What Is Your Brain Trying to Tell You About Your Health? Learn With Dr. Ronald J. Swatzyna, PhD Transcript

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Opening on Psychosis and Root Causes

Yeah, it can be and can say high calcium is a one of the 13 reasons why abnormal labs can produce psychosis. And so we just took off her calcium. Guess what? Psychosis went away.

Wow. So, you know, that's why we gotta look deeper and harder. And what's causing these symptoms and not just assume it's a mental deficiency of our patients?

It's not. It's a physiological issue. And a lot of these cases, especially when you have a sudden insight, a sudden onset. But however you take genetic issues and you know, about for a gene, you know, about the comp t gene, you know about all these different genes.

And if they do not have the ability to process folic acid effectively, they can't convert it to metal folate and then they can't get across the blood brain barrier.

And if they can't do that they damn they they're missing norepinephrine dopamine serotonin and melatonin. And they have issues with anxiety and depression.

And, mood stability and sleep. Welcome to Doctor Talks, the podcast where every episode leads to a healthier you. Join us as we navigate the world of optimal health, uncovering groundbreaking strategies to conquer chronic disease.

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Get ready to unlock the secrets of lifelong health and vitality.

Podcast Introduction and Guest Welcome

This is Doctor Talks, real talk from real doctors on the issues that matter to you most. Well, thank you so much for taking the time to do this. I really can't tell you how appreciative I am of this.

My like, I love doing these kind of things. We've had our discussions with Docker run for quite a while and, and I do a lot of, these zoom meetings and podcasts and stuff like that.

So this is just enjoyable. That's great. That's great. Okay. Well, I guess, we should just kind of jump right in. So your work integrates advanced methods like quantitative EEG analysis, neurofeedback, and photo bio modulation.

Can you explain how these approaches work individually and together to optimize brain performance? Sure. It's, It's been a long road, to get to the point where I am and understanding what's causing, people's issues.

And, we just recently submitted a paper, to clinical EEG and Neuroscience Journal, about, a pattern we found, in the EEG biomarker, we think for neuroinflammation.

Neuroinflammation is, a tough cookie because, even the most invasive methods for determining, such as spinal taps still have a 15% false negative rate.

So you can't really rule it out if it comes back negative. The only true way to do it is biopsy. And nobody's going to

let you drill a hole in their brain in order to see if their brains inflamed.

However, I've got a doctor at Baylor who, inserts electrodes into people's brains for intractable epilepsy. And I said in those he inserts 40 electrodes, and I say, then you extract those electrodes at some time, he said, yeah, I said, and they come out with brain matter on them.

He said, yes. I said, I've got a study we can do if you can just 40 of those, we and we'll do that. He does pre and post EEG so we could determine if we got that biomarker.

EEG, Neuroinflammation, and Brain Biomarkers

So neuroinflammation underlies so many people's anxiety panic attacks. And this is something we haven't been addressing even in the neurofeedback field.

We've known about this pattern and thought it was an EEG phenotype. But now I think it's really related to neuroinflammation. The reason I say that is because I do a lot of brain injury, patients with two different centers throughout the country, not counting mind and, the prevalence rate in the general population in my study of 233 healthy was 30%.

The prevalence rate and the traumatic brain injury population for, litigation cases. These are going to court. So their solid cases is 80%. So and then the locations in the temple lobe tell me that the only projections inside the scarring that in the temporal lobe.

And that is where you're going to get the bruising. So that's where you're going to get the more inflammation. So it's statistically we proved it. So it's, something we submitted.

But I think this is a big breakthrough because what really works well on reducing inflammation. Well, hyperbaric oxygen, your specialty photo modulation.

Mine. They both work on the mitochondria health to improve the health and increase the micro voltage. The actual power coming out of the brain. And so this allows for us for being able to actually determine the intensity of it.

We can, rate it and then watch it go down over time. And then when we combine this with, neurofeedback, it's, it's almost like a magical combination to reduce the inflammation and rewire the brain.

So, that's how they two go together. And whether it's photo modulation or hyperbaric oxygen or all three counting neurofeedback, I think it's the wave of the future.

Yeah. That's great. Have you done any, work with, or used methylene blue in your practice along with the photo bio modulation? I have not. Okay. I've heard of it, but I haven't integrated that yet.

I do carry the earth or molecular products, so I, I it's not outside my area to, to integrate something else. There's this product called KB 220 that I did a study on when I was in Bahrain, setting up a program for the American Nation Hospital.

There. And, saw a tremendous change. And within an hour of administration, positive change, which we did publish it. So, with the, the, the blue may be the next wave, but I'd like to study it more and see, like to test anything.

What it is due to the brain. Yeah, yeah. Or if you've got some cases you want to work with on me, I'm game for that. This game. Okay. So, with all these, you know, range of tools at your disposal, how do you tailor treatments, and treatment plans for patients with complex neurological or psychiatric conditions?

Well, that's the that's the drive that I've had for the past 20 years is really trying to figure out what's causing the underlying the symptoms that we presented with, I don't care what we call it.

I think it's most important that we get to the source of what where the problems are and, I do this with a wide variety of methods, including I always ask for anybody.

Most current labs, those are critical. And, I use a psychiatrist. Know that, you know, sometimes I feel that we're treating physiological issues that can be determined on abnormal labs with psychiatric medications, and it just doesn't work.

And so, this is why we we really need to be focused on what's causing a person's issues. And I think that the in the long run, you know, the treatment planning that's done is very important to take into consideration the whole individual, their physiological functioning, their neurological functioning.

Where are the abnormalities? Usually when I do an EEG and I've got two neurologists that, a Black Colleges board certified in epileptic and, and, I like to say and several ography we look for any, indication of encephalopathy, which is just a abnormally, brain issue, which can be from a toxin, could be from a metabolic issue, or can be from a, hypoxic issue, as in, those that we have with, little children with cancer and adenoids so large they're not getting enough oxygen to the brain at night.

So all of these things we need to look at first. So when I look at an individual, what I'm looking for is what's causing the problems. Here's the presenting issues, okay?

And let's let's go down the path. First let's rule out medical etiology which is required by the DSM. Before we make a diagnosis we have to rule out medical etiology.

Cause and then then the next thing I'll look at is the medications are on. Because as we know with most people, I get into my practice referred in or polypharmacy.

They're they've tried one try to try three. They're usually on 3 or 4 medications. It's not working. And nobody ever thinks to study. Why isn't it working?

And this is what I've dedicated the last ten years of my research to, is trying to figure out why medications fail. And I think that's a very important part.

So when I'm setting up a treatment plan for somebody, it's specific to that individual. What we find, what the, in virologists say about the EEG, is it above the neck or is it below the neck?

We can determine that an EEG is kind of cool. So we need to start looking that direction.

Methylene Blue, KB 220, and Treatment Tailoring

So when I get in a case, I don't know where we're going with until I look at the EEG, until we get a reports back, and then we can go from that point and tailor to the specifically to the individual.

And sometimes we hold everything up, especially in a regard of and several ofthe what we've got to figure out what's causing, the brain not to be able to be supported by the body.

And we go chase that those rabbits and can we just describe for people who don't know, like what exactly is a quantitative EEG? What does that look like and what kind of information can you get from that?

Well, people make a big deal in my industry about quantitative EEG and what that is, is you take the data you collect from the EEG, you digitize it, and then you run it against a normative database and you get how many standard deviation from the mean does it appear.

And that is the fallacies. I did a whole study on, the habits of because people are making a big deal about this and I tell them it if you don't see it in the raw EEG, it doesn't exist in the brain maps.

Look at all this beta we have in the temporal lobe. They say in all this betas. What that is about is muscle tension. Your jaw, jaw tension from, you know, maybe gritting their teeth at night or we have all this delta in the frontal lobes again, that's probably just eye movement, but you can't look at the brain maps and take them at face value.

If you don't know how to look at the patterns in the EEG and say, yes, there it is, I can quantify it now. So the basically the best part of the Q EEG is between treatment.

You know, I start this treatment, I finish this treatment, I do another brain map. Now we can quantitatively see how it's changed. But it's without the raw EEG, without the pattern recognition it's absolutely worthless.

And now these are automated systems that are out there. They do this for doctors. And there's a lot of automated systems out there. There are automatically, artifacts, that auto artifacting, meaning they strip everything but the background signal out.

But in the case of isolated epileptic form discharges, which is seizure activity, it's isolated, and it would be averaged out or isolated out. So you'd never know that major problem you got with that brain is that it's misfiring in this one spot that you need to be looking at.

And if it's severe enough and the behavior is matched, you need an anticonvulsant. So that's why I say everybody's making a big deal about EEG. And I like, like brain mapping, but it has its limited purpose.

If you don't understand what the original issues are in the EEG that we need to be looking at. Right, right. And so when somebody comes in for a brain map, they're getting like a, a skull cap put on with electrode gel through it.

And it's tracing the brain, the electrical activity, kind of like, you know, check it on the EKG on your heart. Exactly. It's in it's an EKG of the brain.

And, it's it's pretty consistent, but it gives us a lot of information, and we there's only a limited number of EEG abnormalities that neurology will report.

I'm actually doing studies for one neurologist because he found out of my skill set that he's signing off on it. So, you know, I just love to look at these EKGs and see what's sticking out, what's abnormal.

And so this is the most important thing. It's an easy procedure. It takes about an hour from the time they sit down to the I tell they walk out and I do that what we call a routine EEG, which is ten minutes, which is 20 minutes of collected data split between the eyes open and eyes closed.

It's artifact free as possible. So I do 11 or 12 minutes. Sometimes I kids, I have to do 15 to get some good data. And and then that is the minimum that we need in order to fit that diagnostic.

EEG, collection, which is A95816 CPT code and put it in as a routine EEG. Now, longer EEGs 2470 two hour EEG definitely can reveal more sleep deprived EEG can reveal more.

But I feel like when I'm looking at an EEG, if I've only got 22 to 25 minutes of collected data and I see something abnormal popping up in it, then is serious enough to consider medication like an anticonvulsant.

If it's seizure activity, you know, so it's it's kind of like a, a screening tool that we don't want to over prescribe medications and we don't want to prescribe either.

But we least need to target it. Got it, got it. So what types of conditions are best suited for the methodologies you employ? Are there specific disorders or symptoms that respond exceptionally well?

Well, brain injury obviously is one of the big areas because, when part of the brain is injured, that part slows down and disconnects itself from the rest of the functioning of the brain.

And you've got to speed that back up to tie it in and make it functional again. The brain wants to heal itself, it wants to reprogram and it will, if you get passionate about after a brain injury about something that brain is sitting there just really waiting to be rewired.

And I think that's where my high school concussions that took me out of college my first semester. It sent me to Vietnam instead, really paid off because when I got into military, I got passionate about certain things.

And I think that's when the imprinting happened and I got it. Excellent. It from the person who had no executive functioning skills to them, outstanding executive functioning skills.

I was taught military. It's just the way the brain is. It's ready for the programing and we need to take advantage of that opportunity. When the brain has been injured or we've had a stroke.

I do a lot of work with stroke people right now. I do a lot of work with autistic spectrum disorder. I think that's a wonderful population. In fact, I think our greatest miraculous healings have occurred.

If you ask what you want to call it on these nonverbal autistic spectrum children, my gosh, when in six weeks I can start a kid from no way language to asking me how my day went, it's just blows my mind.

I'm just freaked out. Yeah, of course you get you get people with traditional ADHD and, you know, they're pretty sharp anyway, but they just you know, you're not going to see much change.

But when you see somebody coming from a very far, far away from healthy to a very functional state, it makes a big difference in everybody's lives. That's awesome.

That's awesome. On average, how long the patients undergoing treatment and, how soon do they typically start noticing improvements? Well, that's that's a big deal.

I, I base everything I do on my success rate. I mean, I want to be successful, so I don't start everybody into neurofeedback treatment. For instance, I may have to hold up and say, I think something's up with this guy's gut and send him to functional medicine docs, which I love those guys.

Those are wonderful doctors to work with. And then they go chase down gut issues or they go chase down toxic issues, and I can't. I'm not an MD. I can't order that stuff.

But these guys will work with me and they chase it down. So that's that's the phenomenal part about that. The, the sessions it takes are individual. But here's what I do.

What Quantitative EEG Can and Cannot Show

I put I tell everybody we're going to schedule 40 sessions in neurofeedback, whether it's intensive in two weeks and do double sessions five days a week or whether it's two times a week minimum for, you know, ten weeks to get us 20 sessions and then we'll reevaluate, do another, what I call mini Q it's about half the cost, and it's a good way to determine, where I need to set the next set of protocols and see what we've changed.

I really love big electrical change, but that's because I'm a scientist. I would it doesn't matter. What matters the most is that I'm improving the life of the person that's coming in.

And I've seen tiny little electrical changing, great gains by the individual. I've seen great gains. I've seen great gains on the electrical activity and very little change in the individual.

Usually tell me it's between 5 and 10 sessions. You should be able to be saying you notice something different. Most people notice something different when they the first five by session 20.

If we've got absolutely no gains made, we've missed something. We've missed a toxin, we missed something in

there, something is preventing this from, responding normally.

And I did I did a 76 year old female, sent to me by her, Doctor Baxter. Montgomery's an excellent cardiologist, and he sent her to me. And within ten sessions, you know, 20 sessions, we did intensive work, five days a week for two weeks.

We we doubled her output on her micro voltage. So the power coming out of her mitochondria had doubled. And she had increased the cycle per second, which gives her about five more years of cognitive functioning before she goes back into the state where she was.

And then I did this 73 year old retired urologist, and we did the same thing with him. And he actually went backwards. Yeah. And it's like, oh, now this is not supposed to happen.

I'm usually seeing it go the opposite direction. And so to him who's going back up to Chicago and going to rush, I got some ideas. I think we've missed lead poisoning because in Chicago, 1984 was the first year that they stopped putting in lead pipes.

And he's been in his same house since 1970. And so it's got all that old stuff. And if we don't get the lead out and fix the brain. And so I think that nobody's ever tested him for lead poisoning.

It's always families got Alzheimer's and dementia big time which led this toxicity can do that. So it's just like I really think that's what it is. We've missed something.

And you know, I, I would love to have found my biggest gripe right now with the medical industry and with insurance is that they won't pay for functional medicine testing.

Yeah, it won't pay for toxicology. They won't pay for gut testing. And I think the process when especially on refractory cases that failed multiple attempts of medication, we need to be testing for that.

We need to be seen what could be causing these symptoms. And don't just think it's a failing of this personality of this individual. Right. Yeah, exactly. Exactly. Do that.

Do the tests that we know are effective and will give us the information we need. All right. So, what metrics or feedback do you use to measure the success of a treatment plan.

Is it is it just the the behavioral outcomes or are you measuring the EEG periodically? Yeah, I do every 20 sessions. I do take, an opportunity to measure and see where we were, where we got.

And statistically I can see if we've improved or not in the electrical activity. And I do a questionnaire that I send out. It's, 296 question questionnaire on the internet based so that they can do it at home.

And it covers 46 different different diagnostic categories. And it comes back printed houses, beautiful set of brain maps based on their answers. So I've got to line up the brain maps with the electrical brain maps with the brain maps I get from their answers.

And when they line up, I've got a target. I can I can go after. For instance, you wouldn't want to if I went into a novice neurofeedback practitioner.

They did a QED on me EEG. They would find out this leg posterior temporal lobe is really messed up. Well, it's old head injury from multiple concussions playing football in high school.

It's always going to look a typical I shouldn't be able to speak. I should be able to write. I'm a published author or public speaker. Don't touch that.

Part of my brain is wired around it. It looks atypical, but it's totally functional. So that's the most important part. This

don't create something that's been maybe rewired atypically and it's totally functional.

So that's why I say I've got to match the person's brain maps that they create compared to my electro maps. And when the two have something we can work on, I can go there.

There's about 6% of the population that has actually reversed hemispheres. So language is on the opposite side of the brain. Not good. Don't do preset protocols and thinking because they have language issues on the left.

You know, check 4 to 6% of the time is on the right. Yeah. Have to know this. Right? Right. And so with that questionnaire I'm able to determine which side of the brain has language.

And that's an important piece. So it's a reverse hemisphere. It changes everything. That's great. That's great. Can you share any particularly notable case studies or outcomes here?

We had this one case last year. I love these case studies because I got tons of, six year old boy referred to me from, his therapist because she knew the work I did.

He was got kicked out of two kindergartens, biting kids, biting teachers. He was a little rabid dog. And the onset came in, you know, like when they first started with him.

But it got worse and worse. And so. Right, as they said, they sent him to me. I said, please let me take a look at his brain before you put him on any psychotic.

They said to me, I did the EEG and it came back with diffuse encephalopathy, possibly toxic metabolic or hypoxic. So I got this wonderful pediatric neurologist called Melissa Jones, which you probably know.

Yes, yes. And Melissa's because of me.

Brain Injury, Autism, and Treatment Timelines

She says I, she blames me for getting here to be an integrative pediatric neurologist because two years more training after I came up with some of this stuff, she said that wasn't in my training.

Yeah. And so, I sent her to him and I said, I really think it's a toxin. Well, I don't it's just this the look of it reminds me of something very toxic.

And I had to spend excessive beta, which is our, you know, tool for either toxic issues or metabolic issues. And so she ran the test, she called me up, and she said, well, Ron, we've got an abnormal amount of, bad gut bacteria.

But what's most interesting is we have toxic levels of roundup in his brain. The weed killer, the glyphosate. Yeah, yeah. They spray this on their backyards to keep their backyards nice and clean.

And the kids go out there barefoot. And what the biggest sell for is on the body or in the soles of the feet. Sucked it up in this kid's brain, and he couldn't.

He laid it out, so he was toxic. What would have been the treatment? And I'm asking you from your perspective, he comes in, you put him on a ace anti-psychotic. What do you do next?

If you had not done a good assessment of the toxicity levels in this kid, he would have been out of it. That treatment would have been terrible. He'd probably have been in jail by the time he hit high school.

He would have been toxic on the, psych meds. In addition to the glyphosate, and he would have been just getting worse. And then you'd be managing one symptom with another medication and then another medication, and it would have only true.

Totally true. Yeah. 15% of children have encephalopathy. And my big study of 1233, I had another case, two boys, totally ADHD, little skinny kids, one six year old, one eight year old.

The eight year old's parents had tried a amount of stimulant and it had terrible reaction. The other mother that was a six year old mother, the six year old had actually taken his, had seen me present in a conference and she said, why don't we do the EEG before we put him on medications?

I said, oh my God, that's a brilliant idea. Yes, yes, I have to relook. Yeah. I wish all psychiatrists would refer their their pediatric patients to something like they do that exactly.

So I did the EEG. Both of them came back with encephalopathy, possibly metabolic, toxic or hypoxic. And so I went I got go, I got a checklist I go through because I and now the questions to ask and ask questions.

And both of them seem to have sleep issues. And so I sent these both these kids off to a sleep lab to rule out chronic obstructive sleep apnea. And sure enough, they were both only setting at night at about 92 or 90%, and that was preventing the normal maturation of their brain.

So the reason they were acting so young and had such ADHD symptoms was because they're not getting good quality sleep at night. And so I, send them off to this one.

And, endocrinologist I and I, what do you call those docs that do the ear, nose and throat ents? Yeah, yeah. And he removed their, tonsils and androids.

And I did three months follow up and their brains had sped up to normal speed in three months. ADHD symptoms going away. You can't treat chronic obstructive sleep apnea from tonsils.

And that noise with the stimulant, right? Yeah. Yeah. That's not going to work. It's not going to work. But were they, correctly diagnosed with ADHD? Yes.

The collection of symptoms we used to diagnose correctly identify the ADHD, but not the source of what was causing the problem. Yeah, yeah. And I had two.

I had one, child that I found with Hashimoto's thyroiditis that same pattern. Yeah. The family that checked it, the kid had it. You need you need to get your thyroid supported.

You don't need to be on a psychiatric medication. Yeah. And so I had this, I do studies for about 30 centers throughout the country. And I got this one study and it was 63 year old female that was went psychotic.

Well, I spent four years, three months in a day in a psychiatric hospital as a running the psych unit. And you just don't go nuts at 63 years old, it doesn't happen.

Yeah, that's all I said. And I got the EEG and it wasn't quiet. And several of these, but something was off and I said, can you give me a copy of her bloodwork?

She said, yeah, I said, is is as extensive as you can. And she did. And it came back with high calcium osteoporosis taking. She couldn't process it. Her enzymes, her liver weren't quite right for it.

And so she was on super high doses for her, you know, able to process calcium. Yeah. And calcium high calcium is a one of the 13 reasons why abnormal labs can produce psychosis.

And so we just took off her calcium. Guess what. Psychosis went away. Wow. So you know that's why we gotta look deeper and harder. And what's causing these symptoms and not just assume it's a mental deficiency of our patients?

It's not. It's a physiological issue. And a lot of these cases, especially when you have sudden insight, a sudden

onset. But however you take genetic issues and you know about the MTF or gene, you know about the comp t gene, you know about all these different genes.

And if they do not have the ability to process folic acid effectively, they can't convert it to metal folate, and then they can't get across the blood brain barrier.

And if they can't do that, they damn they they're missing norepinephrine dopamine serotonin and melatonin. And they have issues with anxiety and depression and, mood stability and sleep.

Yeah. Classic person right there. That's why you guys, when you came up with starting with Declan, was so genius. Yes. Let's get that into their system because they can use that for this specific gene that affects about 30% of the population out there.

Yes, yes it does. And so those are the yeah. Go ahead. The cases just go on and on. Over the past 20 years that I've come across and, we had a lady 55 year old female that presented, to me with over a three month period.

She started dropping things, had word finding issues, had balance issues, had headaches coming on and had lost the ability to sing.

Measuring Progress and Matching Brain Maps

She sings beautifully. And so I said, that's interesting. So we did the study and it came back with this really unique pattern called TMZ. Tempo. Minor slow and sharp activity most likely correlated with cerebrovascular, insufficiency.

Okay, that makes sense. So, we had an MRI done, and the MRI came back negative. And then a neurologist, one center for conversion testing, you know how they are.

And, I said, no, I know this person personally. It's not that I need an MRI. I want to see the vascular system of a brain, not just the imaging. Right.

I had to go through four neurologists before they finally one of them said, okay, Ron, we'll do an MRI. And if we find something, we'll do a paper on it.

And I think was just humoring me because he was a friend of my sailing buddies. And so we did that, and he came back and he said, Ron, we have to get your patient in the hospital.

Saint Luke's within the next 2 or 3 days. Looks like she's got a seven millimeter aneurysm and a pair of crying node area right behind her left eye, right where I said it would be.

And it's, turned out to be a nine millimeter fusiform aneurysm. They've never seen one on anything but autopsy. And, she was when within months of rupturing.

And she would have been dead three minutes, and they went in through the femoral artery or behind her left eye and put us, stand in three coils and another stent over the place and kill it.

I have repeated this thing multiple times with different patients, but our reason I got so committed to this is that patient was my wife. So she's my wife today because I wouldn't let it go that this, abnormal finding in the EEG did work for cerebrovascular issues.

I've got a good friend of mine that, is a sailing buddy, and, he came in with the same dizziness, vertigo, lack of energy, everything else. And I said, and we came up with the finding TMZ.

And then two years ago, I said, it has got to be either the pump, which is the heart, the vessels going to the brain, or it's got to be in the brain. And he said, well, my heart's good.

I just had an EKG and everything else. I said, okay. So he went all through andrology, wrapped the neurology poopoo on what I said about that insufficiency.

And even though it's in the literature, we've got the studies with cited and everything else but most the biggest complaint I have with medical doctors, pardon me for saying this, that's all right, is that they stop reading research when they get out of med school.

Yeah. And you if you're not today, research is just fast growing, growing, growing. If you're not there reading it almost weekly, you're missing it. Yeah.

So I get a picture from him the day before Thanksgiving. He's in the hospital. And so finally he browbeat a career cardiologist into and into doing a spit stress test.

Chemical stress test. Yeah. 90% blockage. They going to do two stance in his heart opening back up. And guess what. Symptoms are all going away. It has to be the heart the vessels going to the brain.

Or it has to be in the brain. And so the vessels going to the brain I was doing a presentation that the brain injury conference for a bunch of attorneys, and I found out something really phenomenal from a bunch of chiropractors, this one particular chiropractor, they're really good.

Do you know that in accidents, major, vehicle accidents, when you get whiplash, there's a curvature in the neck called lordosis, and that can be straightened in a severe whiplash.

Yeah. And as you as a rubber band stretches, it gets skinnier. Yeah. As the carotid arteries stretch, they get skinnier, and you reduce your blood flow to the brain.

Chiropractors can put this lordosis back in, but you got there's a, DMX. Digital motor x ray it stands for. And they actually do this live x ray and show that entire thing.

They could come up with diagnosis and put the curvature back in. Pretty phenomenal. But it can count for all these people have accidents. And then there have balance issues of memory issues and they're fainting in there.

I mean it's just amazing how this stuff is connected, but it has to do with blood flow to the brain. Either has to be the pump the vessels go into the brain or the brain, and we've never missed yet in that diagnosis with coming up with what?

Where we can go to help a person with these atypical issues that have a sudden onset. Yeah. You know, I was before the wreck and after the wreck on this way.

Okay. We've got a sigmoid. That's that's fascinating. So, do any of the treatments you offer, the quantitative EEG, the neurofeedback, do you get insurance covering any of these procedures?

Well, in the state of Texas, they've identified three more in the federal government and the FDA. They've identified three areas of intervention that should be covered, which is substance abuse disorder, which is considered a head injury, traumatic brain injury, and ADHD.

The three things that should be covered by insurance in the state of Texas. In 2009, they passed House Bill 1919 that said that told every insurance company from the state of Texas it could be Blue Cross Blue Shield of Louisiana, but from the state of Texas, they could not exclude neurofeedback for the treatment of brain injury, acquired brain injury.

Anything after death, including stroke, traumatic brain injury, including the substance abuse. And guess what? Unless you fight them and take them to the dam.

Excuse me, take them to take them to the court and try to, you know, get the court to make them do their job.

They're going to deny complete denial on what's supposed to be covered, even though ADHD kids had abuse, substance abuse and, brain injury should be covered by the research that's out there.

They still not covered it. So frustrated with insurance right now. This is the big bone I have to pick with them right now, because I'm not going to take it chance because it's not worth my fight.

Case Studies: Toxicity, Sleep Apnea, and Psychosis

And then the fight. Yeah. The reason why they you look at what happened to the, CEO of United from a denied a bunch of claims of somebody. So there's a whole group of people very angry as you can see, about the way the health care company does this.

And it's people that are totally not medical doctors in a lot of cases deny these claims. And that's why that's totally wrong. You as a psychiatrist, you need to be able to say what your patient needs, not some goofball that's hired by them.

That's their job. Is to keep from paying claims. Right? Right. And just to remind you, I'm not a psychiatrist. I'm a functional medicine doctor. Sorry.

I'm sorry. I thought you were. No. Well, I think you're one of the best functional medicine doctors I know. Thank you. Thank you. So, yeah, it is frustrating when there's a treatment that's that's very noninvasive.

And that's non pharmacologic and effective. So effective. And yet they're just denying it because you know they'll make up whatever reason. But it's yeah we're here.

Here's what I'm working on right now that that the world psychiatry which is the journal which is the top psychiatry journal in the world, came out with a paper in 2022 and said that in the past 50 years, we've had a they did a meta analysis of all the meta analysis, and they found that psychiatric medication does not work either.

Does psychological interventions work or they're just not efficacious? Yeah. The paper that was written. And so when this paper is written in they they say we need a paradigm change.

Well, this was my impetus to, to present why we need to be doing EEGs on all of those cases that failed, that failed multiple attempts of medication or refractory cases because we identified there's only four reasons for all medication failure, and it's one of my four, which is one had several of the isolated epileptic form discharges, the spending exacerbated, which is the inflammation and the focus line, which is could be brain injury or some abnormal fall or something.

And so at that point in time, I was going through some cancer treatment myself, and I was not happy with my MD Anderson cancer doc, who is an MD, the brilliant man at explaining my abnormal labs.

I brought him a body. They had perfect labs. He put me through chemo, radiation, come out the other side. My labs are totally messed up, right? But he didn't.

He just blew off a bunch of the stuff. And so I I've got a research team and I said, okay, team, here's what I want you to do. Look up every abnormal high and every abnormal low lab you can find.

Tell me what the physical symptoms are, the psychological presentation, the likely causes, and the appropriate EMT referral. And so we built this table.

It took about a year to get this thing built. And we're still working on different things like toxicology and, psychiatric medications because psychiatric medications are supposed to be doing annual labs on anticonvulsants.

Any, psychotics lithium and, all the substance abuse drugs, but they're not doing it. And if they do do it, what do they know? Which organ messed up? Which lab because of their medication they're using?

We know Risperdal. They antipsychotic men have gynecomastia. Boys start growing boobs. Not cool. But most everybody knows about that one, but not the rest of the drugs.

And so they put this together for me. And I'm putting together a program right now. And I got the website and I got the, I've got the URL explained my Lipscomb, because we're going to be offering this to any doc that wants to enter this in or any patient that wants to enter this, and all your highs and all your lows hit enter, pay a small fee, and I'll come out presented with this information.

If we can get this in the lab. Core or quest, it will be great because then it puts it back to the patient that says, okay, here's the likely causes of your abnormal labs.

Here's the likely doctor you need to talk to about it, because right now, the different specialties aren't talking to each other. Yeah. You're stuck. Oh yeah.

I want functional medicine docs like you to be funded by insurance, because it's totally nuts that they do not fund you guys, and they won't pay for functional medicine testing once they get the original testing done.

That's all they'll pay for. And that's ridiculous. You guys are the best in the world out there for, determining what's causing a person's symptoms and how to treat it.

So I think and that's my soapbox, I like to get on right now. So I'm working with machine learning, artificial intelligence right now to make this program super.

Yeah. And then we're going to use we're going to collect all the data and put it out there for open access for research, de-identified data because we're collecting hair color, eye color, culture, gender, everything that we need to do to allow people to when we get to large and large and large data sets coming in there, that data is going to be available for research purposes.

Yeah. Oh, that would be great. That sounds really great. So so, your personal experiences with traumatic brain injury and PTSD seem to have deeply influenced your work.

How did these experiences, how have they shaped your approach to, treatment and research? Well, being a Vietnam veteran firefighter for 20 years, commercial diver, all this stuff has led me down a path that's different from most people because I don't look at anything from tight little, little eyeglasses like this.

I'm looking at it broadly. And and as a firefighter, I used to have to come into an unconscious person or an infant that couldn't talk to you, and within minutes come up with some way we could save this person's life.

So that was my clue. What are the clues? We're where are we and what's the house look like? Well, you know, I'm constantly asking questions. What what what? You know, what could explain this.

And so that has really helped me look at this stuff differently. My background with, physics, for instance, I love physics. I think it helps us so much in our field.

Remember when intuitive came out, the, ADHD medication and stimulant medication for children? Well, intuitive was the, an old Visine, which was not a very good blood pressure medication.

But when it came out, I was at one of the drug rap meetings because I like going to those and drinking their nice wine and eating a good food and have.

I'm usually the only PhD there because I'm the only one mess with medication. And, we had this presentation about this new alpha two agonist for ADHD.

And so at the end of the presentation, this old pediatric pediatrician stood up and he said, I have one question. How do you get from a blood pressure medication in an adult to an ADHD medication for a child?

And so the medical doctor got that presented, got up there and started talking about the chemistry and this alpha two agonist and everything else. He said, no, you don't understand my question.

I need to be explain this to parents where a blood pressure medication for an adult is now medication for a child, ADHD. And so these other baby doctors, these new newly doctor residents who just got out of medical school or something, he got up there, took off on a similar course, and he shot him down.

And, Tiffany's a well, I don't know if you know Tiffany, one of the drug reps. And she said, well, we'll talk to our medical director and we'll try to get you an answer.

I said, Tiffany, I might have a thought on that if we consider that we've been told for years that ADHD is a problem with poor perfusion to the frontal lobes, poor blood flow and far out in a certain subset, and that if we know Boyle's law approach, the inverse relationship between pressure and volume.

Therefore, we poor perfusion, we have lower volume, which means we have higher pressure. If we put a blood pressure medication on, it's going to vessel, dilate the frontal lobes and bring in more blood volume, which is going to lower the pressure.

And I think that's why it works, he said. Good answer. I said, I might have a clue if that's what they were thinking. I think that makes logical sense to me.

Fast forward to December 2nd years ago, a paper came out for Covid brain fog. The only patient that they came up with to treat Covid brain fog, which is neuroinflammation, they said, or inflammation is gone for same plus in AC.

I was justified. We were right. We've been doing it since 2009 and seem to work on this pattern, but I had no clue that this was inflammation. I just thought it worked on this pattern.

So that's where my brain goes, because I've got this history buried, history across all these, different jobs that I've done. And you got to understand physics, if you understand the functioning of the brain with blood flow.

Insurance Barriers and Functional Medicine Advocacy

My wife's aneurysm, the reason we're had the problem is because of this, eddy effect. Because if you throw in a pair clean order, you got a blood die.

The carotid artery is about that. As big as my little finger. And you've got this blood flowing at high pressure, and it hits those three lobes. It creates an eddy effect downstream, like you're cramping a garden hose, and it makes the downstream temporal lobes have all these issues.

Yeah. Again, it's physics. It's just the way flow dynamics are. And I think that's one thing that the doctors don't have is in regard to putting all this stuff together.

You have to understand a lot of different things. Physics has been my biggest advantage because, you know, if it's a law of physics, it has to apply to everything from an atom to a universe.

And so let's make sure we're staying within the law of physics and understand why the person is having these issues. Sometimes it's flow, sometimes it's incompatibility with, the genes missing in the individual.

We just don't. There's so many things that can cause these issues, but that's where I want most of it. I'm trying to teach that right now. Teach them how to be investigators and not just quit with, well, that medication doesn't work.

Why isn't that medication work? It's supposed to be like EEG is a homeostatic regulatory system. They're supposed to bring you back to neutral once you're balanced out for whatever stressor you're under.

And if it doesn't, something's wrong. There's something wrong in this system. Could be the MT for our genes. You

don't have the foundation materials to make your dopamine, serotonin, melatonin.

And norepinephrine. But it's, it's a fun time. I enjoy doing what I'm doing. My wife says I retired, and the day I die, I just love what I do, and I love everything cases. So do you got any cases?

Are out there driving people crazy. Between you and me is functional medicine. Doctors are the best in the world to work with because they want to get to the root of the problem.

And I get a lot of referrals from functional medicine docs now that say we couldn't figure it out, so it's got to be in the brain. My cardiologist sent me this case the other day.

I got a case, and this lady was having totally runaway blood pressure. I mean, even when she lay down, it went even higher. She was in a 200 over 180.

Blood pressure. Your ship out. Right. Stroke out. He said. I can't find it, Doc Brown. I said I did everything I could, I can't figure out why. I can't control this woman's blood pressure.

It's got to be in the brain. Okay, let me look at it. And so we did EEG, and sure enough, in the posterior part of the brain, we found what we call intermittent rhythmic delta activity.

And delta means it's subcortical getting down to the brainstem. And it turns out being a very treatable encephalopathy, that if you don't know it, they die.

If you figure if you figure it out, it's easily treatable. It's a one that you can treat. It's very treatable. Encephalopathy. And so I sent it back over to him.

And he did his research and everything. And also what he needed to do. And the lady's no longer a patient bar. She's got her blood pressure under control.

But again, functional medicine, doc, when they run down their whole rabbit hole of whatever they figured out, they don't figure it out maybe in the brain.

And I can help him. And I'm always referring out to them because I'm not a medical doctor. I can't go chasing toxins down. I can't go chasing gas. You got issues down. That's.

I can order that stuff. But yeah, that's your run. Can you move a little to your right? Because the sun. The sun. Okay. Sun was glaring and there we go. Yeah.

It was just like it was too much. There we go. Oh. Thank you. I didn't even see that. Yeah. Thank you. Well, okay. Finally, what advancements or innovations in neuroscience are you most excited about?

And how do you see the field evolving in the next decade? Well, I'm really excited about the combination of treatments. I think combining treatments is the way to go.

Yeah. The three things that I'm really excited about. Neurofeedback, obviously, thought about modulation and hyperbaric oxygen. Hyperbaric oxygen has got such an advantage.

And it does the whole body photo by modulation. I can just do the head because I can't do the whole body. And I recently have put together a team with my, I wrote a paper in 2019, published in 2021, about treating severe brain injury with hyperbaric oxygen and neurofeedback.

TBI, PTSD, and Physics-Based Brain Insights

And my colleague in, Bahrain sent me an article quoting me, I love those articles about treating, with using hyperbaric oxygen and neurofeedback. And so they always have a corresponding author.

So I wrote the author, I said, I really like what you're doing here. I appreciate you quoting me. I like to I'm trying to put together a team. So he wrote me back. Love to do it.

So I about a month ago I developed this, what we call neuro baric research network. And my hyperbaric oxygen guy from, Bahrain, the American Mission Hospital, and this treatment facility that has two locations outside of Detroit, called Oxford Center.

And they have one place. They have 70,000ft². They've got eight chambers running all the time. Right. And they got a second facility. And then my team that I work with, in Virginia, the hyperbaric tier, hyperbaric, treats, tier one operators.

We're talking about the knuckle draggers, the door kickers, the military hardcore, you know, Seal team six and all those guys, and they're really a great center out there, and then I can't.

And so I contacted, my buddy in Bahrain, and we brought this group together. So now we're calling it the hyperbaric, the neuro Baric research network.

And now I've got an opportunity to expand our research. We're trying to coordinate our research. So we're doing it from multiple sites combining hyperbaric oxygen with neurofeedback.

When I was in Bahrain, we were able to get the issue solved in order to get the penetrators through, to put our electrodes inside the chamber, to read the brains and everything from the outside.

So we did the first ever, two atmosphere dive during hyperbaric oxygen. And in Bahrain. And so what a great thing that that was, is that, let me find you a picture.

You got to see this picture and and, there she is in a hyperbaric chamber at two atmospheres doing neurofeedback. Oh, that's great. So we got that worked out, got equipment to do it.

And so we're trying to do what a perfect opportunity to bother it. Pressure to do no back I love it. You're knocking out two therapies in what at once.

Why not. They're doing nothing for an hour. Yeah yeah I will be training the brain. And we did my air brakes every five, every so many minutes. And it's just. So we're we're working this.

So now my my thing is, if we can get I think we with this guy I just met the other day thanks to Michael Pierce, another one of functional medicine gurus.

Yeah. He, he put me together with this guy, and it looks like we may. We'll be able to get a large grant to run this multicenter study on doing this and working with Seacrest, chambers and, this chamber he had.

And I got a connection with them. So I'm trying to set up right now, I know, hyperbaric, research and treatment center here at the Med Center, because we really need to be doing this from a large scale study here in Houston.

You got your operation. That's why I really love working with you. You're close. You're at least in Sugarland. There's a third person up. Been way up in the woodlands that has a hyperbaric center.

But, we need to be bringing all these people together in order to try to do this, because it's the it's makes so much sense. And if we can get a two, four out of it and combine these therapies, especially if we overlap on top of that photobomb modulation, which I could take by the quick steps and do every day, we've got really a chance to make big changes and people that are really suffering right now, whether it be head injury, whether it be stroke, my, colleague that I'm working with right now, we've been trying for two years to get, hyperbaric oxygen study done with the soft chambers, because that's all we had could afford to soft chambers on chronic pain study and a dementia study.

Now, if we can get that chronic pain study done, it and publish that to get people off opioids using hyperbaric oxygen, you know, where that's set is on a map.

That's huge. Wonderful stuff right there. So doctor McGill popular is his name. And, he's over there next to NRG Stadium, but very brilliant.

Future of Combined Therapies and Research Networks

He's had several NIH grants and stuff like this, but we're having a hard time getting the IRB approval for soft chambers because, you know, there's just not much interest in doing that.

But I love the heart chambers. I just can't afford it. Now. Maybe we can get some work done. Something worked out with Seacrest and the heart chambers, but that's where I think the future is going.

The about modulation then cycle. Are they, you know, again and the hyperbaric oxygen to treat the neuroinflammation piece and heal the body. And then they, put a stack on top of that to neurofeedback to reprogram the brain, to rewire the problems that have been disconnected from the head injuries or the strokes or whatever.

I think it's just going to be a phenomenal thing to kick off. Yeah, hopefully that's where I'm going with the next, years that I have to try to get that to happen.

That sounds so exciting. Well, I really appreciate your time and sharing all this wealth of information. It's been fantastic. And, I look forward to to speaking with you again soon.

I love that, and I would love to come out to your center and see your chambers. Just, you know, as a commercial diver, I started in this area back in the early 70s, and now I've ran more offshore operations for high saturation diving.

But, you know, regular decompression diving and everything else. So my history in hyperbaric oxygen, it's always been something I've been really loved.

But now to think we're going to be doing research in that area is just fantasy stick. So I think you're on to something. And I think your functional medicine, work is absolutely wonderful.

And anybody that comes in must know that you're not satisfied until you figure it out. And that's the part we have to figure out what's causing these symptoms.

That's. Yeah, exactly. Exactly. Cool. Well, I'm going to stop the recording here. Thank you for tuning in to Doctor Talks. We hope today's episode has enlightened and inspired you on your path to optimal health.

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