The Precision Medicine Approach to Neurodegenerative Diseases and Total Body Health Transcript

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Introduction to Precision Medicine and the Resilience Code

Hello. This doctor can't hold tour with another interview for the Peptide Summit. Today we have, an amazing interview, with Doctor Chad Prismatic. He's, neurosurgeon.

And to the talk about precision medicine approach to concussion and neurodegenerative disease and, yeah, neurosurgeon talking about this. So, very cool.

And I met him through the eyelids chat room where he was just posting this, this amazing information all the time. And that's how I think I got to kind of, connect with them.

And, so thank you so much for being here. And I know you're so busy. He did all nighter the other night, and, so thank you for taking the time. You better count anything for you, buddy. Thank you.

And, I have to confess, this is the second time we've done this. I forgot to hit record last time, so he's nice enough to do it again. So. Very cool guy.

So appreciate that. No problem. But. So, he has an amazing. And we'll talk more about it. This. I think it's like 45,000ft² clinic and and just the cutting it stuff for, you know, basically training and brain injuries and things like that called the resilience code, was found in 2016.

He had the vision to create a comprehensive health and performance, personalized wellness plans. And, like a press, like a certified functional medicine through IFM.

And this is a member of Islands. He's the only board certified neurosurgeon United States who also holds a functional medicine certification. That's really cool.

He's, primary, neurosurgical consultant for Denver Broncos, United States Olympic Committee, with specialty in early general diseases, concussion, post-concussion syndrome and performance medicine.

And we're talking, before, the interview here really about how traumatic brain injury, it's just so different if you have mold or you have Lyme and they really play a part together.

And I should mention he's, if you look at his CV is, you know, 12 page CV, it's like Harvard, Columbia, tons of publication, book chapters, tons of presentations on stuff.

You got to look up all the words, the title. So, he's gracing our presence. Humboldt. Thank you so much. You're welcome. Kent. It's a pleasure to be here.

And your knowledge, astounds me every time that we talk. I don't know whether you're scientists, the doctor or, spirit from above, but, you help my patients and you help a lot of people.

So I thank you for all that. Thank you so much. Yeah. So. So you practice precision medicine. What? What is that? It's a precision medicine is sort of a, a type of medicine that looks at studying the individual and getting data on the individual rather than studying a disease.

So in traditional telepathic medicine, we use evidence based studies. And what the goal is, is to prove the efficacy of a certain intervention on a population that's selected.

And so what you're looking at, for example, if it's a cholesterol medicine, you try to make a very small window of very similar characters and people, and then you kind of put them in two groups.

I know you know this. And and the point is you actually get an answer on whether a statin lowers cholesterol in a statistically significant way. So it gives you a very weird number.

It gives you a success rate on an average population. Okay. Well, I've never treated an average population. I've treated every single human being one on one.

And so it's almost like quantum mechanics where if you look at something on a small scale, you need quantum mechanics math. If you see something on a large scale, you need, you know, general relativity math.

The point is, it's the, the, the, the, the frame of reference with which you're making the analysis. And so it's a very hard thing. And I know, you know, this can't like people are looking to provide tools.

Big pharma they're looking to provide medical devices. They're not looking to provide you with the right medical device for the right condition. And so a precision medicine is it's all right.

Throw out all of the old thinking, let me test you and let me have you tell me, what are your goals? What are your symptoms? I'll throw out a blanket of blood biomarkers.

Electrophysiology of the brain, MRI, eyes, radiology. I'll do kinematic studies. I'll just get everything. And then when everything comes back, we then play doctor.

And what we do is we come up with a treatment plan. And the important piece here is we track it. So in other words, like I'm not just like I am firing blanks like trial and error is what every doctor does, but what I'm doing is tracking what I'm doing so that I can learn quicker and through data analysis, can get feedback on, okay, does this person with high cholesterol who took off this stupid statin medicine that you put on berberine, did that lower the cholesterol?

And if not, well, that's a good data point just for my data bank, because over time it may be in this subpopulation with these genetics, this statin doesn't work.

But unless you have time points of here's a person in a state, a sick state, and here's all of the multi-omics information, like every level from social down to like molecular, you get all these levels of information, you get a pattern.

So then you get a person's, you know, what we call, you know, I guess disease signature or health signature. And that evolved and we track it over time.

So precision medicine is doing on the go n equals one medicine with a lot of data analysis and outcomes predicting using this type of mathematics. Yeah.

Well that was really profound and I agree where you know, we're like editas medicine is looking at, you know, there's giant, double blind, placebo controlled trial, but you also look at those and they're so able to skew those.

And they do one little thing. It's like you look at the trials of like two nonsteroidal companies. Whoever funded it there, there's came out on top. And my, I know a person who works in one of the, CBOs where they do all the testing, where they're not supposed to know what's placebo once and they know what's what, and they get a huge bonus if it passes.

And so they're doing whatever they can. And I also I was looking at the, approval of gabapentin, you know, and you look at the curve, versus placebo for a it was like no different than one.

It was like one little dip and like, oh right there. Yeah. And it's crazy and and it's true. And I tell patients, you know, I,

you know, you're this study shows this, but you're not a study.

That's right. And and I pay so much more attention now to case studies. Someone saying, hey this works for this population. And you look at the levels of evidence, you know, supposed to be a double blind, placebo controlled study that announces, you know, retrospective studies, then, case studies, but the least, the lowest level of evidence that's shown to be the, the least, accurate is the societal guidelines.

Yeah. You know, and and what do doctors look to?

Why Evidence-Based Medicine Falls Short

There's going to be 20 years behind or shown to be totally biased. Not in the concert studies. Right. Yeah. You know, I, I think of evidence based medicine as the old textbooks in my library that when I need to learn what I think I can take away from a medicine or a medical device or an intervention, that's information that I blend in with my other peer review with experts like yourself that I have with my experience databank, in my database, in my brain.

And you know what a clinician does, like a clinician sees so many patterns, we can feel when something's off. And as long as you can start to identify the why and over many iterations you'll see that why several times.

But if I need to know, like we talked about Morgellons today okay. Complicated subject. But the point is, is at the end of the day, I have to help somebody.

And you had a suggestion based off of, you know, expert sort of peer guidance and what your experiences. Well, that may be lifesaving. Well, the difference for me is that'll be imprinted in my database.

And I will have the data before and after all of these things. And if some pattern emerges, we'll now have like an ability to clinically do analysis to say, hey, look here, here's my Hansel and Gretel breadcrumb tree.

Like this is how it happens. Rather than saying let's get ten people with Morgellons, let's do five with silver. Let's do, you know, like it's it's not real.

Yeah, yeah. Never fix anything. Yeah. And and they show that a proven new therapy takes on average 17 years except in mainstream medicine, unless it's a new drug and at the same scores, you know, and they said, you know, why is that?

People, doctors don't read medical journals. They don't. And I was just talking to this, Harvard, glycosylation expert today, which I'm into because we're trying to do this at night, but he had to teach a class or and he, he said when he talks his doctors is how many people?

We're talking about medicine. How many people actually have read a journal article? From front to back in the last three months, every I said probably zero on this exact.

Exactly. And he goes very few would read the abstract and the abstract. Often the studies show don't support is not supported by the let the by the data in the study.

But that's not even why it takes so long for a proven new therapy. If you give a doctor, here's 50 studies showing what you're doing isn't right or correct or the best.

They don't want to hear it. Don't tell me no, not. My patients are different behind. I'm doing my. Yep. You know. Yeah. Yeah. So trying to make a difference in providing a system which over time we hope to spread out, you know, and, and sort of be a type of data driven multicenter, you know, I guess health and performance.

We're not only do we offer all the data and analysis and testing, but we also, you know, under one roof, we sort of, you know, provide the care as well.

So we'll, we'll we have a gym and we work with strength and conditioning coaches. So, you know, let's say they're, they're, they're dorsiflexion on their foot is inadequate on the left side.

And they have back pain. And the training condition coaches on force plates can see that discrepancy and see asymmetries. Well then they can come up with a personalized rehabilitation program that gets worked into their daily workouts, where on my end I'm looking at all their brain pieces.

I'm putting them in neurofeedback, testing, doing a brain map, neurofeedback, retesting, you know, looking at all the biomarkers and providing a life plan.

Whether someone comes in and wants to, like, rule the world and run a business, or if someone can't get out of bed and has an invisible illness that that no one's figured out.

We kind of take care of the whole gamut. I love that, and I love getting a lot of data. And, you know, you can just, like, you know, when people say doctors, oh, can't fix biology, right?

It's okay. Well, we we we get our base panel, you know, 30, 40 tests. It's we can pick them out without talking to the patient and how sick they are. You know, about 80% of the time, you know, these patterns, like you're saying, you know, that's right.

And what's important, like, you know, for me to make decisions and do something that I haven't done, I really need to be comfortable and I will never do something that I don't research look all over.

But I need to hear from someone like you or a Jill Carnahan, Dan Kindler, or, you know, like, a PhD in neuroscience. You know, like a lot of Granholm who's the head of do use, you know, Nobel anti-aging, university.

And we partnered with them so we could have an, academic overtone. And I think that's what's important. And, like, this island's chat room is amazing.

I mean, I have more articles to read, and they're specifically about what I want. They're from people like us, really bright from all over, that have different perspectives and we just sort of throw our chum in the water to help the rest of us, and we get some back.

And, you know, it's probably the single most effective learning tool I've had in several years, to be honest with you. I was going to like, I think it's like made so many posts and cool stuff to read, like it's just like, oh my God is sucking up all my time.

But but it's worth it because you just learn so much more than if you were, you know, you just never think about it. Exactly. So, Yeah. So so that's what we do in Denver here.

And you know, it's cool. So, it's that resilience. What made you call it that? Well, I, there were two things I wanted to sort of emphasize, and I wanted it catchy because my goal is not to put my name on a billboard.

My goal is to change the way young adults and healthy people, acquire their health, that they see their health in high definition and in early stage. You know, we go to school and I can read Chaucer and Shakespeare, but I can graduated from Harvard, not know where my liver is, how to do my taxes.

And I don't know what a fever really represents. I think that's a big problem because now when everyone's having fever and dying, they look at someone like Fauci and they say, okay, well, I guess he's the one that we should listen to.

The point is, that's the one you should not listen to. His responsibility is the nation, which is a macro health economic issue. It is not the one on one issue.

And so like where they make money on vaccine is the macroeconomic issue. Yeah. So, you know, your primary

care doctor, unfortunately, overworked, underpaid insurance companies dictate what they can do.

How can I help someone when I'm only allowed to do X amount of tests? If I say X amount of things, you can't. And what the heck am I doing? What? Someone else who's not a doctor told me to do because they have some board and they know they found what is cost effective and they build guardrails around it, and we have to go through the hoops.

It's total horseshit. It's like, let it happen. And they always want to treat the patients. And and so it's come down to that. Yeah. It's basically and like these like HMOs and things they'll get rid of the, the 20% every year.

That isn't cost effective. I mean the doctors that are doing more tests, making more diagnosis, prescribe more things, getting people better, and they'll just cut them and say they're not cost effective.

And you get, you know, their bonus for doing nothing. And that's why there was these codes, cash, for, for for large catastrophic traditional medicine interventions.

We use insurance. So someone needs to be referred to shoulder surgery. If someone needs an MRI, that's what insurance is for, like routine care. That's right.

And unfortunately hopefully get some of the meds processed. But they know here's your burn, here's the membership and this is what the outcomes will be.

And, you know, we'll have you have a 35% chance of getting this better 65% chance, because that's what our database has meant to over time give. So we're selling outcomes and health certainty at the end of the day.

Building a Data-Driven Health and Performance Clinic

But but what I was getting to is, I want to take what the gym is, what, like a high school kids, health education, their coaching and the primary care doctor.

And make resilience codes where people can come in, pay a price. You get your your primary care, your functional medicine, your strength, conditioning coaches or PhDs.

You have rehab. And so you learn how to squat for football. You learn maybe what A. D. D. is, you have all of these things that you get health intelligence as you get older.

And so, like, why do we need a gym where someone just says, go play in the jungle gym? I want someone to test me and say, this is exactly what you want to do for the goals you have.

If I want to be faster, if I want to be thinner, great. You studied. I'll do your personal program here and you trial and error make me get that. That's the same thing that happens with the functional medicine piece.

Someone's got Lyme disease, or what I deal with is post traumatic brain symptoms or post concussive symptoms. So we see the hardest patients who had to drop out of the NHL, NFL, they're four years out.

They still have ringing in the years they still have blurred vision. No one's been able to help them. They've gone to all the great places like Bu or universities, NFL.

And the issue is like they didn't take it 360 degree view of what's going on. And a lot of these guys have mold toxicity. They have Lyme. There was a study out of Harvard that post-concussion syndrome of people who are two years out with symptoms, 38% tested positive on CDC criteria for Western blot, 38%.

And what's happening is is so what I'm looking at again, this is this 360 degree view of your health. So I'm looking at Lyme disease. They help out a brain injury. Why.

Because as you know the neuroinflammation induced from chronic Lyme disease and the micro glial you know activation. What's that causing neuroinflammation.

What's that causing inability for neurons to remain plastic and the inability for neurons to communicate. What do you get? Brain fog, vestibular dysfunction.

So you treat the Lyme disease. And all of a sudden all the brain stuff goes away. You know, it could be Lyme, could be heavy metals, could be an abusive childhood, it could be drinking, you know, any toxicity that could pollute the brain.

And so you were saying, like, mold seems to be a big one. Most big. Yeah. I gave a talk at I leads on, mold issues, and we're studying mold issues, and it turns out, on people that we see.

So the average amount, the average person is about 42 years old. The average length of symptoms are four years. So these are big time, you know, people that are today in a lot of places, one third, 38% Lyme, 33% mold, 11%, not 15% gut dysbiosis, which is which is huge.

The gut piece and the gut brain stuff. That's a propagator of a lot of brain access. More and more, we're just more people have toxicities. So what we call this whole field is environmental sub concussion.

It's the field that looks at environmental toxicity that could upregulate chronic neuroinflammation. And that what pulled the trigger. What loaded the gun was the concussion.

But what's really pulling the trigger are the ongoing toxicities that you come up with that a little term. No, no. A team in Toronto did. And there's a really good article out of frontiers, back maybe 2018.

It's called environmental sub concussion. And they, they wrote like a editorialized academic hypothesis. And when I saw that, I was like, that glued exactly what I do.

I know I just love the term. Oh, it's it's functional medicine directed at brain injury. And it's a multi-omics approach making sure that the treatment comes.

Hey, you may have to treat the social situation. You may have to treat a biologic situation. Give stem cells. You may have to give peptides. You need to do all these things.

But if you don't look at it in multiple layers and figure out the pattern of why this person has this flavor of post concussive syndrome or CTE, versus when, like, you need all of those layers and that's the that's the reason we we do all this data.

It's to start with, you know, making a map of, of, of people's health. And, and they're going from a healthy state to a pathological, you know, can't like people don't go from like, I'm healthy to, disease.

There's a continuum. Some happens we have zero info on that. So I want to shine the light in high definition on that piece. And I want to figure out the middle game of all these things so I can give you information that helps you, doesn't help a drug company doesn't know, but it helps guide you, make decisions.

It helps people understand the why, but think it's a big deal. Yeah, no it is. And people have to take an active role in their health care now, you know, especially when they're sick.

It's just you know, and I think people get are more and more it's seems like everyone's sick or everyone has a family member is sick or a friend at a party.

And I was like, oh my God, I got and I go through and you say, well, I would do this as well. Might not because of that does not that's not happening.

Well, how's that working for you. Yeah. It's like and so I've kind of stopped I would like right. Well absent form right there. But now I just kind of like give them advice, whatever.

But let them call because a lot of will never move forward even though they're miserable, you know. Yeah. And I mean, I can't tell you how many questions I get on Covid.

Hey, I'm a neurosurgeon, functional medicine doctor. I now have maybe 100 post-Covid patients because the what happens in pathophysiology of post-Covid is very similar to Lyme.

It's upregulation of cytokines and chronic inflammation and the dysregulation of clotting factors, etc.. But the interesting point is when you talk to all of them, they have nowhere to go.

They have nowhere to go because their primary care doctor has an N equals maybe ten. They send them to the hospital if the oxygen is low. They don't believe in the ivermectin which which works amazing.

And I have what is hydroxychloroquine. They both let me I the second an elderly person has it. I go doxy on the hydrological and ivermectin immediately like yeah it's not randomized controlled but they're alive and and I mean, if we were just to give the population the normal vitamin D, zinc, vitamin C plus live annoyed, then if they test positive ivermectin hydroxychloroquine, there would be no pandemic.

That's right. That's right. You need to look under the hood of the car to make sure you're not going to break down before the storm comes. Before Covid came, you had metabolic syndrome in your in your 80s tough shit guy or girl like sorry you're unhealthy.

This led to your demise. I have compassion for anyone that passes away, but I also understand that we should be educating people in a way that people are compliant.

And it's not, you know, in terms of Covid, you can you can't. As soon as you write something, you know, I wrote something just on vitamin C, zinc, you know, and, remedy and within 12 hours, FTC right.

So that's that's why you don't this is what you do. You set up a membership like resilience code, and then you take your own data and your own types of information, and you only allow it on a portal that they can access such that it is as authentic as we're responsible for.

And they come to me to say whether they get the vaccine or not, or our group and we have integrative cardiology, integrative, you know, oncology, we, we have so many different specialties.

We have psycho psychology. I love the love that. So if you have different memberships or how does it work? You have healthy people. Oh, yeah. We love athletes.

Yeah, yeah. So we get a lot of elite athletes that we become this sort of primary care performance doctor. Looking at micronutrients, hormones, things like that.

But also supporting them so they can recover quickly. So it's a membership model. The model is more like a golf membership. You pay x, x, get you access to a lot of things.

You have your own clinical psychologist, your own functional medicine doctor referral, a cardiologist, a screen, a colleague, you know, neurofeedback.

And you have testing three times a year.

Environmental Toxicity, Lyme, and Brain Injury

Any other testing in between and how would we I'm interested to try it myself. Actually, it's, So how how do you find out? More like other different packages or is there, how how do with how would someone find out who is that?

So if you go to their website, it's WW uw my resilience code.com. And on there, there will be a, you can type in your information, and we have our, chief experience officer.

So our CXO, her name is Andrea Beever. She used to work with me at the Broncos and used to deal with their recovery services. And she is a wonderful sales and customer experience.

So she'll go over the different packages six months, 12 months. What level do you want to include the brain? Do you want to include the the the oncology?

Do you want to include these modules? And and hey, that's the just here's the feature medicine. Yeah. It's got to be you know, the one thing we haven't ironed out is economics.

Like, it's expensive. So what are what our business model is. Let's figure this out. Let's take very good care of influential human beings that will give us an infrastructure of power.

Let's be authentic doctors that all communicate, all to communicate with academic institutions, to keep us all honest and not greedy. And let's then own all of the health data and start to populate in the private sector what these health things mean.

Let us figure out in part what the vaccines do, not in the evidence base model. Like that's that's your guy's job. That's fine. But in the end equals one model.

And and that's what we're trying to achieve. And it's gone very well. But you know, starting a business like banging your head against a brick wall every other day.

Oh it's it's tough and but you know, medicine is getting you know, it's worse. You know, it's it's it's so population based and you know, everyone needs health care.

But look at the health care what's going to get you know. Yeah. It's it's just it's scary. You know. You know. Yeah. Especially if I mean if you have we go to the E. R.

of a broken leg or something. Okay. But if you have something that's complicated, it's not in a little box. You're going to have the toughest time. Like, you know, people are going, well, I, you know, I went to the Mayo Clinic.

I'll see you in two months, you know? Yeah. And can I'll bet you've heard this. Oh, my God, I had this problem. I went to the E. R. it was there for 12 hours, but one person, thank God, cared about me.

And they helped figure out and got me a floor room or some nice nurse or some caring doctor. It always comes down to someone who takes responsibility and earnestly, empathically figures out how to help.

It's, you know, it's not a traffic cop that goes for anyone, any doctor. Like there's two types of doctors. The doctor, it's on time, right? And the doctor that listens like you need a doctor that empathically listens.

Excellent to hear. I am so behind because all of a sudden, it's four hours I've spent with the patient, you know, and then next person. But they're used to it now, cause I'm not.

Yeah. And, and I just get it and go in depth as much as I can, you know? And, Yeah, I'm, I'm the least I'm, I'm doctor ever, but, you know, but people don't get mad because they know they get the time.

Do you know? Yeah. Yeah. So, you know, trying to fight the machine a little bit. Rage against the machine and, you know, see what what turns up right now we have, you know, over 250 members, you know, yearly memberships.

We, we fly and do, we have virtual versions so we can do virtual training, virtual neurofeedback or, virtual blood work. We send our phlebotomist to whoever.

Another thing. Can I know you know, this phlebotomist are important. I can't tell you how important one is. We've had two wonderful ones, and I'll tell you, they make the entire process work. Why?

Because they will take care of every wreck. They will get everything in in a timely manner, and you get good results. I can't tell you how many times you have a bad phlebotomist.

The patients get so pissed because someone lost in the mail didn't work. Got to come get it again. Like so. I think our, you know, make multiple sticks.

It's like I did had a seizure, and I. You have a person, you go visit them after you saved your life, like, ten times, you know? And, so you're so proud of yourself.

You go in there like, oh, I remember you. And you're like, yeah, you missed live the first time. Yeah. Yeah, exactly. So this direction. Yeah, it's, It's true.

It's like you're a front desk person. Same thing. You know? It's like, yeah, it's our Larry. But, you know, we don't take insurance either. Like, hey, do these people care? You know?

And, God, if it's not everyone in the organization does, one person can give people the wrong impression, you know? Yeah. And and that's true. And so this, this was one of our doctors is, family practice.

He's like, we are now data collectors for the government, you know, and it's just like it's refer, refer, refer, refer. And he was in our office. It's the basis, but it was, you know, he just would refer out.

We hardly ever refer like you, you know, it's like you got to take care of all the GI stuff, all that, you know, it's, you know, maybe send a person to a cardiologist a couple times a year, but, is that you got to become, you know, the expert.

I mean, there's no way you can do neurosurgery or something like that, but I really think you could study all literature and be better than the the, the specialists like gastroenterology, like they're just now discovering probiotics, you know, and the microbiome and the gut brain axis.

And, you know, if you have a chronic, endocrine problem, don't go to any great allergist, so don't go to an OB chronic infection. Don't go to infectious disease, doctor.

You know, they don't believe in it. So it's it's crazy. Yeah. They actually serve a different science. Like they serve the outer skirts of disease. They are disease helpers. They mitigate it.

They don't mitigate it. They help elevate disease after you're already there, they're great at it. If I have a bad staph infection of septic, America's got a great system. Why?

Because it's directed at a thing. The person's name doesn't matter, right? But until they get there, like, how did they get there? Who's checked on their immune system all the time?

Who knew what their food sensitivities were? Who knew if they had had heavy metals that were just regulating their immune system, that led to them getting recurrent infections?

Who didn't get them to immunologist for IVIg if they had like, you know, immune deficiency. And so that's the problem is we need each other. But we're talking about two different games and our game is about health.

Their game is about disease. Their game is fixed with surgeries and devices and pharma. Ours is fixed with science and helping people on with experience who integrate and truly want to help, you know, an infrastructure of like a four seasons type place.

So communication is key. Everyone is spoken to, everyone understands the mantra of the resilience code. Why?

Because I can't spend that much time with every patient.

But my strength and conditioning coach that's trained me for ten years. If he gets a patient, has A. D. D., he knows the dopamine pathways, he knows the reason for tremors.

And guess what? One of my patients who has a question to him will get that answer. What do they think? What a great place. I really understand everyone is on the same page.

Yeah, and everyone sounds passionate about what they do or biases that they go in the hospital. The hospital with sepsis. And, I talk to, I see doctors, I think behind us, vitamin C, they're like, why?

Why would I do that? I'm like, it's been in every journal for the last couple of years, you know, as the only thing to reduce, the mortality in sepsis.

And then so the nurses are going to pass that they would tell, the one feisty nurse, well, I'm going to make him do it. And then so she comes back and she's all smile.

They're going to do it in about 12 hours. Later, I get in a little tub, 500mg of vitamin C, you know, and they don't even know of the studies. And I gave the study that they random or the other time I went in does out to dinner.

My girlfriend, their kids, their kids are like your eyes. So cool. I'm like, what is going on? And I it's awesome. And I'm like, I better go check. I looked in the bathroom, just blown people just my whole life, right?

And so I'm like, I think I need to go to the E. R., you know, and I go in there like dog, and I'm like, look at my brain's dying. I need you know, I'm like, give me progesterone.

I'm all people peptides. And he's like, yeah. So I tell him, I have the pedestrian, you know, a bridge. You know, that's neat. I said, so you do it. She goes, no, with the study. So you'll do it. No.

But yeah. So and, it shouldn't be a hard time, right? Yeah. Last thing that there's one growing up. One people is always there. The other. And I took in Botox like three days before I started around.

And that was kind of my internet's so interesting. Wow. What a that's a good too. Interesting story to see and equals one now. Yeah, yeah. You know, and they didn't ask anything.

They said you're fired. You know, CT and MRI and a pituitary MRI and the go. Nothing like what do you think it is? We don't know. Well, the MRI was a good move.

At least. Yeah. But so concussion. Yeah. I about concussion. You bet. So, people are hyper focused on the diagnosis, which is about 10% of the problem, but it is the biggest problem front and center on stage.

And the reason is because before you can actually discuss something, you have to define something. And in order to define it, people love objective findings.

They don't like wishy washy findings. End of the day, concussions are diagnosed by health professionals. No test, nothing else. Just like anything we diagnosed, we are supported with physical findings, radiographic findings.

But it's us that's a concussion. So my job with the Broncos I'm on the field.

Concussion, CTE, and Neurorehabilitation

I travel with them. The little guy or the guy goes in the tent and I help decide whether or not someone's concussed. And if I'm suspicious, we will then take him to the locker room and do a protocol.

And that protocol is a very smart what we call, Scout 5 or 6. And it's a sideline concussion assessment tool. It has

the best tests. It has the post concussive symptom score.

Everything done data wise. And it's extremely objective. And so what this the NFL has done a wonderful job at objectifying it, because they had a social pressure because, you know, people were sick and we don't know exactly why.

No, no, I'm not saying head injury causes CTE, but there's some association. So anyway. But everyone's so hyper focused on take them out of the game okay.

They have a concussion. All right. We got that okay. Now what do we do with them. Once we say they have a concussion we'll keep them out of the game okay.

But if I break my ankle don't any rehab. Yeah. So you're saying just because it's a confusing and a little more difficult to understand than the ankle, we don't have to go rehab it? No.

They only have rehab for people who are in a coma, that makes no sense. So. So neuro rehabilitation early is critical. And so I call it a hardware problem or wires.

They are a bunch of highways. And when you bang your head, certain highways get potholes, some highways blow up and some highways remain and then inflammation occurs.

So if you're trying to get to work now, your brain has highways with a bunch of fog on it. And what is these fog? This metaphor is for? My balance is off. I'm dizzy. I'm nauseous.

I don't like the lights around me, you know, I feel like I'm falling down. I'm sad I can't get out of bed. You know, I'm depressed, whatever it may be.

And the problem is, you're like. So don't you want to sort of look at the highways and fix them? So what should you do? Test what highways is busted and rehab it so you can fix the hardware problem.

Now, if you fix the hardware problem, what are the things I'm talking about? So it can throw off your balance system? People need a vestibular evaluation.

Everybody. And they need vestibular rehab. They need their autonomic nervous system tested disorder. Nomi or the hyper sensitivity of our fight or flight.

It's huge because it can cause all of this. Like talking about huge. So if you're not doing orthostatic for ten minutes, you're missing out on something huge.

If they have pots, they need Levine protocol. Propranolol might drain, and that's the reason people don't get better. So the reason is, is people on the front end, they don't look at the hardware and the software, the hormones, the nutrients, the oxidation, the mitochondrial dysfunction.

That's the fog. And so if you don't look at that, then you're missing on how the fog over time will make the potholes remain and make it very difficult to drive.

And so that's why we look at concussion like hardware problem software. Problem software is environmental sub concussion screening for toxicity ities, inflammation imbalances, genetics PSA puzzle rehab the the the hard wiring.

And let's see what we get. And that's what resilience Co does. Nice nice. You know we're actually just by the way you mentioned Pots. We're doing a little pilot study on just BPC TV for frying for pots.

Because we find they just get better. We don't even have to think about it really. But also you should do a study with the Denver Broncos, give them all PPC TV for free every day to prevent a concussion.

Yeah. So again, Oregon treatment macroeconomics NFL has a responsibility to entertain and keep guys safe and keep it. They're not interested in, someone either augmenting or testing that experience that would get in the way of their game.

I respect it, I understand it, that you can't look at it as a team, but each individual player deserves a performance doctor that has their brain mapped before they enter the NFL.

See what the NFL does to it, and give an honest opinion on and help them along the way. And that's that's what I do. So like, yeah, I am on the field and I'm a consultant and I love helping the kids or young men.

But, you know, my intellectual interest is helping each one one on one doing a deep dive into the functional medicine to put together this environmental subconcussive burden, together with some of these hard wiring problems.

Yeah, I have a doctor. Buddy has a couple, ex NFL players that, like, can't find their way home. I'm going to have them send them to you. Oh, yeah. I mean, we find so many different things because we have something to do.

Like, I can't change the past, so I can't change the concussion. But I can make you healthier. And instead of me just pretending if I'm some energy healer or, you know, a witch doctor may work in some cultures.

Well, I want something that has data, so I'm not going to treat you unless I have a bunch of test. If I have a bunch of tests, I'm going to look at you and say you're magnesium is low.

You have, a high deoxy go to sea level. You need antioxidants. You don't like acid. This is why you got it. We're going to track this. We're going to see if you get better.

If in three months you get better. And these are better okay. There's our treatment pathway. And so you involve the customer or the client into that pathway is the end of the day.

If they understand what's going on and they want to in the beginning. But football players are bright. I mean these athletes they seek and they can smell what's good for them, man.

You give them the right trail. They never get hurt. Yeah, I mean, but they tend to just let them go, like, you know, not that we can do, you know, post-concussion syndrome again.

It's it's not on there. It's not their goal. And it's not because they're bad people. It's because they're looking at a different view. It's relativity, quantum mechanics.

How do I keep everybody? I love that analogy. You know, it's true. It's a different scale. It's a frame of reference. My frame of reference is I care about you, Peyton Manning.

I care about the team. But the way I have to care is different. And the way that you treat is different. It's not inadequate. It's just when you're making global decisions, like if you got a bomb country like it's not an n equals one decision that this like how many people are going to get better.

You don't care about this particular person. That's right. You know. So so again I just think you almost need a like hardcore philosopher to help ethically divide.

Hey, this is a mathematics and thought process meant for this world. This is one for this world. So when you see a politician talking like this, they have to talk like that or not, because they're actually trying to deal with a different math.

The macroeconomics of something. It's true. People say, I want an honest politician. No you don't. They would never be elected. You want a great liar? So?

So yeah, they they have to be. If they tell the truth, you're going to hate them. You want a great liar that keeps you safe, keeps your economy good and keeps your kids healthy.

If your person can lie to do that to whatever, good job. Yeah, I know, I. That's true. And so what is he talking about CTE. Tell us about CTE. Yeah. So, there are people, who are have head injuries that don't do well after several head injuries and they get, a neurodegenerative disease that they call CTE, which is chronic traumatic encephalopathy.

It is a pathologic diagnosis. It is not a clinical diagnosis. What does that mean? That means that it's only diagnosed for sure postmortem. So you have to be dead.

You need a pathologist. You have that diagnosis, you're in trouble. You're well or not, or you're in a better. And we are so, so, you know, what gets you from head injury to that is a mystery.

And so it's something that happens over time. It does not correlate with the intensity of concussion, not directly with the number of concussions. Although statistically, if you had more concussions, they are more likely to have it.

But it's not a 1 to 1 ratio. And so there hasn't been a good connection. There are some things that fall out. And one thing that seems to correlate is something called sub concussion.

It's actually not the number of concussions, which are defined as I hit my head and I have an alteration of a neurology function for any amount of time, a a sub concussion is I hit my head, but I don't have a neurologic change.

So what does this mean? If I'm a boxer, a lineman, a ballerina and a defensive back? Okay, boxer really bad sub concussion. Why? Their sport is to absorb as many subconcussive blows as possible, and they get one concussion at the end when they get hit.

Football. I'm a lineman. Since I played Pop Warner, the first step after the whistle is blown is I hit helmets so I can block a guy. You do that and take that.

Over 20 years going to the NFL, it's a lot of Subconcussive burden. Ballerina falls once, hits her head. So the reason that numbers of concussions occur are it's people in the trenches who are more likely to get some concussions, that get concussions.

And this correlates with in one season in high school, kids decreased neuropsychological exams pre and post change in white matter lesions on MRI, changes in blood brain barrier over one season.

If you discuss quick. Yeah. Now you take that and you say, okay, well, if the sub concussions loading the gun, what in those subpopulations of high risk get CTE, CTE prevents with a very, a mostly emotional sort of mood, presentation, a behavior impulse severity, aggressiveness of volatility, where Alzheimer's is more of, you know, a cold brain where you don't remember where your keys is and types of memory goes.

And from a physiologic standpoint, Alzheimer's, an outside in the generation, CTE is a subcortical or lower brain limbic system and midbrain. And why is that?

Well, when you get hit, like the center of gravity of the brain is in the brain stem. And as it attaches to the medicine cephalon and the limbic system, so the shear force is greater, right, where the projections of the vestibular system is the limbic system, and so on.

These type of Pet scans, they do, at UCLA, you see these very hot metabolic regions in those areas low in the brain, where you don't see those in Alzheimer's, and you see it very cold out here.

So what's the whole point of this little point as well? You pieces together. You like okay. The mechanical force shears around, the the palm tree, the stem of the palm tree.

And so that's why that hurts. Oh, that's happens to be removed is. Oh, that's how they present. Well, there's sort of your loose connection. And then you can connect all of the zonal, changes, all of the biomarker changes, you know, all the protein changes and all that in between.

But at the end of the day, the syndrome is really hard to nail down because there are studies that show that people have CTE who have never had a brain injury.

There is a study of eight people. It was a case series, and they were doing random pathology samples, of, of brains, and not necessarily neurodegenerative disorders.

And it was done in London, I think. And they found eight people that had CTE but never got a head injury. So so then the question is is okay, you have this subset that head injury matters.

You have evidence that you don't have to have it. And you know, it's polarized in the public. Because when they published that study at Bu, important study, what was the cohort people whose brains were donated to Bu for pathological diagnosis CTE.

Do you think that's a biased sample course? It's a biased sample. It's parents who want to help their their kids and help the cause. God bless them. But they give them brains.

And 99% of players had changes of it. No crap like that.

Membership Care, Telemedicine, and Personalized Recovery

That's why you donated it, right? And so so that's what everyone says. Like football causes. Football. Does it cause it smoking doesn't cause lung cancer, but at one point it does.

And at one point head injury which think does contribute can contribute. Yeah. It did. Mike, the guy from New England, the Titans that killed someone and went to jail for murder.

Did he have it or do you say, you know, oh, both. And so those behaviors fit. Yeah. Where they get aggressive and I mean his I will but he's also you're going to.

I'm from Connecticut. He's from Connecticut. I'm pretty sure that guy had lives. Disease, with the head injury. And I'm telling you. And let me let me tell you, this is the final thread.

Is the environmental sub concussion. What is it? Was in Aaron Hernandez. Right. And, you know, some other superstar, I don't know, Herschel Walker. Whatever.

Well, they both hit that a lot. They both have some problem issues here, but I can attest that Aaron Hernandez had an ongoing neuro inflammatory burden, and I don't know this, so please don't.

Don't think these are opinions. These are not. I'm sure you're right. You grew up in the northeast. He's exposed to Lyme. I, as you know, I had a lifelong of Lyme growing up in Connecticut that was miserable.

But nonetheless, like, I think the missing link, it's that Lyme disease, it's ongoing toxicities in these guys who have these setups. So whether junior Sal was booze or whether it was heavy metals or whether it was a toxic social environment or whether you live next to a factory or, you know, whether I don't know.

But my guess is that's the cause. And what's beautiful, that's fixable. You can help those causes, you know that. And so my focus is to help out. And it comes from my dad has CTE.

My dad hit his head a lot. They missed his sleep apnea, his Lyme disease, his molds disease. He had parasites. And this is a good dude. I mean, I love my dad.

So that's why I do this. Wow. Wow. Yeah. That's like. Yeah. I look back with my dad, he had chronic fatigue syndrome before it. Chronic fatigue syndrome.

And then he got demented very quickly. And it was just. I can make that tight into the chair in the hospital was, please let me die, you know. Oh, and, yeah, it's.

And I'm sure we're. Yeah. Because our whole family's infected with you, you know? So I know we, had a long. So they had it, so obviously he had it. My mom just sweated like crazy all the time.

Yeah. It's like we were the sweaters. Oh, yeah. Yeah, and I was. I have, like, you know, half my body would sweat and would be freezing, you know, it's like, Yeah, crazy.

But, let's see. So you've kind of kind of gone through everything, so, you know, your approach and just love it. And, and how really this concussive syndrome everyone thinks is just simple and gets hit, hard enough.

You get concussed, you know, and then you get this post traumatic brain syndrome, you know, and it's asking a lot of people can like people to know where their liver is.

They don't know how Tylenol works, let alone the brain, which, you know, took me seven years of residency, four years of studying neuroscience, four years of studying physics, you know, and a lot of hidden misses to even get a global, I think, understanding of how some of it works.

And so now we're asking people to sort of make that advancement. And no one can do that. But I do think there has to be people that understand the whole system.

They don't subspecialties. Hell, I can operate through a tiny tube. I can put in a ton of screws, I can take out a brain tumor. You know, that's that's great.

And God bless you, University of Miami, for giving me that power. But there were people I couldn't fix because I couldn't understand what's wrong with them.

And I was helpless. And there were people I'd fixed perfectly with perfect scans and they'd still hurt. And guess what? There was one person. She was a nurse in her 40s, got sicker and sicker, sicker.

And she had metal losses from the hardware in her back, and she had mold in her bathroom. And this was a back patient. So I said, move out of your house.

Let me take out the hardware. And all of her. There were systemic symptoms, not pain. You know, the whole body pain, brain fog. Then I'm like, Holy crap.

Like, I'm so monocular. I'm just putting in screws. I'm missing the picture. Like I'm missing with my dad. Like everyone missed it in me. For 30 years, I was bent by tech like every week.

I had the worst anxiety. I had the worst A. D. D., I had muscle cramps my whole life. My testosterone level was below 200. I was 14, like I was a disaster.

So what did I do? I just set up, I don't know. While this is happening, I'll just work harder. I won't sleep or study really hard. I'll lift weights every day. I'll play every sport.

And you know, I'll hope that some girl likes me someday, okay? You know, and you kind of get through it and I got some good fabric. But at the end of the day, man, I was my whole life.

If one of weight vest and my weight vest after I was treated by Doctor Caitlin or Doctor Carnahan. Doctor. Sorry. You know, this Doctor Melamed, this veil lifted, and it was like, oh, this is what people are.

Oh, okay. You're like, damn, that's a lot easier. I got a lot of dates. Yeah. You know, it's true. I think most people in so-called whatever we are, you know, integrative medicine mostly I they been sick themselves and realized they were evidence based and but realize, hey, something's not working in this whole system.

And they look elsewhere. And that's how I got it's like I would say 80% or so. Yeah. You know, when I was a well, I'm still a neurosurgeon, but you have a someone come in and you know what it says, 40 year old with fibromyalgia, chronic fatigue syndrome, low back pain.

They fill out the pain score. And you look at their body and everything's a ten, you know, and there's some little desk that some doctor wants me to take out because they don't know what to do with her.

And she's on OxyContin and Suboxone, all that crap. Right. You know, this patient, the first thing you do is get nauseous going in there because you know you're not going to make them better.

You know, you're just a surgeon, but you know, this person needs help and they probably have Sibo, gut dysbiosis. They have some autoimmune disease. They have a high viral load.

They have all of these things. I my 15 minutes I'm for the Medicare. I can't do it. I'll say yes. No. Well it's not about I'm doing my job. The problem is who's really going to look at that person?

Who is the one that takes the time and says, oh, look, we need to really look into this stuff. Well, then you run to an economic issue. But but the point is, there's no one just saying you're okay.

You have a chronic disease. Here's at least the places to look at to make decisions. You know, there's no you that there's no quarterback. And that's a problem for all the patients.

The doctors say, yeah, you talked to five different doctors, six different opinions, and they're confused. They're so stressed. It's not what is this about?

This is this or you know, and then they go to Doctor Hoffman and shop and, and you know, have a bad experience and but you know, the time they reached, 16, 15 people and in the, in the study that we, we did 15 years ago, they saw on average 7.2 physicians Improvement.

Now I think it's like 15, 20, you know. Yeah. And and they're leery and they're knowledgeable. Yeah. And which is good. But I think there's just you know before the internet and stuff I remember yeah.

Having to go to the library and go find that damn article sticking on the, and someone took that one article or whatever. Now it's just an overload of information.

So you gotta start out what's good, what's bad. I tell people, go on the internet, it's great. And then they ask me, well, sort it out. Like a lot of doctors don't read the internet. What?

I'm a doctor here. Run from that doctor. Yeah, I'm convinced now that you need a chosen like minded or like. Or or doctors or intellects have the same goal, into some group.

And that group, on its own volition, enters a chat room and has problems, and it's almost like we're all on call for each other, you know, like, okay, this for, oh, it's a brain problem.

You know, there was a one about pseudo tumor. You know, I'm like, I know all about it. And I know the functional medicine piece, like, let me help this person out.

And even if they only execute 1 or 2 things, if nothing helped, we truly made a difference. And like you're you're heuristically getting to the answer.

Like when you say peptide for this it I got you. I'm trying it like because I trust you. It's the same thing with anyone

on that call. Yeah. And they're very honest.

And I think that you need clusters of these and the velocity of information that's good information and effective n equals one. I think that's the way to set up medicine.

Yeah. You know I think it's very profound. And it's and it seems like everyone's getting sicker and sicker, like, you talk about this whole toxic burden and toxic brain and, so I think we're we're in trouble.

Oh, heck, a lot of stuff. I think you're going to be very busy. Yeah, well, with the with the sick, when this ship sinks, I'm. I'm going to be trying to weight water for as long as they can, so, Yeah.

That's great. Well, Let's see anything else? I think we've covered so many great areas, and I think it's just such great information for everyone. How do they find you again?

So go on my website. It's WW, uw my resilience. Kokum. There'll be numbers and things to fill out. There's a nice video, you know, and, and website, it's a private membership that has prices.

We take insurances for particular things, but we provide the full cycle of care. And that would include exercises, brain, you know, and we give access to doctors.

So I got people come in and they got a shoulder problem. I get them to the best ortho, you know. So you kind of have that, you know you have self referrals.

Now if they fly in can you do part of that telemedicine. Yeah. So we have everything set up virtual in fact like we had people on the East Coast, we send our vaccinated phlebotomist to them.

We do virtual intakes. We can even do virtual kinetic testing. People can be with their cell phone, put it in their pocket, do types of squats and movements, and you can actually get what's called a behavior signature of someone state.

We work with Harvard. This, Phoebe, it's a new company that looks at behavioral signatures that get tracked through their cell phones. But long story short, and we can deploy the plan remotely.

We'll call an ivy place around where you live. We'll send you the compounded pharmacy stuff, which we're sending a lot of your stuff. Your products are amazing.

Got the Cfpb as as as worked well, on one of our patients. Thank you for that help. Got my dad on Cerebro Prep or, you know, throwing a couple Hail Marys his way.

I got him on double dose there, but my point was, Yeah, we deploy it and we become your virtual, you know, omnipotent health wife or husband. Nice. I love it, I love it, hammer.

I'm gonna go. I'm going to call the number and, Good, good. Yeah. Check it out, man. I think you'll love the people. It's all about us communicating with each other.

And it's about people learning and learning about themselves and hope we make a difference one day and we win. And I don't think my brain still. Right.

I mean, I still, you know, terrific insomnia, you know, and, still memories. So much better. I mean, it was like like I could not take. I've failed Alzheimer's disease.

Yeah, but, you need all of your highways tested. Yeah. And so you can have a picture and be like, now you understand the why? For the sleep. Maybe it's a vestibular problem.

Maybe that needs vestibular rehab, which you do at home. Right? Maybe you need neurofeedback because there's

a couple parts of your brain that despite all you did good for that software problem.

You left a hardware problem. Well, you needed electromagnetic fields or neurofeedback to start stimulating and potentiated that in a way that's data driven.

And so that you can do a brain map neurofeedback, check on sleep brain map. Look, it's all right now, buddy, and you're sleeping. Well, it's the same thing for anything.

It's trial and error with good clinical oversight and academic intentions. Yeah. No, I love it. Yeah. Because, And you that the depth of testing you're able to do, you know, you know, I love it.

Yeah, buddy. All right, man, hey, thank you so much. Just, just love the information. And you're outside the box and just just our whole global thinking.

I love it. So, thank you. And, always, always good talking. Yeah. Okay. So, so I'd appreciate it. And, you'll probably see my paperwork come by. Yeah.

Appreciate all your knowledge. You you helped my practice out a lot. And for yourself and for those who sort of want the peptide view on concussion, I'll leave you saying I put everyone on BCP 157.

I put them all on TB frag phosphate, title choline, high dose and acetylcysteine. Ala and then the rest is sort of data driven. We're starting to use the cerebral prep that's kind of a new, you know, thing that, again, following your lead and we'll see how those things go.

And, but that's been great on it. Yeah, we'll have the data to see what it does. And how it works is we'll have testing pre and post everything. So, you know, love still collaborating with your buddy.

And thanks for having me. Sounds great. And thank you for doing this over again. Having no problem for the right gets me great thanks I do, I like.