well as my work.

Thank you. Thank you so much. And I'm going to make sure that I get a copy of your book. I want to read it and continue this conversation with you. You are so inspiring.

Thank you for being part of our summit. Awesome. Thanks so much, Sandy. Always a pleasure. Thank you. Bye now.