Introduction to Epigenetics

I actually love epigenetics. It's something that we all are impacted by, whether we know it or not. Each and every moment of every single day. And the easy way to understand it is that epigenetics is really the science of how our outer world is communicating to our inner world.

So that's kind of super, super simple way to think about it. But why we really need to care about it is that at our foundation, we have kind of this human blueprint, our genetic DNA blueprint.

But our our genes are not our destiny. They're just our potential. And what happens is that laying there, I like to think of it kind of like ingredients to your favorite recipe that you want to make.

Ingredients by themselves means nothing, right? It's it's how are you going to mix those ingredients in a precise way that will actually determine if you're going to have a tasty treat or something that's, you know, like rock hard.

You got to throw it in the garbage, right? And so when we think of epigenetics, it's the signals, the input, the information. It comes from the outer world, the foods we eat, the thoughts we think, the air we breathe, the the environment that we are interfacing with, sending in signals to our inner world that then communicates to basically say this is safe or not, this is a good environment or an or an unhealthy environment.

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.

In each episode, we'll bring you the latest insights from leading health experts, medical innovators, and wellness warriors. If you're seeking to transform your health journey, or if you're looking for answers to burning questions.

You've come to the right place. Get ready to unlock the secrets of lifelong health and vitality. This is Doctor Talks, real talk from real doctors on the issues that matter to you most.

Hello, this doctor Kent Holter with another episode. Today we'll be interviewing Doctor Melissa Peterson. On, epigenetics and peptides, the ultimate combo for a healthy brain.

Doctor Melissa, Gil Peterson is a chief nonmetallic, limitless officer at appear on zo and director, appear on academy and epigenetic coaching. She is sought out, for, cognitive optimization.

Epigenetics is the success coach, author and speaker and more than 20 years and has been, supporting purpose driven visionaries to express their limitless potential and, experience the highest success and outcomes so they can love, lead, and live life to the fullest while making their authentic impact in the world.

So she does it for the top people in the world. But also, heck, it works for you. You know who doesn't need that?

Meet the Guest and Episode Overview

She's licensed. Great. As a doctor of chiropractic and epigenetic human performance. Performance success. Coach who is board certified in holistic health with a master's in wellness, leadership and performance.

She has dedicated, dedicated her career to uplift, inspire and, and enhance states of health, well-being and human flourishing across the planet. Very cool.

Taking a systems based approach by, providing precision performance care doctor balance that leverages genetics, epigenetics and won't ask for the difference between all those peak performance and mindset mastery.

Along with the most advanced neuro and, psychosocial, insights, like psychological modalities, together with her clients, she helps to create a synergistic approach to, infinitely expanding one's capacity for success and facets of life.

So she seems to do the whole ball of wax and really get your brain working and show you how to use it. Yes. There you go. Oh, and thank you for being on the summit.

Really looking forward to speaking and hearing about all the very cool stuff that you're doing. And you're really on the cutting edge. And I think a lot of this is the way of the future.

Thank you so much, doc. It's really an honor to be here with you today. So congratulations. And, and we'll we'll get going. Yeah. So what the heck is epigenetics?

And and why the heck do I want to know? I like it? Hey, let's just get right down to the brass tacks here. So I actually love epigenetics. It's something that we all are impacted by whether we know it or not.

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And based on what's happening out here, we need to respond accordingly in here. Because of course, what is our body always trying to do? Number one main thing keep us alive, right.

So there's this constant kind of back and forth of are we thriving or are we not? And what do we need to do? What do we need to dial up or dial down to respond to that outer world?

And and so I think it's very true. And you look at, you know, people say, oh, there's a genetic cause and diabetes, you know, it's genetic or is it environmental?

Genes, Environment, and Personalized Health

And, you know, I think a very few things are not one or that they're both, you know, you can have a genetic predisposition, you can have a severe genetic predisposition.

You gotta work really hard to keep that from happening. And again, I think, you know, we're moving and people doing, you know, like genetics where they think, oh, I got this gene, I'm going to get it.

But the key is, is that you can turn these genes on, turn them off. Absolutely. And we're learning more and more about that. And that's really, really important for everybody to really understand because there's still a lot of confusion in the marketplace.

We have been told the story that genes are our destiny. And if you've got it, you've got it. And that's absolutely not

the case. Again, all your genes are are coding, coding of potential.

It's what do you do with that potential. What do you do with that code and what determines that is how we're showing up for life every day. And you know, you just mentioned diabetes.

According to my genetic phenotype, I actually have an increase increased probability for insulin resistance. So insulin insufficiency. Yet my A1 c is 5.0.

You know my glucose is 83. Yeah. You don't think I give a problem and and right. And so even though I have the genetic potential how I live is negating that.

So I'm keeping that turned off or dial down. Now if I were sitting every day and eating lots of sugars in cakes and sodas and not moving, you know, then I would absolutely be activating that.

And so then my genetic potential would in fact become my reality. And yet, the good news is we can always be in control. Once we know, then we can be at choice.

All right. Well, so maybe I do need to change some of the things I'm eating because I really want to be ultimately feeling my best, looking my best, living as long as I can as well as I can.

And I think it's really nice. I tell people, too, it's like people take all these supplements, hey, this is good for you. Well, yeah, maybe, you know, I can give you a thousand things that could be good for you, but what is going to really impact your health?

And so you can really target the things that you need. And, I like to hear your, your thoughts. And I found we've been, you know, been doing this and even for myself, I have some terrible genes.

I kind of do that without testing, but, the genes that I had the, you know, the, the abnormal snips in and issues with, that's where I had the problems.

Yeah. No. Yeah. And and isn't it interesting? Right. Like, we kind of get a sense, we get that gut feeling almost of like, I naturally, over time stumbled into my optimized nutrition plan, and I didn't do it by following a fad diet.

I just kind of, you know, innately listened over time. I did a lot of wrong things earlier on, and when I finally got my genetic report, it was like, I'm eating exactly right for my genetic potential.

But is that same thing like I the more I listened, I kind of had that, that knowing, like I really feel like it's the I feel better when I do more of this and less of this, and it works in the other way too, right?

Like, I feel worse when I do more of this and less of this. So I think it's totally true. And I ended up on my island 70% of the things that they recommended.

And I kind of just let the other stuff, you know, go on the wayside because, you know, of course, we all have our, you know, hundreds of supplements that we all try and you all, you know, yeah, the studies are good, but I don't know, it just doesn't seem right.

And I find that, you know, people will put people on a lot of things. They tend to just go off of things. Yeah, that don't work or they don't seem to make a difference.

And you know, the doctor. No. This study shows that this is good for you. But you're not a study. You're not a study. Exactly. And that's why I love what I do, because I take a very bio individualized approach, because when we can look at somebody, it's not only their blueprint.

Right. And we'll get into talking, making this connection into the brain, because the brain and the body are all interconnected. And yet. So I can start with a blueprint, I can layer in, I can go ahead and layer in, biomarkers.

I can look at labs, I can look at blood pressure, I can look at HIV. Then I can layer in biometrics. And I can already see, well, based on your genotype and your phenotype, you have an in you have a, a propensity that you would do well with X, Y and Z supplements. Right.

But then I can get even more precise and now take an exact look. I can run a micronutrient test. I can look at lab values and I can see, are you in fact deficient?

And you have an increased need for this. We absolutely need to formulate that you, on this specific regimen versus the next person is going to need something totally different.

So while we have all been raised in kind of a time from a traditional lens, you know, population based studies and taking kind of this group approach and trying to learn all and we can learn a lot from population based studies.

Yes, there's a big picture out there. And yeah, exactly to your point, not a single one of us is a study. And even if vitamin B12 is good for both of us, right, the form that you may need it in versus the form that I may need it in could be totally different.

And so it's just really, really fascinating how we, we are in a time where we don't have to guess anymore. If we choose to, we can dial in, we can learn a lot about ourselves, and we don't have to feel overwhelmed as the client.

Right? Because it can be super confusing. What's the next fad diet? What's the next study? What's the next this or that? Yet we have we're in a time where science and technology are rapidly converging.

And so what we're able to now see and know and understand and apply, if we choose, can radically transform the expression of our health and our vitality and our well-being.

Yeah. Just because it works for Kim Kardashian doesn't mean it's going to work for you. Right? Right. And and it is interesting why it's like you know, treating these multi-system, chronic illnesses, you know, people read a line in this person, miraculous recovery from some, you know, nutrient or but everyone's like taking it like, hey, that's it happened, you know, well, there's a reason, you know, and, so very interesting stuff.

So let's talk about the brain. How how do you specifically use it for the brain? And again, I'm very interested in this because as like we mentioned, before, by the way, I had the worst memory of anyone I've ever met, starting out and from day one.

So I've had to do tricks today. It's interesting. I can remember medical studies. I can remember any that because I think it's you have like different connections.

It all makes sense and I'm interested. I'm super A. D. D. too. So it's like, if I'm not interested, I don't remember. So, like, we'll go out to dinner with someone and, like, my girlfriend will say, oh, remember them, like, never met them before in my life.

You know, we can tell how interested you really were. Yeah, yeah. So it's it's it's embarrassing. So I, I got to come see you and, Yeah, but. Yeah, that's what I love about evaluate someone who says I have no memory problems.

I know I can't concentrate, I can't think or or what, what type of people usually see, I know you you normally teach the teachers. Yeah. Yeah, I do teach the teachers.

I am the coach of the coach, and a doc to many docs. And yet with the I, I only work on a referral base or in a situation like this, you know, this would be a referral based, where somebody reaches out and I first, you know, I take a very small amount of clients in because I want to make sure that I'm the right fit for them, and they're the right fit for the process that we're going to approach, because I always want to meet and exceed the expectations.

And what I mean by that is if somebody truly just thinks that optimizing cognitive function and performance can be done with one pill or one supplement or one this or one that, that is very, very, very rarely the case.

Many of us want the outcome without the work is the wrong word, but without the participation. Right. So I guess, by your question, you know, what's that?

I gotta stop my Skittles for breakfast. Yeah, yeah, yeah, that would be a good first start. All right. And that is an important place to start, right?

Is that. And so here's what I've learned after many years in clinical practice that look I know food is personal for all of us. Right. And the last thing that we want to do when we go to a provider is be told all the things that we can't do.

And in fact, that's one of the prohibitive steps for many people. They're like, well, I'm not going to go because I'm just afraid of all the things they're going to tell me I've got to stop doing.

And so, you know, if we want to get anywhere, it's where are we at? Where do we really want to be, and what are we truly willing to do to support ourselves to get there?

And so when I work with a client, first and foremost, I'm going to do a deep dive on lifestyle assessment, on social history, on health history. We're going to be looking at kind of all the variables that they have an awareness of, of how they're already interacting with kind of day to day actions and habits.

And food is a piece of it 100%, because of the type of client that I work with. Again, a lot of professionals and high performers, a lot of these individuals have a lot of responsibilities on them, which I know that you do.

Right. You run a busy practice, you see a lot of clients. You've got a lot on your shoulders. And so that means that you're already running. You're exerting a lot of energy.

Well, the brain uses the most energy in the body.

Brain Health, Stress, and Cognitive Optimization

And one of the foundational places for many of us that we are a bit out of balance because we don't connect the dots and we don't recognize it, is that we're not really fueling ourselves in the right way for optimal brain function.

We're not hydrating ourselves in optimal way. I mean, the brain is, depending on what you read and research, 75 to 80% water and you know the body is about 70% water and hydration.

You would be amazed at what a simple, simple step that can be in just improving cognitive performance. Yet it does is is mostly water. So that's good.

But what that, that, how do you think? I think nowadays, too, I think myself, you know, I think there's two key things and, and I know I'm the biggest hypocrite, in terms of, okay, stress and get good sleep.

I have up till 530 in the morning getting. I've gotten two hours, three hours sleep for the whole week, every night, and then. So I can't go and tell someone. Yeah.

Or what? You know, what about how do you what do you tell someone with stress? Okay, stop being stressed. Yeah. So. Well, you can't just stop stressed. Right.

And so and that's really let's just say that that's one of the entry points. Because if all of a sudden we are having a hard time remembering, we're feeling a bit more anxious than usual, we're not sleeping as deeply and as well.

Not waking up feeling as rested, feeling a bit more foggy brain throughout the day. It's almost like we've got to push harder, right? We still have all the same things we got to do, but we're just kind of pushing a little bit harder and things just aren't happening as fluidly, as effortlessly as they once were.

And so let's just say let's just call it stress as one of the main precipitates of this. And and stress is physical, mental,

chemical, emotional and environmental.

It comes in different ways. But let's think of it for the simplicity of the the conversation today. It's an overload to the system. Okay. It is it is something that the system has perceived as a threat because it's not getting its basic needs met in the right way.

So now all of a sudden, if it's too much or not enough, this is a this is an issue to to how things are supposed to work internally in the body. So yes, people come in with stress and I can't just go, oh, doc, just take a chill pill, just breathe.

Just relax and be like, okay, that'd be nice. There's so much more at play. And typically one of the first things that happen is, is we get way out of balance between our sympathetic fight or flight and our parasympathetic rest and digest parts of the the central nervous system.

And think of this like a light switch. It can either be on or off. It can't be a dimmer switch that's somewhere in between. So the gas pedal is on that we're stressed and and that to the system again for simple understanding means fighting and fighting.

We got stuff to do or get rid of or get away from or you know, deal with. Then we can't be resting and digesting and where we rest and digest is where we repair, where we restore and where we revitalize.

And so if we're always having the foot of, you know, on the pedal, full throttle in that sympathetic, dominant, we are completely out of balance with our ability to heal.

So here's here's how I look at this doc, is that I always think kind of an a triage, immediate short term, long term. So it's a pairing of where are you at and what's essential.

Like you may have this big vision of where you want to go, but like what's immediate right now, what is the most important thing to you right now that we've got to determine if we can get you there?

And what are you willing to do? How are you willing to show up for you? So hypothetically, if I all of a sudden find that you're drinking all sorts of you're just drinking caffeine all day long, Coke zero's, you know, coffee, whatever, and you're taking in zero water.

And if you're not even willing to start with the water, you know, like, I'm sorry, I'm not. I can do a lot of good things. Yet. You are participatory because we can always do short term fixes.

Right. But it's. Do we want a Band-Aid? Do we want a short term fix, or do we really want a long term both. Correction and here this this is really, really important.

We've all so many of us are so busy trying to get away from the pain or the problem that the moment that we feel like, oh, I'm out of that danger zone a little bit, we let our foot off the gas.

We're like, okay, all right, but we just come back to baseline. We don't really think. We always think that the journey is trying to get away from the problem and just get to base, and we don't really realize that there can be more so in the land of how I work with my clients.

It's in this kind of spectrum from unbalanced all the way over to enhanced, and homeostasis is right here in the center. So depending on where my clients come in and, and where they're at and where they want to be and how quickly they want to get there is going to be where I determine, you know, what do we need to do to first get you to baseline?

Because first we got to get you back to homeostasis. We do have to regulate that stress response. So I am going to bring in neuro technologies. We're going to bring in biofeedback and neurofeedback and neuromodulation therapies.

I'm going to go ahead and utilize, you know, some of my tricks in my toolbelt as a practitioner as I'm thinking, what can I do if you're my client and I'm saying yes and committing to you and you're committing to you, then I want to do everything in my power to genuinely get you that result as quickly as I can, and as comprehensively as I can.

So that means if I know that the work we have to do, and I always start with a brain map, and I'm able to see what's happening with your brainwaves and how they're shifting.

So sometimes we have we have a neurotransmitter imbalance. Sometimes we have, an issue where the brain waves and how they're they're like gears, gear shift, brain, mapping.

Do you use. Yeah. So I use I do Q EEG brain mapping. And so we're going to look at either a 12 or 19 point analysis depending on kind of how the clients presenting.

But we're going to go ahead and map all the brainwave frequencies across the brain. And then it's going to allow me to see where you're at. So beta is your busy wakeful brain.

Alpha is kind of that flow state. Theta is where we start moving into more of a sleep state, and that's the state of imagination, deep creativity, deep trance.

And then we get down into Delta, which is deep sleep. Now many people are just not able to gear shift. And so these frequency all have a different speed and they're appropriate at different times.

But with anxiety especially, we have in a lot again, a lot of high stress people, high tasks, people coming in to work with me are really having some insufficiencies moving between beta and alpha.

And then they're really not sleeping, right. So getting down into proper theta delta, but they're stuck up in these high ends of their busy brain. And so we have to work in stages to begin to retrain the brain.

And this is something that's really beautiful, is that the brain is like a muscle. And there is something that's called neuroplasticity. We can create new pathways, right.

We can enhance what's there. So if we think about I go to the gym and I'm going to workout, I'm going to enhance my muscle neurotechnology is neuro therapies allow us to do that same type of action within the brain.

Yet that doesn't happen in one treatment. Right? So that's where I like to then look and say, okay, what's in my toolbelt? And specifically with peptides, one of the things that I'll, one of the things I'll defer to is going to be Cmax.

And I can kind of bring that in as a, as a really quick hit. Right. To support to support both immediate short and long term effects of what we're doing with the brain training and the brain stimulation optimization.

That's just an example. And what I did, my brain mapping, I was done. The guy says, do you sleep? And can you remember anything? You know, so it's like right there, but it's right there.

Yeah. The brain peptides I think are huge area. And we love them. Can you you mentioned Cmax mentioned a little bit what they mean. Not there's so many you know, these and they do so many things.

They do. Yeah they do. And I love you know I love the research that's out there. And so we're seeing kind of there's and there's a lot within the the cognitive department of of peptides. Right.

So some are really helping with healing repair of trauma, neuro degeneration. And then we look at other sides of it, which is like what I love with, you know, C Max is it's helping to improve memory function.

It's helping with kind of that stress and that that anxiousness, that ADHD type of, response. And and it does it has this very, neuroprotective, if you will, component with increasing the Bdnf in the brain.

Right. So we look and we can see in the studies these increases in, in profusion in health and function and in increasing, neurotransmitters and in helping with these pathways, with being able to really be neuroprotective over time.

And so, so one of the ones I and there's, there's a bunch of different things, but something that I will defer to a lot. And you and I were chatting about this before we started, which is BPC 157 and some people look at that is really for gut health and or as body protective compounds.

Right. It's kind of this whole body protective. Of course there's great research on that of of the role it can play with soft tissue injury. There's great research around what it can do with gut lining.

So if there's, you know, any kind of, of gut permeability, but with the role of cognitive performance, it's there's this connection between the gut and the brain.

And, you know, so with the, the blood brain barrier, that kind of the communication goes immediately two ways. And so depending and and this is important to say is that at least from where I stand, because I take a very precision based approach, there isn't a one size fits all.

And so I'm not going to just use BPC on everybody. Right? I have clients that I don't use and I have clients that I do use, and I have clients that have nothing to do.

They're not coming to me for brain optimization. They're working with me, you know, on other areas. And we're working on the gut because the gut is a foundational pathway in the whole health of our body.

And I could we could have a whole conversation just about that. I'm sure you're going to have guests that are talking a lot about bridges and, you know, with PPC or I'll that in a gut, but it's shown to work for traumatic brain injury.

You know, it works systemically at potent doses as injectable people. People just don't don't seem they don't know whether it's the gut brain axis. Do you know, fat or, you know, or actually a direct effect, but it looks like both.

But and, you know, showing you preventing traumatic brain injury and also time some data for and we use actually active fragment that's orally available.

Because standard thymus beta four, which is a thymic protein, is not absorbable orally, but an active fragment that does everything that Tb4 does except stimulate mast cells.

That's good thing. It absorbs whole and, you know, has all the systemic effects and so many studies showing, you know, helping the heart, the brain. I mean, yeah, there's there's so many tools in the toolbox with the peptide.

There really are. And, and I think that's what's so exciting about peptide therapy because it is a tool in the toolbox. And, you know, I like to explain them as keys to very specific locks because they are exact.

You right there. So with these peptide, you know, when we when we look at kind of the peptide structure, right, is the amino acid sequence chain. Like we have seven, we have eight, we have 27, we have 47.

Whatever. We've got these depending on what it is, it is just an exact key to unlock specific pathways. And they're naturally occurring to the body. And so this becomes incredibly disruptive to the pharmaceutical world because it's not a synthetic.

It is a naturally occurring which means the body identifies it, understands what it is. And so the effectiveness of peptides, you know, and that's why we're just seeing such a massive, kind of growth.

Of course, they've been around for many years, but the conversation keeps growing and growing, and the public is wanting more accessibility to it because they're safe with minimal to no side effects.

Right. And and highly, highly effective in what they're doing within the body, which is why they want to shut them down. Big pharma.

Peptides for Brain and Body Support

And I think what what you said, they said they have a pathway where you take a drug, it usually has a specific effect where the peptides will stimulate a pathway of healing.

So you get multiple effects where the drug is into one thing and then, you know, but it also that so many side effects is doing the one things that have setting down or on the natural pathway.

And I think this is something that's hard for, you know, unless we specifically decide we have a passion for medicine, health and wellness and go down that route.

We don't get an instruction manual on how this body works. Right. And so the understanding many of us don't have an appreciation for why we would we take the things that we would take, why we need to, why we need to eat certain foods or not eat others, why we need to drink water, why we need to, you know, consider a peptide versus a pharmaceutical.

And I love what you just said, that it's pathways versus a very specific. So of course with medications it's going to again turn something on off block it shunt it.

Right. It's going to try to trump the system. It's going to try to say no, you don't see this or you do see this. And the peptide is is again, think of it as opening the right pathways so that functions can occur.

Because most functions in the body, they are a pathway or a chain effect. It's it's a bunch of think of it like a bunch of helpers. And each person, like all of a sudden I'm kind of seeing like we're passing, you know, like when they would try to stop a dam or something.

There's a line and people are turning buckets to the next person, to the next person to get the water. But in our bodies, we have these helpers, like one person sending the signal to the next.

And then that converts into the next and into the next, into the next to get the outcome. Yeah. And so that's like time the head person to do this and everyone does it.

Or the drugs will pick out one person to do the thing. Yes. Exactly. So you're going to get a more comprehensive support to the entire, you know, aspect of the system with it.

And so that's why there's so many benefits. Like for most of they gave at, you know, a thousand times a dose, they can't find a toxic dose. Try that with Tylenol. You're dead. Right.

Right. Dry with water. You're dead. You know. So, yeah, it's interesting how safe they are. Then doctors get very, you know, they confuse the nervous.

And it's kind of you can't screw up because, you know, and that's what's really nice. You can't screw up and it does. You know, we all come into the role as a provider and a clinician because we do want to give and love and serve and truly help our fellow, you know, woman and man to express their greatest health and well-being.

And yet, the reality is we live in a world where if something goes wrong, then our are we the one at fault. And so there is this really interesting kind of we want we've took an oath to do no harm. Right.

And so we want and that's what I love about peptides is that there is this kind of inherent safety net built in, again, because it is already the exact sequencing used by the body.

It's it is more supportive in its process. So I think it gives us as providers greater peace of mind, greater certainty.

And, and that helps us to have confidence about the way that we can support our clients and our patients.

And that's always what it's all about. Very great. And, other peptides that you like for brain, you know, because I'll tell you, because of some of the, the work that I do running.

So I've got work in my, my centers. So some of the other ones that I'll pull to specifically around, kind of cognitive optimization is going to be see, like, I'll do we I have definitely used, three of our license that you mentioned.

Be like, what? What is what is healing. So, see, like, typically it's in a nasal spray and that that's going to really help for more of a calming effect.

And it's great for people that have been, you know, that maybe, have been on, benzos. They've got to make a transition off. But what's beautiful is the effect that it has on the system.

So when we're thinking about the brain, we're thinking about an overactive or overstimulated brain. We what we need to help calm it is going to be the neurotransmitter Gaba.

And so we'll see, like, specifically it's really Gaba binding. So it's going to actually help to in essence increase the availability of Gaba to that overactive brain.

So it's very calming. It doesn't have any side effects. It doesn't produce any drowsiness. You know, it doesn't knock a person out. So it just really gives more of that calm brain.

It allows for focus. It allows. So it's, that's that's what I really like. So when I've got somebody that's got a really ramped up brain and this is an also where I pare things back to their genetics because, believe it or not.

So one of the phenotypes, there's a variant called the Gad one variant. And there is a correlation of propensity that somebody with this particular phenotype is going to have an issue potentially.

Right. So it's all in the epigenetics of being able to convert the excitatory glutamate glutamic acid down to Gaba. And so certain foods are very high in this.

And so this is kind of now where we have this play of going well I can use a peptide to immediately elicit a response in the brain and help to calm that overactive brain.

And and what else can the client know. So then I like to take a multimodal I like to stack in. So all of a sudden if I see that they're eating foods that are high right in in this Gad one and this glutamic acid, then we're going to make a plan to be able to first be aware of it so that now we can evoke strategies to reduce, remove and or replace those types of foods.

And then in some cases, something even as easy as magnesium, glycine, I can support that as well. So it kind of ranges on the degree of severity. Like what?

Like NutraSweet. You know, all the, yeah, I, you know, I try I want to sit here and, and not come across in a really, you know, harsh way. I have my own opinions about all those neurotoxins.

There's the word of all the other fish. So sort of interesting story on that is that I developed the worst stuttering problem you can imagine. I could not carry a phone.

I couldn't say hello at, you know, and then I was going to go to this clinic in Irvine, which actually turned out to be run by a guy who did all my rotations with in medical school.

Then I read a study on NutraSweet, you know, causing stuttering because it is an insider toxin. It's addictive. It's hard to get off. And so I stopped two weeks later, I don't stutter.

And, you know, if I accidentally get I switched from start box and whatever the skinny, like their, artificial stuff to Coffee Bean and they use NutraSweet.

Splenda. And so I got some. And then about two days later, I start stuttering. I'm like, what's going on? So it really shows that neurotoxin, you know, type thing excite or toxin.

Exactly. And what's happening, you know, even something as simple as caffeine. And many of us love caffeine. Don't take our caffeine away. Right. I, a slow metabolism, and I didn't know that.

I mean, I could have told you kind of going back to earlier in our conversation, that gut feeling I would on days that I would have a lot, or if I would have it later in the day, I would notice I get like this really low grade headache, kind of at the back, you know, the occipital region.

I'd always be like, oh, I've had too much coffee because that was that was when I would feel it. Well, it wasn't until later, get my report and oh, I'm a slow metabolism.

Isn't that interesting? Yeah. But here's the thing. If I didn't know that, and I was a person that was drinking coffee all day, guess what that's going to do.

It's not going to break down and leave my system. It is going to be more stimulatory excitatory. So all of a sudden if I'm not sleeping, if I'm feeling anxious, right, and I'm not connecting the dots, and that's what happens.

We're all living in busy, full lives. Something by itself seems benign, right? Yeah. I had some coffee. I drink coffee at 3:00 am, I drink. I picked. Yeah, right.

But if I'm a slow metabolize or drinking coffee at 3:00 and all of a sudden I'm trying to get to bed and I'm laying there wide eyed and, you know, busy brain still at midnight.

And I'm like, crap, I gotta wake up at 6 a.m.. That's going to be a real problem. And so all of these things start to stack and weigh on the system. But just the same way they stack up and create these, you know, what do I want to say?

Kind of like a snowball vicious cycle, I think. Yeah. Everything in this is a vicious cycle. Yeah, it is, but we can also take them away. Right? So that's the difference in a good way.

I want everybody to really hear that. Like you totally have power. And and we also again we think it's got to all be overnight and everything now. But what's beautiful and I love I always give the example of compounding interest.

So you will win when you can do small, consistent actions over time. I would so much rather, you know, for a long time, years ago I did a lot with women's health around weight loss and thyroid and Hashimoto's and I did a ton around hormone optimization and, you know, and people and I think I know you do some of this in your clinic stocks.

We did a lot with HCG and all of it. And so, you know, people can dig in like, okay, I can get rid of all the crap and I'll eat 500 calories or whatever for X amount of time.

And then really bringing somebody back into a kind of normal what's, what's healthy eating like it, it would just not necessarily sustain. And so then people would get so in their head and I would just start to say, look, I just have four days, you know, have four days clean, one day off, four days clean one day off.

And I would explain because every 72 hours is the inflammatory cycle. Right. So if you can give an extra day you're going to actually get ahead and heal.

And I'm like some this now becomes almost the 8020 rule. Because if you can spend 80% of your days over the course of your year. So that means you and I did the math at one point.

But I'm just like, that's going to give you holidays, vacations, birthdays, special occasions. You can eat whatever the heck you want. I think if you try to make it perfect, can you mess up?

Oh forget it. You know, it's the people I go with the gym. And also we find where like for weight loss is they workout. People think they're not whatever and then they don't lose weight.

They forget like anything you know. So you got to make it. So they do. You mention one more cerebral icing. Yes. So cerebral icing, has a lot to do with, you know, there's, there's, with memory impairment.

And so there's a lot of research around the use and the effectiveness around just really bolstering memory. Any kind of TBI trauma. So if there's been trauma to the brain, if we think that there's a potential risk of Alzheimer's dementia, it's a really great one to utilize.

And so there is a portion of my population, I have a lot of my high performers that they will refer in their retired mothers. And it's beautiful. So it's like I love I love my, my client base.

And so I have, a percentage of my client base that are women in their late 60s, early 70s who they were professional women. They, you know, they they remember what it was like to, to live at a high level.

And the fact and they were smart and brilliant and their brains are just not keeping up the same way. And this is one that, that I've used a lot. And of course, there's been some changes recently.

And so with our compounding pharmacy and the FDA, we're not able to utilize that at this time.

Practical Steps for Better Brain Function

But it is one that I absolutely love. Yeah. It's very hard to get and I love it that it really helps me. And I've mentioned before, well, we're bringing it out as a supplement and the oral form is shown the studies to work, and change EEG patterns and that so that should be out with some other things as well.

So we're excited about that because yeah, I was like, okay, I got I gotta get this some call. Yeah. Or myself like rush, you know, and yeah. And trying to get it and yeah, the this the studies are great on, Alzheimer's patients.

What, what percent you treat like Alzheimer's. Parkinson's like neurodegenerative diseases. Yeah. So I, I, I don't do a lot of treatment of those patients because I, I do work more in the land of optimization.

So some of my right. So with some of my women that are again in the retirement years, they have more of a I'm concerned that what I'm exhibiting could be I'm starting to have early forgetfulness.

Right. Like they're not in that I have I've only had a very small percent, that I've worked with in the past that actually are Parkinson's and have had some outstanding results with.

And it's a it's always a multimodal approach. And I will say I wasn't doing peptides at that time, so I can't say specifically in regards to that, but really looking what's your thought if there haven't been on estrogen for, you know, 20 years? Oh.

So again from a on the spot there's. Yeah. Yeah. I mean for me it's I don't mean to make it a complicated answer, but I need to see more than just that.

Obviously that's going to be a component in it, especially for women. Right. Like that is very vital to their brain health. But then also what's that in relation to testosterone levels.

Right. Like what we need to look at a comprehensive picture to be able to understand how the system is, where it's at, what immediate support it needs.

And then how do we how do we, titrate that out or, or create really that plan over time? I really like that. And when you said, you know, a comprehensive picture, I tell patients and, you know, they go to the lab and there are still 35 tasks like, this is crazy.

This doctor doesn't know what he's doing, you know, whatever. Like now we do I want to paint a picture. You know, I want information. And then we can, you know, do the best treatment.

So let's say this is. Oh, I'm so sorry, doc. And obviously we love this conversation. And we can any time because I'll keep chatting clearly. But I would have, you know really everybody tuning in right now.

Think about if you are each of us are a biodynamic informatic organism like informational is what it's all about. Information is always coming in. So data labs, biometrics, right.

It's like all of this good stuff is data points that allow us as providers and clinicians to really hone in so we can the more we know, the more we can rule out, the more and or the more pieces that we can see where they connect and overlap, so that we can really zone in on that orb of probability so that we don't have to guess.

And that's really what it's all about. Because if you come to me and, and in a couple of weeks, you're not feeling significantly different, you're going to go, that doesn't work.

I'm on to the next thing. Yeah. The more if we can paint that picture and you can see where you're at in relation to where you want to be. And then one of the things that I do a lot is we constantly are assessing and monitoring, biometrics.

So I have a dashboard for my clients. And, you know, they're able to see where we're tracking their sleep and their deep sleep in their RV, and we're tracking their blood pressure, and we're tracking their body battery, their readiness for the day.

Are they depleted? And they're trying to push, you know, trying to do 60, miles and first gear. Right. And we need to get them all the way up to fourth gear so they are not burning out their engine, you know?

So the more that you can understand those data points. Yeah. And I think is the client too is I think people get so much information on Google and then they're just overwhelmed that they do nothing.

So woman 50 years old, you know, I can't stand I'm losing my keys all the time. What's my next step? Well, like I said, so next step. So let's think of some basic things.

First and foremost, right before we determine, am I really, having some potential, cognitive dysregulation? So let's just look at realizing how you interact in your daily world matters.

So the body is like a battery. So are you feeling it if you're if you're asking your body and your brain to perform. And the moment we open our eyes, we're asking it to perform tasks right.

Cognitive function, to make decisions, to assess information. So are we first and foremost fueling it? Are you eating ideally three meals a day. And let's just keep it general right now without knowing your your most preferred genetic diet type.

Let's just keep it safe. A nice kind of Mediterranean style. Each meal having some kind of a protein, some type of a complex carbohydrate veggie, and some type of a healthy fat.

So are we at least getting three meals a day? Are we hydrating right? Are we hydrating with water? So kind of the simple rule of thumb half our body weight in ounces should be clean, filtered water.

We do not need more than that. Unless we're really working out and, you know, depleting ourselves, so are we at least getting some of these minimum requirements?

Are we then? So once we look at some of those basics, are we resting? Do we do we get a good night's sleep and a good night's sleep. And just by looking at genetics.

Yeah, yeah. 7 to 9 hours is the range you know typically for most. So let's just say are you getting at least seven. I'm, I have the chronotype that I'm able to do better with less sleep but others need more.

So let's just pretend like minimum is seven ideally nine. Yeah. And you monitor their sleep. Absolutely 100%. What do you use an app. So most of my clients, I have them use the aura ring or, I'm a big proponent.

I have a Garmin. We do a Garmin a lot because they get some really great biometrics, but even something like a Fitbit, you know, or an Apple Watch does pretty good with being able to collect sleep data.

Some of the other markers that I might want to look at, I like to look at, through other devices. So so we're tracking and we want to see trends over time because just a weird one off night is not going to completely disrupt our system.

Right. So did the, forgetting where I put my keys. I'm feeling foggy brain. Is that a once in a while or is it becoming a common occurrence? Yeah. And then what are those things that you're doing each and every day that we might be able to make some super simple, obvious changes?

I'm literally working with a client right now that when I tell you she was not simple, so simple, not getting enough nutrients at all for the demands and our blood work, we're seeing that she's, you know, hypoglycemic.

She's too many blood, blood sugar spikes. She's not stabilized with it wasn't eating enough. And also she was drinking. She was micronutrient depleted.

So when we think about the brain and and we mentioned this a little bit ago, something as important yet as basic as magnesium. Magnesium helps to regulate more than 400 functions in the body.

Right. And a lot of them dealing with how nerves are firing, how signals are being communicated. And so we don't recognize that sometimes all we need to do is start with food, water, hydration.

And are we at least getting some sound micronutrients in now, let's say we're doing all those right things. Then we're going to go deeper. Then the next thing that we really want to look at is we do want to do a brain map, and we do want to do some foundational, lab.

I want to look at blood work. Right. Because do we have hormonal issues that are happening in there that are at play within this? Do we have, you know, inflammatory?

Do we have dysbiosis in the gut? Is there an issue between how the gut and the brain are talking? I'm going to map the brain. And that's going to tell me a lot.

I can already see by certain patterns, just like just like the doctor that said, are you sleeping? Are you remembering anything? Yeah, kind of right there in the maps.

Yeah. And then when we get that information, then we're able to determine how we can begin. And doc, here's the last thing I'll say, because that may sound like a lot, but one of the simplest things, simplest places that I start with all of my people because all of a sudden weight, food, rest.

But if I were eating, I was like, if I were doing all that, I wouldn't need you. Okay, so let's go. Even simpler back fact when we talked about sympathetic parasympathetic dysregulation, stress imbalance, which is what most of this begins with a little longer.

And chronic stress chronically ill they're just fight or flight. And yes. And then the more imbalanced our hormones become, the more our gut gets broken down, the more our immune system gets dysregulated. Everything falls

apart.

So if I only had one thing that I could tell somebody right now, I would say start with your breath and specifically what's called a state of coherence.

So a very simple biofeedback communication between the brain and the body is to start by simply focusing on your breath, breathing in and out through your nose, not your mouth.

Keep your mouth closed. So soft. Easy in and out breaths through the nose. And then as you're breathing in and out through the nose, you want to bring your awareness to your breath and envision as if that breath is actually moving in and out through the heart.

Now there are over two three decades worth of research on coherence, over at Hart Math Institute. And this very simple act, I will tell you on my Garmin, I've done this with my son.

I do this with my clients. I've done this with myself. I'll look down and I'll see my stress levels elevated. And so I will just take 60s and I will do exactly what I'm telling you to do.

And I'm not even going to tell you fancy breathing. We can go into all sorts of places with breathwork, but, for right now, just soft in and out through the nose, bring the awareness to the breath and imagine the breath is going in and out through the heart.

And then as you're feeling good with that, just focus on a neutral, feeling of appreciation. Just something that feels nice, neutral, all the way up to joyful.

And so I'll do that for 60s. And I've watched my stress levels go from 79, which is super high. I'm not often there, but when I get there, I get there all the way down to 19.

In 60s what is your wearing? A garment? Yes, and I my it's upstairs charging right now. I keep doing this because it's, you know I'm this red. Yeah I'm like g a little crazy.

Oh. I'm missing my data right now, but, but, yeah, I mean, any kind of device. But what I love about, you know, so a wearable piece of technology. Woop is a really, affordable band.

And they do a really good tracking of stress and hrb. So what I like about something like a Garmin is that I can real time look down and I can see my HRV, I can see my stress level, I can even see what's called my body battery, which is again, really looking at metrics that are showing my my energy availability.

And so what becomes super cool now about leveraging data and technology is I can go, okay, I'm forgetting my keys. My brain's foggy. I don't know what the heck it is. I don't know what to do.

I feel totally overwhelmed and feeling anxious. Like too many decisions, food, sleep, all that crap will overwhelm the heck out of anybody. It's a different world.

Like, you know, we. Yeah. So we used to write a letter sent in the mail. I'll wait for it or KP. Okay. We once a year chased by a Bay area. Now it's faxes, email your checking your iPhone all the time.

Yeah, it is constant. But you know, we have to be the ones to set our own boundaries. And the emails will still be there, right? They will.

Closing Thoughts and Where to Learn More

There's it. And it's it's a really interesting psychological process that we all go through. And kind of like, oh, I need to I need to pick up my phone.

What's going on? What's going on? Like, there's I mean, we're literally getting a, you know, in a freaking, serotonin hit every time. Like we're constantly shooting up when we click that darn phone.

Yeah. And so we're always in a stimulatory mode. But it is absolutely important just to remember that there's a balance. There's a balance to it all. We have to sleep.

We're programed or driven by these circadian rhythms. These on and off switch rest and digest. And I need to record just right that part. And I'm going to play it every night for myself.

We need that balance and we do that. So today I mean I could talk forever and I love this. Yeah I know I love talking and it's so interesting. I could I could keep going.

Where just very quickly where can listeners find out more. Yeah. So I think the easiest place doc melissa.com. So Jose yeah I'm just doc melissa.com. And you can find out anything there from you know working with me one on one to the work I do with up here on academy with our students.

And we teach peptide courses and so as people want to learn more about all the cool stuff you're bringing to the world, which is so great yet, as we wrap up today, I really want to thank you for your time for this platform.

And I hope that for anybody that's still listening and watching that, you remember that it begins with you each and every one of us. Like it has to. We have to pour into ourselves first so that we can pour into others.

Put the life vest on yourself first. Take a deep breath and it really does help. Doesn't have to be 20 things at once. You don't have to get it all right and all perfect.

But know that every moment that you are willing to care for you, to put you first, knowing that as you care for you, you can care for all the other people and places and things in your life that matter.

Well, that each moment is that compounding the fact that will continue to stack up more of what is good, more of what supports and enhances a thriving state for you?

So there we have. It just feels good. I feel calmer right now. Already. That's great. That's wonderful. I think it's great. A lot of great information for all the viewers.

I thank you for your time. You're doing, wonderful things. So, thanks for being on. It's my pleasure. Thank you. All right. Thank you for tuning in to Doctor Talks.

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