

My Child Will Thrive Podcast: Season 3, Episode 4
A Few Lessons About the Power of Neuroplasticity with Dr. Peter Scire

- Tara Hunkin: [00:00](#) This is the My Child Will Thrive podcast and I'm your host Tara Hunkin, Nutritional Therapy practitioner, Certified [Gabs 00:00:06] practitioner, Restorative Wellness practitioner, and mother. I'm thrilled to share with you the latest information, tips, resources and tools to help you on the path to recovery for your child with ADHD, Autism, Sensory Processing Disorder, or learning disabilities. My own experiences with my daughter, combined with as much training as I can get my hands on, research I can dig into, and conferences I can attend have helped me to develop systems and tools for parents like you who feel overwhelmed trying to help their children.
- Tara Hunkin: [00:36](#) So sit back as I share another great topic to help you on your journey.
- Tara Hunkin: [00:40](#) A quick disclaimer before we get started. My Child Will Thrive is not a substitute for working with a qualified health care practitioner. The information provided on this podcast is not intended to diagnose or treat your child. Please consult your health care practitioner before implementing any information or treatments that you have learned about on this podcast. There are many gifted, passionate and knowledgeable practitioners with hundreds if not thousands of hours of study and clinical experience available to help guide you. Part of our goal is to give you the knowledge and tools you need to effectively advocate for your child so that you don't blindly implement each new treatment that comes along.
- Tara Hunkin: [01:18](#) No one knows your child better than you. No one knows your child's history like you do or can better judge what is normal or abnormal for your child. The greatest success in recovery comes from the parent being informed and asking the right questions and making the best decisions for their child in coordination with a team of qualified practitioners in different areas of specialty.
- Tara Hunkin: [01:39](#) Now on with the show.
- Tara Hunkin: [01:44](#) Hey everyone, it's great to be well, here with whoever could show up today. I am excited to be back with Dr. Peter Scire. Dr. Scire has been a repeat lecturer on the Autism ADHD and Sensory Processing Disorder summit with me. I've known him for a number of years now as well in terms of working with my family, and we're gonna just revisit some of the things that he's been working on since we last talked on the summit last year.
- Tara Hunkin: [02:17](#) But before we get started ... So first of all, welcome Dr. Scire.

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- Dr. Peter Scire: [02:20](#) Great to be here. Thank you.
- Tara Hunkin: [02:22](#) Good to have you here. I'm just gonna give everyone that hasn't previously had an opportunity to hear from Dr. Scire a bit of background about who he is and what he's been up to over all the years he's been doing this. He's dedicated his academic and clinical career over the past 15 years to working with complex neurological disorders in both adults and children. He's received his doctorate in chiropractic from Life University as well as extensive post doctoral training in functional neurology with concentrations in childhood developmental disorders, vestibular rehabilitation and brain injury rehabilitation.
- Tara Hunkin: [03:01](#) In addition to his functional neurology training Dr. Scire has amassed thousands of hours of continued education in the areas of functional immunology, functional endocrinology, and advanced concepts in neurochemistry and nutrition over the past decade.
- Tara Hunkin: [03:14](#) Since 2004 Dr. Scire's collaborated with Dr. Robert Melillo, the founder of Brain Balance Centers, and hemispheric integration therapy. After a decade of working with children Dr. Scire established Scire Integrative Health Center in Atlanta, which specializes in complex neurological and metabolic disorders utilizing the latest advancements in neurological rehabilitation and diagnostic testing. And he's a founding member of the International Association of Functional Neurology and Rehabilitation, otherwise known as IAFNR, and he served as the president of IAFNR from 2015 to 2016. And when he's away from his practice on all this stuff, he is a dad to a soon to be 18 year old son [Nicholas 00:03:58] and his 13 year old daughter Emma.
- Tara Hunkin: [04:01](#) Again, welcome back.
- Dr. Peter Scire: [04:03](#) Thanks a lot for having me again. I appreciate it.
- Tara Hunkin: [04:05](#) So let's step right in, you've obviously had a busy ... I think the summit was close to nine months ago, the last time we went live. What have you been up to and what do you see changing in terms of how you're working with patients and the types of cases you've been seeing in the interim?
- Dr. Peter Scire: [04:22](#) Sure. One, I mean, most of what I've been focusing on probably since probably the last three and a half years has really been the young adult population, ranging from ADHD to learning disabilities to Autism. Again, for me, after years of working in

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the younger population one of the things I realized very quickly was that that population was truly underserved, and in going to conferences, having tremendous relationships with colleagues around the functional neurology community and other communities that again, the numbers were going that way where there was just so many cases of children that were coming into adulthood that were still having a lot of neurological deficits that were still manifesting.

Dr. Peter Scire: [05:06](#) And even in the ADHD world or the learning disability world the kids that may have gotten through high school now were getting into colleges and really falling behind because maybe some of the support services they had in their high school or junior high years or they were attending small schools and small classrooms and stuff like that, when they went to the next level things have changed.

Dr. Peter Scire: [05:30](#) So that's kind of where I'm at right now in terms of that. I mean I do dabble with traumatic brain injury, concussion, and I also work with older adults as well, but for right now one of the things I'm really passionate about is really exploring the aspect of can we still change that young adults brain that still had a lot of the symptomatology that they had developmentally from childhood and for whatever reason was not fully addressed. Whether I was just because that there wasn't enough services for that child, or be that therapies they got may have not have been as effective as they were hoping for. But ultimately what I'm interested right now is really trying to show the world that even at 17 through that mid 20 year old range, you can get a lot of therapy done and you can do it in a way where it's a home based model and parents don't have to, like, "How does my kid do this in college?" Or, "How do they do it if they're still at home? How do you get them to do it?"

Dr. Peter Scire: [06:27](#) So that's been something that's been exciting because what I try to do is rather than take a therapeutic approach with them, I take more of a brain optimization approach where, again tie it into more of a performance model as opposed to a therapeutic model.

Tara Hunkin: [06:43](#) Well let's actually ... For those people that aren't as familiar about what the brain's capable of, especially in those later years, so for anybody who's listening with a younger child, this will apply to them as well, only the changes happen more rapidly. But can you explain to people that aren't familiar with it the concept of neuroplasticity and positive neuroplasticity and

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what that means in terms of being able to make improvements with their children?

Dr. Peter Scire: [07:09](#) Sure. And again, we've now known for, gosh, several decades now, the brain has the ability to rewire itself based on optimal stimulation, brain based stimulation, but also can actually create negative plasticity if we're activating loops and that have negative impacts on us because we're constantly activating them. That's the thing is that we now know more [inaudible 00:07:31] into our adult life that we still have the ability to create these neuro pathways. And as you said, now is that the creation of these neuro pathways, as strong as it might have been when they were younger, the thought is that the brain in the early parts of the childhood, has a greater degree of ability to differentiate itself. But one thing that I'm finding more than ever now is that once you assess the young adult and you're able to really get into what areas of the brain that might be underactive, the frequency of how often you do it and the duration of how often you do it can really lead to greater plastic changes than we even thought.

Dr. Peter Scire: [08:06](#) Now I've worked with models where, and I've been exposed to clinical models where we've done an average of three hours of therapy a week or then there's people that are colleagues of mine and others that have patients, even myself that have people come to our practices and do intensives for several days and stuff like that. And can you make neuroplastic changes in those mechanisms? Sure. But the one thing that I've found over the last several years now, is that what if you're able to do that rehab every day? What if you're able to do that rehab every day multiple times a day? Okay?

Dr. Peter Scire: [08:37](#) And again, and that's case by case depending on the degree of deficits that you may see in that particular case. But the one thing I can tell you now is as I'm collecting this data and hoping one day to be able to publish it is that, it's really about the frequency and the duration of it. And maybe if anything, more the frequency of it. And so that's what's got me excited about it because I am working with some 18 and 19 year old young adults that have been probably classified on the moderate end of Autism or on the severe end of Autism, and their parents are just blown away with the changes that they're seeing.

Dr. Peter Scire: [09:10](#) Again, we are doing it in two, three times a day, but how do you do that two or three times a day? Well you're not gonna do it, quote unquote coming to a clinical setting. You know, every day three times a day, it's not financially feasible, it's not logistically

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feasible. So what I've been able to do is because of the advancements in the technology that a lot of these neurological companies have allowed me to create is, ways to be able to do it from a home based model.

Tara Hunkin: [09:38](#) Yeah. And that's a really really important piece, right? Because a lot of times we're talking about things with parents, in particular, whether they're parents of young adults that still need a lot of support or parents of young children. It's the feasibility of actually being able to do a therapy that makes it really exciting, and when you can do it at home and it can be done by the parents and the cost and the time and everything, it's the time just spending doing the therapy makes a big big difference in terms of whether or not it's really feasible for the parents to do.

Dr. Peter Scire: [10:11](#) Yeah because you gotta look at it this way. You have to look at it what drives the care plan? And most instances again, I've been in practice now for 15 years, and early in my career I was exposed to the insurance model and then moved to more of a private pay model, and my whole private practice now has continued on private pay. And the one thing it does is takes the freedom away from, okay, someone telling me how often I can see a patient and stuff like that. But the biggest freedom now being able to do stuff from a home based standpoint because the technology's there to do it, is that that takes away the logistic component. Okay? That again, even in the optimal level, let's say we had healthcare where you could pay for it as long as you wanted to get it done. Still, you're not going to go to a therapy center five days a week or something like that. You're not gonna go multiple times a day to that same therapy center or whatnot. So it takes that obstacle out of the way.

Dr. Peter Scire: [11:07](#) And to me, and what we continue to see and what I hear from many of my colleagues in the functional neurology and rehab space, is that again, the frequency of doing it. You know, I think more than ever we have some of the most greatest advancements in diagnostic assessment and then rehabilitative technology, and in a perfect universe we would want to be able to rehab a patient for an hour in the practice and do it five days a week. But that's not reasonable.

Dr. Peter Scire: [11:35](#) So over the years of working with different principles and different programs, I've developed, I think a model that now says, "Okay, how can we do it on a frequency level, a duration level, and then again, constantly evolving the program as the young adult changes?" Because that's the fun part because as

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you create plasticity, now what was once difficult is now something that's no longer difficult. How do you grow the next layer of the pathways, you're changing that neurological rehab that you're doing.

Dr. Peter Scire: [12:09](#) And so we're still doing a lot of bedside stuff with the patient, but the same time being able to engage that through technology. And that's really, I think really cool.

Tara Hunkin: [12:19](#) Yeah. And maybe what we can do is after we can just sort of go through about how that looks to someone that's working with you and I can talk to my experiences as well. But can you give some examples? So a lot of people won't know or won't have experienced this type of therapy before, working with a functional neurologist. There's a lot of conversations around all the different types of therapies that are out there for neuro rehab being vision therapy or auditory therapy or movement therapy.

Tara Hunkin: [12:50](#) Can you explain to someone who hasn't actually experienced functional neurology before what it is so that they understand how all these things integrate?

Dr. Peter Scire: [12:57](#) Sure well, one, the functional neurology term really grew out of the field of chiropractic neurology that's been around 30 plus years, 35 years, and really was the genesis of Dr. Frank Carrick. And then people like Dr. Melillo and others were the early pioneers of chiropractic neurology. And again, chiropractic neurology was always based on the education and being able to diagnose and assess for neurological disorders, but what made it really different was our approach. And our approach being that we were gonna use brain based therapies.

Dr. Peter Scire: [13:28](#) And then probably about a decade ago IAFNR came in existence and we really kinda switched quote unquote from a chiropractic neurology term to a functional neurology because again, if you're going to an OT, or you're going to a PT, or you're going to let's say a chiropractor, or any type of a body mover, they are doing functional neurology in that space, because again, you are working with the nervous system. So if you're working with the nervous system and your goal is to try to improve the nervous system, well you're trying to improve it functionally. So the functional neurology space really now is a multidisciplinary space of people. And I know IAFNR's made a really good point of including a lot of different people that are doing that.

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- Dr. Peter Scire: [14:09](#) So I think that number one, the functional neurology group is a group that is trying to use brain based rehab, not medications to do that, and then they're using a variety of different ... Whether it's vision training or auditory training or let's say somatosensory applications, whether it's chiropractic adjustments or the exercises that work on the muscle system and stuff like that. So again it's a wide variety of people.
- Dr. Peter Scire: [14:37](#) Now, the functional neurology group that I'm a part of, it is still the part that is either being trained through IAFNR or being trained through the Carrick Institute and stuff like that. So there is a little bit of a differentiation in that relationship, but in general if you are going to a practitioner, they are quote unquote doing functional neurology, it's just who's got some of more of the specializational degrees and training and stuff like that from institutes like IAFNR or Carrick Institute.
- Tara Hunkin: [15:04](#) Yeah. Because I think one of the biggest things that I noticed when I started to work with you was that I saw pieces of what other practitioners had done with us before, so be it in speech, or be it in more in OT, like occupational therapy work and then obviously you'd have a functional medicine approach too, which obviously uses the basis of nutrition as well. So it was integrating all of those things into a comprehensive treatment plan, which can be supported by other things. So I think a lot of people don't realize that they may be doing pieces of this already. Whether they have the full picture or not yet is the question.
- Tara Hunkin: [15:41](#) So-
- Dr. Peter Scire: [15:41](#) Yeah and I think that's a big distinction, because I think that again, from my experience working through a lot of different ages of people, that even working with even adults and you get into working with people that have different neurological disorders in adulthood. Generally they're working through one modality, as opposed to really what I think is the framework of functional neurology is the multi modal aspect of it. Using multiple modalities and knowing for that particular patient more than ever, what is the modality sequence that's going to actually try the changes that you wanna use functionally.
- Dr. Peter Scire: [16:15](#) The other part, I think, about functional neurology is actually really having assessment tools that can measure the cognitive functionality of a patient, the motor functionality of a patient, autonomic activity, looking at sensory activity and stuff like that. So I think that, for myself and for many of my colleagues that

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I've known over the years, number one we try to have the most advanced diagnostic ways to assess the patient. Not only from a bedside neurology exam but also quantifying it through the latest and greatest technology. And then being able to apply our applications because the one thing about functional neurology is that really the applications are somewhat unique to that particular person and being terms of how their brain is wired or has not appropriately wired developmentally that's led to one of the deficits that they may have.

Dr. Peter Scire: [17:08](#) So it is, I think that fingerprint that's unique to that individual patient but definitely the multimodal relationship. So now you take on a multimodal level, incorporating a variety of different brain based applications but then the next thing is, what is the frequency and what is the duration? And for someone who has worked with, I mean I think a lot of children in the past and then a lot of young adults now, it's an end value of one. And it's not they're one size fits all, there's no way to sit there and say, "Okay, what's the length of time?" To say, "Okay we're gonna be from here to here in this time." It's all unique and the neuroplasticity is again, like you said, it's based on epigenetics. It's based on genetics.

Dr. Peter Scire: [17:55](#) You can go down the whole realm of all the lab testing and looking at it as meddation and all these kinda things like that, that are important snips and stuff like that that play a role in this. So you gotta kinda cover all your bases.

Tara Hunkin: [18:09](#) So can you run through maybe a few cases that you've been working on where you can? In the recent past, just to give people an idea of what this looks like when you start working and what type of results you're seeing in some of these young adults that you've been working with in the recent past.

Dr. Peter Scire: [18:24](#) Yeah, I'm excited because I actually had a case that came from actually one of the last summits from summer and that I've been working with and it's really exciting because it's an 18 year old young adult on the spectrum and the father reached out to me and he was really really gung-ho about the topic that we talked about last time, this whole idea about the cerebellum and the cerebellums role in developmental disorders and that cerebellums role in how the brain develops neurologically. And so we've just gone in there and we did an assessment and actually through me being able to walk the adult through the assessment of their particular young adult.

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- Dr. Peter Scire: [19:05](#) And so what was exciting was that he didn't have to get on a plane and come here and stuff like that, I mean he could have very well come to Atlanta and done it, but he was able to go through a series of different assessments that the best way to explain how we did this assessment is that in the brain there's these different parts of the brain and whether it's the frontal lobe or the parietal lobe or the occipital lobe, we get into the brain stem and then we get into the area called the cerebellum. And there's very very easy ways to assess that, that side ways to assess that and being able to look at the integrity of that circuit, how well is it functioning? And then looking at it from one side of the brain versus the other side of the brain in that relationship.
- Dr. Peter Scire: [19:44](#) And then once we go through that assessment, then we were able to determine, okay in this particular case there was a lot of problems in motor coordination, motor timing, motor planning. Problems in eye tracking, difficulties with the vestibular system, so again, it was very interesting for this particular parent because he had gone to a variety of different people and no one had gone through the breadth and depth of this assessment and we had to deal with primitive reflexes and stuff like that.
- Dr. Peter Scire: [20:12](#) So we started taking on the major deficits like the cerebellum, which contributes to balance and motor coordination and motor timing and motor planning. So we just started out doing a lot of cerebellum based rehab. And again, we started simply with trying to master the idea of balancing on one foot. Could he balance on one foot from one side to the other? Could he balance with his eyes closed? Could he balance in a tandem stance where he had one foot in front of the other? Could he then work on balancing on a proprioceptive board and stuff like that.
- Dr. Peter Scire: [20:48](#) And then from there we were able to work on, again, we had other things going on simultaneously. So we had him doing eye movement therapy while he was balancing and stuff like that. So once again, a lot of people are doing proprioceptive based rehab but you multimodal it by adding things like different sound frequencies or music frequencies that may activate one particular part of the temporal lobe as opposed to another part of the temporal lobe. Or doing specific eye movements that may activate one part of the cerebellum versus the other part of the cerebellum.
- Dr. Peter Scire: [21:19](#) So these are things that we can layered on and it was fascinating is I'm hoping that with this fathers permission that

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one day to show a video of where he was at the beginning and where he is now, because where he's at now is astonishing in terms of that he can now get on his very advanced balance board and he can now actually shift the balance board almost like a skateboard and he can move it side to side at the same time he's actually doing very other complex motor activities. And we're getting to the point here soon where we believe we're going to be able to put him on his balance board at the same time he's doing interactive metronome therapy and be able to do that.

Dr. Peter Scire: [21:58](#) And that in itself ... Every week I'm getting weekly updates from the father that, this is getting better and this is getting better. Now a question is, well how does it translate into real day to day life? Well one, they are seeing cognitive changes. Again, he's an 18 year old and the cognitive deficits were very severe, so they are slowly moving functionality wise, but the one thing they were seeing is because we're doing it so often that he's moving in a very linear way cognitively, motor wise. We're using some applications that are also priming his language and developing his language more. At the same time we're doing cerebellum based therapy.

Tara Hunkin: [22:45](#) Yeah, and actually I think that's ... You answered a question that came up, sort of as you were talking there, is that a lot of people don't understand the connection between doing these motor based therapies. So thinking about balancing on a balance board, and that sounds great and we obviously want their motor coordination to improve, but what that means in terms of understanding what that means in terms of the overall cognitive and emotional ... And another time we'll dive into the whole cerebellum thing, because that's your specialty.

Dr. Peter Scire: [23:11](#) Yeah because that's a whole [inaudible 00:23:11], that's a long conversation. At the end of the day, that what parents have to realize is that the cerebellum is setting the basis for all human cognition. So when we see deficits in the cerebellum and we see muscle tone imbalances or we see problems in gait function ... For example, one of the things that came up a while back was I'd asked him, say, "Hey, can you take your son and ask him to draw a clock." And he's like, "Oh yeah, he'll be able to draw a clock." And he was so astonished that he could not draw a clock. And so now after weeks of focusing on different parts of the cerebellum, he's not just drawing a clock, he's now drawing, recently I got a picture of him drawing a train and stuff like that. So his complexity of his drawing has gotten better because we

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started working and focusing on different parts of his cerebellum.

Dr. Peter Scire: [24:03](#) And so I think the major thing for people to understand is that all the research that's coming out right now in the developmental world is that it's about the cerebellum's relationship to the human frontal cortex and the cerebellum's role to other deep structures in the middle part of the brain. And so when we're not rehabbing the cerebellum then we're not gonna see the expression of executive functions or better modulation of limbic control and better modulation in our behavior. And all these things that our parents are wanting for their young child and their young adult.

Dr. Peter Scire: [24:41](#) But the one thing that is exciting in this particular case is that, I mean, this family has spent well into six figures on therapy and different applications, and they were about to throw in the towel, maybe because they had figured that this is the best that we can get him. And now at 18, and we started working with him when he was about 17 and a half, they're saying like, "Wow, we still have a long way to go and we still got a lot of things that we can do and see him changing and growing neurologically."

Dr. Peter Scire: [25:09](#) That's the big thing that I want people to understand, is that just because they've gone into 17 or 18 and maybe you feel like you've exhausted some of the traditional therapies, is that there's more that can be done, and I think we're just barely tapping the tip of the iceberg right now when it comes to understanding neuroplasticity in young adults with developmental disorders.

Tara Hunkin: [25:29](#) Wow. It's an incredibly inspiring message to parents that have tried a lot of things, and at some point you do say, "Am I doing it ... Are we putting them through it?" Because a lot of the therapies and things that people are doing with them are very extensive, expensive, and also not a lot of fun to do, but like you were saying at the very beginning is that you have created a model and there's a way to do this that can make it actually fun for them as opposed to incredibly challenging-

Dr. Peter Scire: [25:57](#) Yeah I think I've taken out two obstacles. I think I've taken out the obstacle of cost, because here's the thing, is that the one thing, and again, for doing this for the years that I've been doing this, and being able to see cases that I worked with when they were really young to now that they're, you know in some instances I have some kids that are as old as my son. And so to

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see where they were and where they are, I know those parents, they would say, "Okay, we're still not where we want to be, but at the same time we know that the interventions that we did then have gotten us to here. Well what else can we do?"

Dr. Peter Scire: [26:29](#) So the question is, how do you take out the cost factor of it? Okay, we're gonna spend tens of thousands of dollars to try to do a therapy for a small amount of time, versus okay how do we do something that is going to be more practical? And then at the same time, something that's engaging and fun. And in this instance this father and son have set up a neurology gym in their garage. And so that's fun. And I know in your basement and stuff like that we created that. And again, it was always about performance.

Dr. Peter Scire: [27:02](#) And so when some of the technology they're getting their hands on and they realize that, "Hey, well this is some of the stuff that pros are using, or lead athletes are using," and stuff like that, it doesn't look like a therapy model, as opposed to like, "Hey I'm trying to train my brain in ways to do it." And when you can ... And some of the technology we have now where we can see preimposed data, to me that's what parents really like. I know the fathers really like, to sit there and say, okay, here was their baseline, and here's where they are now.

Dr. Peter Scire: [27:33](#) And one of the things that I do with all my clients is that they're required to video. And so I have probably several hundreds of hundreds of hours of video of patients that we can see where the young adult was here, and now where they are now, that make it pretty remarkable.

Tara Hunkin: [27:51](#) Yeah. No. It's funny, it's something that I talk about with people all the time, is tracking this stuff is really important for so many different reasons, but part of it is for the motivation to continue and when you know you're doing something right. Because sometimes, like you said, although you're seeing linear progress because of the consistency of what they're doing right now, sometimes the progress is slow, but when you look back to when you started you realize you've come a really long way and you're going the right direction, so that's really important.

Dr. Peter Scire: [28:18](#) Yeah and I think that that's ... you know, so having that constant ... I mean, a lot of times I'm talking to a lot of my clients once a week. Sometimes bi-weekly, it just depends on the case. But again being able to collect that data, collect the video data, then collect the objective data. And then being able to change the degree of activity that they're doing, and that's what's fun. And

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then for me what's exciting too is that every six to nine months or a year I seem to come across a new piece of technology, I'm like, "Ooh I want that little toy, and I wanna add that to my repertoire." And I add it to my repertoire and so for families that I've been working with their young adults, they've been able to basically say, "Okay, help. What's the next little kinky technology you're gonna send me?" And stuff like that. I'm like, "Oh I got this for you now," and they seem to like that.

- Dr. Peter Scire: [29:03](#) And so it's a ... I think we're in the era of that, "Ooh, when's Apple gonna come out with a new iPhone?" And stuff like that. So everybody's looking for an upgrade, so they're like, "Do I get an upgrade neurology wise?" I'm like, "Yeah, I think I got this piece of technology that we may wanna use." And stuff like that, so.
- Tara Hunkin: [29:17](#) Yeah, and then there's always good stuff coming out.
- Tara Hunkin: [29:20](#) We have a question from someone that's watching. Becky's asking, she says her almost 13 year old son has sensory issues plus anxiety and OCD behavior. Can you suggest some calming activities? I've tried to have him do slow breathing exercises but sometimes he gets more upset at me. The only thing that he will do on his own is roll his body around in blankets for a while. How do I get him assessed and find help? I think we have county insurance in Sacramento, California. He has a younger brother that has ADHD behavior and so they end up bothering each other each day. Frustrating and exhausting.
- Tara Hunkin: [29:56](#) And, Becky, we hear you.
- Dr. Peter Scire: [29:58](#) Yeah, and again, I think obviously one you begin to start looking at what you just described there with the rolling in the blanket and stuff like that, a lot of times it's obviously a need for vestibular activation. So I think that first and foremost is being able to drive that vestibular system, drive the motor system. When we look at doing things like cross crawl activities, or even getting them to do jumping on a trampoline or things like that. Some general things that are going to stimulate. And usually when we're using our large muscles and we're using our big muscles if we're doing some jumping jacks or doing something like that, we are going to fire more into the right hemisphere to do that and there's gonna be a relationship of the right hemisphere dampening down some of the limbic activity and the basal ganglia in terms of, that's producing a lot of the excess motor activity.

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- Dr. Peter Scire: [30:49](#) So, I mean that would be some generalities in terms of that, just getting large muscles to move. Because again, a lot of the times in many of these kids is that they'll wanna use screens as a calming tool and stuff like that. But getting large muscle activity is a big thing, and working on core aspects ... There's tons of great practitioners in California to reach out to and stuff like that, I know there's Brain Balance Centers out there as well in California for that younger population to reach out to and stuff like that.
- Dr. Peter Scire: [31:19](#) But those are people that, again, a lot of their therapy is gonna be based on really assessing the vestibular system, assessing the motor tone. In my experience with cases of ADHD or OCD or on the Autism end of it is that they are gonna have more of the low muscle tone, they're gonna probably have the hypo vestibular, they're gonna have under vestibular activation, so they're gonna be craving a lot of vestibular stimulation, so that's why they move rock, they may want to be spun, or they may roll themselves in a blanket and stuff like that as a soothing mechanism. So it's a real sign of generally probably hypo in terms of under activity.
- Dr. Peter Scire: [32:00](#) Sometimes you may catch a hyper activity where now they get any type of movement makes them nausea and stuff like that, so.
- Tara Hunkin: [32:07](#) Yeah. When it comes to sort of gaming those types of activities, because as she mentioned he gets annoyed when she tries to get him to do certain things. So what are some of the techniques or strategies that you use with your patients in clinic or tell your parents to do to get kids more engaged. Kids and the young adults, because actually young adults can a lot of times be the more difficult. They get really stubborn.
- Dr. Peter Scire: [32:31](#) Yeah, I mean, that's the funny thing about it, is we're [crosstalk 00:32:33]. You know and again, they get even more sedentary in their ways and stuff like that. I don't even know if there's any magic to it in terms of ... Because each particular case has been individualized and stuff like that. But no, one of the things is, again for me is always trying to engage them one on one and trying to find out one thing that I think is going to find a way for them to want to do it. I wish I had a perfect answer to sit there and go, "Hey, this is exact exercise that's gonna calm them down," I kinda just try to find the one or two that are gonna do it. That they're willing to try doing and stuff like that and, you know I've gone as far as dancing with adults, back when I was working with kids trying to find a way to like, "Okay copy me,"

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or "Run around me," and stuff like that just to get their large muscles moving in stuff like that.

- Dr. Peter Scire: [33:26](#) So there's not one simple answer to that, I wish I could give that. I would say that the best thing you can do is just try to get ... If the weather's nice get them outside, try to get them engaged in some type of activity that they'll be willing to try and stuff like that.
- Tara Hunkin: [33:43](#) Yeah, I mean, I think some of the suggestions you did give earlier in terms of ... And mini trampolines are always really great if it is a kid that really is sensory seeking that really wants that movement and stuff. And bosu balls and yoga balls and things like that tend to make a big difference. It's more things they can sort of use when they feel good about what they're doing, they're likely gonna do even more of it on their own without you even having to prompt them.
- Tara Hunkin: [34:10](#) And sometimes that I've found with my kids is that it's also just asking them how they're feeling while they're doing that thing so they actually realize that it's making them feel better. Because sometimes they don't realize that that's what's making them feel better, so they don't seek it out on their own.
- Dr. Peter Scire: [34:23](#) Yeah I agree, and like I said, I have different tools where you can, you may wanna have an exercise ball, you may wanna have an indoor trampoline, or you may wanna have a bosu ball or something like that, and just find out one thing that they're gonna gravitate to and then try to use it with them and try to change ... You know sometimes you have to change the stimulus, you have to change the exercise from one second to the next and stuff like that and have that flexibility where you're doing it.
- Dr. Peter Scire: [34:47](#) And again, that's the challenges of working with younger children and stuff like that, but at the same time with the adults is just as challenging because of boredom per se, and so I think that ... Again, there's no one answer, you just have to try to ... But again, the best thing you can do is the more repetitive you are doing the larger muscles, the bigger muscles, you're more going to activate into the right brain, you're gonna activate the right insular cortex, which is gonna give them a more sense of awareness of themselves, their body awareness and stuff like that.
- Dr. Peter Scire: [35:19](#) Again, I do some simple things even with the young adults, is just having them do finger to nose, doing [inaudible 00:35:27]

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things, or simulate they're playing a piano with their hands and stuff like that. Trying to get some type of motor response to change that integration in their brain. Because I've had some young adults that can have some pretty wicked obsessions and compulsions and again, how do you get them off that fixation point? You have to give them some type of sensory trick to change that relationship.

Tara Hunkin: [35:48](#)

Yeah. Absolutely. So you've talked us through one of your recent cases, do you have any other examples of working with young adults that you think would be of interest to the people listening today?

Dr. Peter Scire: [36:00](#)

Yeah, I mean, again, the thing that I want first to say is that what I'm trying to look at is the relationship of how intense the therapy has to be or the performance activities have to be. So one of the things I'm looking at, like for example I have a case that I'm working with where there was a lot of obsession and compulsion and anxiety in this particular case. And again, there are different mechanisms that we can explore for a later time of what is the neurology behind that in terms of what are the pathways that are involved. But the general activation into using large muscle groups and firing into certain regions of the brain that control that inhibition, but to where we're getting it [inaudible 00:36:43] for separations.

Dr. Peter Scire: [36:44](#)

Same thing is that this particular case where they were doing a lot of functional medicine, and they were doing a lot of advanced diagnostics there, but they hadn't really layered in the functional neurology piece of it. And so once we started doing the functional neurology piece of it, it made a bigger impact on everything that we're doing because we were able to start seeing where by doing large motor therapy by asking, in this particular case we were able to do a lot more advanced stuff. We were able to start out by actually balancing on a bosu ball while we were actually tossing a ball back and forth to each other and stuff like that.

Dr. Peter Scire: [37:19](#)

Having the specific technology that allows us to monitor the accuracy of proprioceptive and vestibular movements with the body through a laser that projects on a wall, we were able to incorporate that into some particular therapy there. So in this particular case, this young adult came in and again, anxiety and the OCD really was impacting in the emotional reactivity daily that was really affecting her day to day life, and affecting her interaction with her peers and her parents. And again, when we presented this to her we presented this from a performance

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model and again now got her [inaudible 00:37:56] buy in, and now we're able to do these advanced protocols where, and again, we're constantly seeing the anxiety go down, the emotionality go down.

Dr. Peter Scire: [38:04](#) And the same thing what we've been also able to do is begin to lower some of the dosaging of maybe some of the GABA support that she was getting from a functional medicine level, or even seeing changes in her neurochemistry, to sit there and go, "Okay, guess what, she may not need as much serotonin support as well." So, I mean those things are great in there, but a lot of times I find that those might be just crutches sometimes for the symptoms, as opposed to changing the neuropathways. So being able to impact that, and that's been a great thing, because again, the parents were looking for a non-pharmaceutical approach to dealing with the symptomatology and that's why they obviously went for the functional medicine piece, but there was something else that was missing and so once we went in behind it and really said, "Okay, hey guess what?"

Dr. Peter Scire: [38:53](#) There were some cerebellum symptoms, there were some vestibular symptoms, there were some alterations in ocular motor control and stuff like that. Once we started doing that, that made a big difference and started calming those circuits down to where, okay now, it's normal for us to have some level of anxiety, it's normal for us to get caught on a thought and stuff like that, but not to have this exacerbation of it constantly or that fight or flight response that wants to kick in very quickly and stuff like that. So those are things that we've been able to begin to do and calm that system down. And again, this is another 18, 19 year old patient, and so they were very happy to see that we were able to make those changes in a very quick instance in this particular case, because of where we started from.

Tara Hunkin: [39:40](#) That's amazing, and I think that actually one of the things that that brings up is, from a personal experience too, I can say that doing a lot of obviously nutrition and what would be considered functional medicine style approach for a long time, you sometimes can get stuck in a nutrient therapy cycle because you haven't actually been able to fix the problem.

Tara Hunkin: [40:03](#) Like for example with digestion, I've said this before, digestion just doesn't seem to fix itself, you end up on digestive supports for a really long time without fixing the brain, and the biggest nerve just is not functioning the way it should be. And your

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vagal tone support and as soon as we started doing these types of rehab exercises, it made a massive difference and it allowed us to start stepping away from some of those things, so it's interesting to hear from a different perspective, not just through digestive, but other types of neuro transmitters that are being impacted by doing the rehab as well.

Dr. Peter Scire: [40:34](#) Yeah, because my worry is that in the functional medicine world, and again I'm a part of it, I've trained with some of the icons in the arena, and so my worry is always is are we substituting sometimes that, are we chasing symptoms all the time as opposed to looking at, okay. And this is my bias from a functional neurology model is to sit there and say, "Okay, how much of that symptomatology is related to the lack of connectivity in that particular circuit? And then is the biochemistry gonna have a role? And sure it's gonna have a role, is it gonna probably look exacerbated because of the underdevelopment in those circuitry?"

Dr. Peter Scire: [41:11](#) Because again, at the end of the day, the literature is really clear on what parts of the brain are underdeveloped in these different disorders. And one of the things that we're seeing more now in the literature is we're seeing more and more adults where they're doing brain research on adults now and looking at imaging studies. And that's really exciting because again we're seeing research that comes out and says, "Guess what? An adult with ADHD has underdevelopment in their cerebellum or has underdevelopment in their frontal striatal pathways from their frontal lobe to their basal ganglian," and stuff like that.

Dr. Peter Scire: [41:44](#) So, again, we're not just looking at the research from a childhood perspective, we're looking at it now from an adult perspective. We're looking at, yes do we know that depression and anxiety disorders and neuropsychiatric disorders, is there a role in neuro inflammation, in changes in how the immune response is in the endocrine and in the gut microbiome and all that? Without a doubt. But what I don't want, and one of the things that I'm concerned with, is that we get on these bandwagons a little bit, and some of the icons in this world start just going down this tunnel, and kinda forgetting over here, we have this whole thing called the brain. And we have these different parts, and I can produce just as many studies that show, guess what? Depression, in depression guess what? We have these under activities in the cerebellum or we have under activity in the right frontal lobe, or the left frontal lobe and stuff like that.

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- Dr. Peter Scire: [42:34](#) So you gotta account for that, you can't just sit there and go, "Okay, I'm gonna do a gut microbiome protocol with everybody, and gonna heal the depression or anxiety." I just don't believe in that vacuum. So that's my worry, that ... Not to say that stomachs are bad and all that stuff, but, to say that we can get in that little biopic space and not realize that there are other mechanisms involved. So I think the best thing that everybody should do in whether you suspect that, whether it's your child, or your young adult, or even yourself, is to really get to someone that understands functional neurology, that can do a functional assessment of your brain.
- Dr. Peter Scire: [43:11](#) There's a lot of talented practitioners out there that have been well trained in this art to be able to assess is your frontal lobe working right? You know, the other day, I mean, I accidentally closed my back of my SUV on top of me and for about a day or two I was like, "Ooh, I'm a little loopy." So I stuck myself in front of my technology and did some brain rehab and stuff like that. So you know, I think that that's the thing, you know I think that we have to realize that we have this amazing organ here that is controlling all facets of our physiology. It's bio directional, and I'm just worried, and I know others in my field are worried, that we're not talking enough about the brain controlling all this and understanding that if there's under development in key areas, that again, we can put people on medications, we can put people on the most advanced supplement protocols and stuff like that, and still might not be hitting the mark.
- Tara Hunkin: [44:07](#) Yeah, well I guess the bottom line is that if there's been the impact of negative neuroplasticity, so something didn't develop properly and then it's been sort of repeated over time, if we don't rehab it to correct that when we have the right underlying factors in place so you can fix the biochemistry and the diet and the microbiome and all those things, but you need to actually fix those neural pathways too, otherwise-
- Dr. Peter Scire: [44:30](#) Yeah, because I'm not aware of any particular supplement right now that is gonna change neuroplasticity. Only thing I'm aware of that goes in and changes neuroplasticity is the engagement of the brain through it's sensorium, okay? Through visual stimulation, auditory, tactile, vestibular, the rest of the somatic sensory system, and when you're combining it and when you actually know the ways to combine it for that particular brain and then the specific area of brain, okay? Again, what I want families to understand is that let's move away from the labels, let's move away from ... I think the labels are a great starting

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point to have a conversation, but at the end of the day, let's talk about functionality, let's talk about the functions of the brain.

Dr. Peter Scire: [45:10](#) You know, I tell my patients that I think I'm just a geeky electrician that knows that A these circuits are the circuits in the brain that are related to the right frontal lobe, to the left frontal lobe, the right cerebellum, the left cerebellum, the right brain stem, the left brain stem. Gonna go in there and through a neurological examination, bedside neurological examination, using advanced diagnostic equipment, to be able to say, "Okay, hey, what parts of your brain may not be working as well?" And then we start providing an intervention, some type of rehab intervention to see if we're moving the mark. Are we improving that functionality? Did we improve the vestibular symptomatology by going and activating the frontal lobe? Did we improve executive function? Did we see changes in behavior? Or changes in socialization? And stuff like that.

Dr. Peter Scire: [45:56](#) And so, this is the frontiers, I think that we're seeing more and more because again, the rise of TBIs and our understanding of traumatic brain injury and concussion, we're seeing all the advancements in ... We're understanding more about neuro degeneration and stuff like that. Again, because I work with a large population of neuro degeneration. And again to me it's not just all about fixing their gut microbiome. You gotta go in there and change some of these pathways or try to find what pathways are still viable in that population, and to fire them.

Dr. Peter Scire: [46:26](#) So I think that that's the biggest thing, is that the takeaway for our families is to ... For the young adults is realizing that we're just on the beginning edge of understanding that even when they get to 17, 18, 19 and their early 20s, that if we can get a really good diagnostic assessment then we can begin to build these programs that are unique to their individual expression of their brain relationships and then be able to change. And I continue to hope that as more and more ... As I'm able to work with more of this population, that I can help be part of that conversation and show that we have not just hundreds, but thousands of young adults that are seeing their brain change and grow and be able to grow and be able to get to whatever functional capacity that we get.

Dr. Peter Scire: [47:11](#) I think it's ... You know, to sit there and say that, oh okay once they get to the young adult age, there's nothing we can do, just stop doing everything, stop giving them the vitamins, the minerals and everything, and stop doing therapy, I just think that's a wrong approach. I think that we can do more. And that's

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what I'm excited about, and I'm excited about working with the population of young adults that are in college and working with the ADHD population. A lot of anxiety disorders there, a lot of obsessive compulsive relationships.

Dr. Peter Scire: [47:41](#) And one of the other fascinating things is that I've worked with some of the parents of some of the cases I've worked with because they themselves are noticing that they had ADHD or a learning disability or they have some anxiety, or in depression and then how it's affecting their lives now and stuff like that, and what can they do to do that.

Tara Hunkin: [47:59](#) Yeah. And I think we're gonna have to have another conversation about that [inaudible 00:48:04] too. Because it's a really big topic. And a lot of the parents aren't taking care of themselves because they're obviously focused on their kids.

Dr. Peter Scire: [48:13](#) No and I agree, and one of the things I like about trying to do the program with the young adults is engaging the caregiver to do a lot of the activities with their child, and stuff. Because again, they're able to work hand in hand and some of the things that ... Especially when they're demoing things, some of the applications that some of the caregivers will go, "You want me to do what?" And I'm like, "I want you to do that." And they're like, "I don't know if I can do that." And I'm like "Okay, so we're gonna work on your brain a little bit and get you going so that way you can demo it for your young adult." But it's fun, it's exciting, and I think that that's where again, I hope that more and more practitioners will pick up on the fact that we need to serve this population of young adults. That it's a great degree of young adults that are aging up in that Autism.

Dr. Peter Scire: [48:59](#) These are frontier questions and I think that we can ... You know, thank you for having me so we can have this conversation, let parents out there know that just because their child has gotten to that 17, 18, 19 year old range, or 20 year old range, not to give up, that there's more that we can do and we can work with that.

Dr. Peter Scire: [49:17](#) And I don't know what the timeline is, I don't have a crystal ball, I don't know, is it three months, six months, is it a year? And stuff like that. My goal is to continue just working with individual cases and trying to figure out what are the realistic expectations and how far can we take these young adults and improve their life and stuff like that.

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- Tara Hunkin: [49:36](#) And on that note, you and I have talked about doing this on a more regular basis. So if people have questions please [inaudible 00:49:45] send them in and we'll address them the next time. And I don't know if you have time Dr. Scire, to look at the comments after this that recording [inaudible 00:49:55] onto Facebook so people can ask questions if they're watching it later on.
- Dr. Peter Scire: [50:00](#) Yeah, absolutely, I'll definitely have some time and stuff like that and then for those who wanna reach out to me and stuff like that, they can just email me, at trpscire@scireintegrativehealthcenters and reach out to me and ... Because again, my focus right now is really that younger adult population and really trying to integrate, and I have a practice here in Atlanta where patients can come and see me in Atlanta if they're local or if they wanna fly in. And for those that are out and around the country and I have clients worldwide that were able to do this through distance because I can get the technology in their hands and ship to them and stuff like that. And then be able to control remotely through my e-practice and then stuff like that. So that's really cool with technology these days.
- Dr. Peter Scire: [50:43](#) And it's fun, and I think that that's the thing about it is that from a performance standpoint that we can show ... And my goal is to continually show that we are making changes in these cases.
- Tara Hunkin: [50:54](#) Yeah. And I can always say, as people know, I've worked with you personally, so it's fantastic, it's worth it, and the ability to do it remotely and do most of the work at home really makes a massive difference.
- Dr. Peter Scire: [51:09](#) And I think also in that environment that a lot of times, that even with the young adults, they still need a routine and they like their routines so being able to do it within the confines of their home is great. But I think that also engaging it with their parents or other caregivers, it makes it more fun and again, always trying to change the platform that we're working from in terms of when they are changing and they are improving, what is the more difficult things that we can do to make it even better and more successful?
- Dr. Peter Scire: [51:38](#) And now with a lot of the online technology that's available to be able to measure it and measure the outcomes. And one major piece that I've been trying to incorporate into this is trying to measure a lot of this on a cognitive level because the motor stuff is very black and white. We can measure that, we

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can see that, we can record that though video. Now to be able to have cognitive assessments and then be able to then see how they're changing, that's the next frontier.

Tara Hunkin: [52:02](#) That's wonderful. Well I look forward to having the opportunity to do this again with you [inaudible 00:52:07] sometime soon. We'll make sure we make an announcement on the page and if you aren't on our email list yet, makes sure you sign up at mychildwillthrive.com and we'll makes sure that you get a notification for when we do it again.

Dr. Peter Scire: [52:22](#) Well again, thanks for having me and I look forward to doing this and definitely will come up with some fun topics to talk about.

Tara Hunkin: [52:29](#) Sounds great. Thanks again.

Dr. Peter Scire: [52:32](#) Thanks again.

Tara Hunkin: [52:35](#) So that's a wrap. Thanks for joining me this week on My Child Will Thrive. I'm so passionate about giving you the tools and information you need to help your child recover. And as they say, it takes a village, so join us in the My Child Will Thrive Village Facebook group. Where you can meet like-minded parents and stay up to date on everything we have going on at My Child Will Thrive.

Tara Hunkin: [52:53](#) This is Tara Hunkin, and I'll catch you on the next podcast or over at mychildwillthrive.com.