Harnessing Heart Rate Variability To Improve Parkinson's Outcomes Transcript

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Introduction to Heart Rate Variability

Welcome to the Parkinson's Solutions Summit 2.0. The summit. And introduce her to the world. Valerie is a part of the brain tuneup team at Shoreline Health neurology.

Functional medicine. Her. She, is a health coach. Life coach. Wears many hats. And we're going to talk specifically today about the role of heart rate variability in Parkinson's.

This is an area that she's very specialized and experienced in. And quite honestly, this is an area where we and she'll tell you a lot more. Here at Shoreline Health, we probably have uniquely a very large amount of data specifically on Parkinson's, which is an unique, situation, for this type of very important measure.

So I know she's got some important things to share, to share. And so, without further ado, Valerie. Charlene, welcome to the Parkinson's Solutions Summit.

Thank you. Doctor. Charlene, it's a pleasure to be here. So I've already thrown out a term, Valerie. Heart rate variability. And I'm sure that's, kind of a mouthful for a lot of folks.

can we just start out by talking about what is heart rate variability? Why is it important? So we can just simplify it down to the term RV, which people have heard, particularly people that do sports, they want to optimize their RV so that it increases their resilience and their strength.

So you can, take that same thing into dealing with a chronic disease. So it is a measure of our adaptability to how we respond to stressors in Parkinson's disease within itself is a big stressor.

You're dealing with symptoms, changes in your lifestyle, how you feel, energy levels. So in order to deal with these symptoms, minimize these systems by enhancing the coherence in your heart rate variability.

When you have more resilience and a way to adapt to things that are going on with you. So if something is heart rate variability than something that everyone has, I mean, even going back to the basics, what does it really mean to have a variable heart rate?

I mean, I, I don't have any heart disease. I have I put my finger on my pulse. It just feels even to me, you know. So do I have heart rate variability.

Does everybody have some degree of heart rate? Very. Everybody does. And it's an indicator of how your body is trying to find its way to homeostasis. so we will take a pulse for 30s.

And we say we have, you know, 72 beats a minute, but that's just an average. Our heart is beating, not like a metronome, but it's beating in response to how our physical body is moving, how our emotions are.

It responds to our thoughts. It's responding to the brain looking for homeostasis within the body.

How HRV Reflects Stress and Homeostasis

so they use an algorithm that we're looking at the way that the heart rate is the variable rate. And then we look at the spaces between the heart rate.

And with these algorithms, we can determine how much time you're spending in this sympathetic part of your nervous system, that fight or flight or that in your night stage.

And how much are you spending on the rest and heal side, which is very vital, nerve influenced. So the brain, if you just think about the brain, is a computer system.

You know, when a computer says you need hit ones and zeros in the brain's messages are unsafe from unsafe. So it's always trying to scan the environment to find a place of safety for us.

And as you and I have talked, finding homeostasis is its primary mission. And with a chronic disease, the brain found homeostasis. It's just that it can't operate at these higher functioning levels.

And it dropped and it had to let some systems go. So it's finding homeostasis at lower level balance functional medicines. We're increasing the foundation of health.

All of the data points that add to good health like good nutrition sleep is massive. You have to sleep good relationships, movements that brings the body into optimum functioning.

So the brain feels like it can be in homeostasis. Where in the. Brain is scanning your body all of the time and looking for symptoms of being at a homeostasis constantly, every millisecond scanning.

So it's looking for, you know, how much salt you have in your body, how much calcium, how much water. So it's determining what it needs to stay in that balance.

Then it's scanning your outward environment around you for safety. and since the brain resides inside your skull, it has to get the information second hand.

So it relies on sensory data from how we smell, touch. hear things right. And then when it gets that data that comes in from the outside, it doesn't really know what's going on.

Doctor Barrett uses an example of you can hear do it's memory, it's past experiences. And it go that's a lot like that screen door slamming. So I'm going to react to a screen door, which is much different than you would react from a gunshot.

That message to the brain in that reality that the brain puts on directly affects with the way that your heart rate variability operates. Because if you had thought you heard a gunshot, then it's going to put you in that sympathetic side of your nervous system and you're going to be ready to hide, run.

Right. But if you. And your are calm, we're safe. Right. So every millisecond the brain is scanning the body and it's scanning your outward environment, looking for balance and homeostasis.

So so when we. Go, please. So when we work with people, they have control to breathe their entire life and meditate and be mindful. So at nauseum we hear these words our whole life.

But do people do it. if you go to a yoga class or something, but I really haven't. I find that people really don't understand scientifically what happens.

So when you taking a deep breath and you really fill up your chest and you go all the way down into your belly, opening at the bottom of your ribcage and filling your belly, you're at the bottom of the lungs where the muscles are, and that's where the oxygenation takes place.

So you really have to breathe down like a toddler breathe through his belly to oxygenate your blood. So you pull in oxygen. It goes to the alveoli. It goes into one cell into the bloodstream.

It binds with hemoglobin to go on and oxygenate the cell so that the mitochondria work. And at the same time, the pH of the blood changes, produces carbolic acid and the CO2 is released.

so getting that complete breath of in and out. Takes care of the gas exchanges, which operates many other areas

in the brain as well. And also on every inhale you're activating your sympathetic or your energetic side of your nervous system.

You get a burst of norepinephrine to the front of your brain that's excitatory. Much like you can't pay attention, you naturally would take an inhale right?

But the breath out, particularly if you breathe your lips, stimulates the vagus nerve. And that vagal nerve acts as a braking system or a damper to the excitatory.

So that's where you come with balance. So you're reading up excitatory, you're breathing out, you're braking and you're coming back into balance okay.

So what we see, particularly if people have been through trauma and in having Parkinson's within itself is trauma. Scary diagnosis dealing with the consequences, worrying about the future.

There's a lot there. So being able to find a way to calm down your nervous system and find your way to homeostasis is critical. So what we'll see when we look at the HIV data.

So there's data points that we look out. So I can see how much you're in that hyper state in the sympathetic side. How much are you in the sympathetic side where the vagus nerve is operating.

And what we'll find is and how to balance sustaining up in that sympathetic side more often than that, vagal nerve is dampening or breaking. So then that vagal nerve gets weak and lazy, and then you're just constantly up there shooting these excitatory impulses where the cortisol is running through your body, and that in turn causes inflammation.

You start breaking down tissues. Right? So very dangerous. And I find, scientifically, in my own mind, a person with Parkinson's tends to be that person with grit, and they'll just grit their way through things.

they're hard workers. They'll pass off their emotions like, I'm just going to get this done. I'm going to grit through it. Just a personal thing I've noticed.

Breathing, Vagus Nerve, and Nervous System Balance

So if you keep doing that over and over and over, and you haven't allowed your body to come to the calm state with that vagal nerve, then that causes a lot of damage to the brain and it triggers a whole.

Cascade of changes. It's a cascade of changes. complicated with Parkinson's, you have baro flex receptors around the heart that stimulate the sympathetic side, and that has to do with blood pressure.

So when you stand up, you get dizzy because that are flex receptors are not controlling the blood pressure correctly. And you have this low blood pressure.

So then the data points will say, oh, you're really low in this sympathetic side and you're really low on the parasympathetic side. So we're really out of balance then.

So, one of the things that I often say to my patients to explain hrb and just correct me if I'm wrong, is if you imagine that you have a pulse of 60 and some people do, some people don't.

But it's the easiest number to work with because that basically means that if you have a regular heart rate, that you have one beat per second. But if we had an instrument and we do have instruments, so we'll get into that.

That can measure that one beat per second. In reality, if it's a very sensitive instrument, what you'll find if you have reasonable heart rate variability, is that one beat might be fractions of a second shorter than a second, you know, 0.9981 beat might be a little longer than a second.

One might be right on one second. And so it's kind of like, you know, widening and narrowing all the time. If you have more heart rate variability, if you have less heart rate variability, then every beat is exactly a second or really darn close to it.

So that that means that you're being driven more by your sympathetic nervous system than your parasympathetic nervous system. And these components of the unconscious brain are there to either protect us that fight, flight, or freeze, or to put us in healing mode, rest, digest, reproduce. Right?

And so while we certainly need the benefits of that fight or flight sympathetic nervous system, at times when we talk about in, many chronic health conditions, including Parkinson's disease, and you brought this up, chronic inflammation and chronic inflammation is essentially a defense system of the body to protect itself, which we need again, once again.

But it shouldn't be turned on all the time. It's that old expression of too much of a good thing, so to speak. And so we're gonna go and you know, 90 miles an hour, rev in the engine really hard.

And at some point I tell them it's like a genie that comes in. And if you've ever rented a U-Haul or one of those other type trucks and they have those governors built in.

So you even if you're driving down the highway and it's a 70 mile an hour area and you're pedal to the metal, that U-Haul truck is only going to go 55 because there's something that's regulating how quickly the vehicle can travel along the highway.

And that's done. Of course, by the company to try to protect their expensive equipment that you've rented. But if you're the human being and there's sort of a governor there, and you only have one speed that you can go, and if that speed is in, you know, first of all, if you're in fight or flight all the time, that's going to really eventually destroy a lot of how your body works, a lot of these biological systems.

But then the opposite is also true, because if sort of the if the figuratively speaking governor is installed, then then you may feel like you have Parkinson's because you can only go at one speed.

You're very slowed down, you're very limited in what you can do. And of course, if the goal is to improve your Parkinson's, both from the symptoms as well as from even a disease modifying perspective, we have to get you out of that limited one side fighter flight all the time.

You can't fly. That makes sense to me. Is a gazelle running from a lion? Top speed. All of the resources lead that abdominal cavity and it shunted you the arms and legs and eyes so it can save its life.

It runs at top speed now an animal. If it escapes the lion, it naturally will start shivering really hard for about ten minutes. And it's compressing all the cortisol out of the body going out.

You know, the liver's, filtering it. It goes into the kidneys, it goes into the bladder, and you will urinate out all that cortisol. And then in ten minutes that gazelle is, you know, grazing.

But human beings, we just sleep in it. that's a book by Robert Sapolsky, the Stanford, I think he's, biological anthropologist, who wrote a book called Why Zebras Don't Get Ulcers.

Much the same. So just teaching people that through the way, read their way through the anxiety or get out and walk around the block, but get up and move your body so you're moving some of these stress hormones out of your body.

so when we I just want to take a minute or two and really bring some clarity and dimension to the word stress, because if you say stress, I say stress intuitively, just as a human being, I think about emotional or circumstantial stress, right?

Someone I love is sick. I'm going through a rough relationship. I don't have enough money to pay my bills. And those are real stressors, for sure. We're sure. And you brought up, yeah.

Well, even a diagnosis, I now have a chronic disease, you know, but we can understand biological stress in a much broader perspective with all of the factors that potentially put us into that unnecessary amount of fight or flight.

I think it comes from, first of all, from foundational health. If you put your physical body at risk that you're hungry, you're not getting proper nutrition so that all of the cells are hydrated and nourished.

You know, that move your body moving all of these liquids through your body and increasing your muscle. If you don't have good relationships where you have a place that you feel connected.

I mean, we saw during Covid, Alzheimer's rates skyrocketed because loneliness is a high indicator of dementia. So all of these things bring you to functional medicine or foundational health.

And then if if your body is out of homeostasis and not at the optimum, then you bring in these additional stressors. You just don't have the resilience and the capacity to respond to them.

So it could be disrupted, fragmented, or insufficient sleep or sleep apnea. It could be, you know, nutrient deplete ation or nutrient imbalances. Yes.

It could be more emotional, psychological, you know, stressors. it could be, physical, a level of fitness where either you're just not moving your body at all.

There's an expression that's sitting is the new smoking because we know that sedentary lifestyle drives an inflammatory response. But when I was first introduced to, heart rate variability was really before I knew a lot about functional medicine.

It was when we were doing triathlons and we were listening, you know, to the Ben Greenfield podcast and, you know, he was interested in how athletes can actually over train, not under train, but over train that stresses their system beyond the point at which they are then able.

Stress, Trauma, and Foundational Health

They should be able, through a training stress, to be able to recover and then raise their level of fitness as a result, whether that's stronger, faster or whatever they're trying to achieve.

But if you overtrain, if you do too much, not only I mean, there's a reason, maybe that you're exhausted over the next few days that your body can't really recover in a resilient way, but you can actually measure heart rate variability as an athlete to say, I'm overtrained, I need to take a rest day because my homeostasis is off, my balance is off, and by taking those rest days, it allows me to restore that balance.

And then I'm ready to train again. And hopefully I've learned a lesson in that process that I'm not going to work out like that again, or I'm not going to work out like that until I'm ready for it, because I wasn't ready for it this time.

This is true. I think foundationally, we have to bring your body and our body into the most optimal condition that we have, because every millisecond the body and the brain is scanning.

Do we have everything we need? Then you have to look at, you know, we talk about the patient narrow down below. We use that word a lot around here. Well, that's their narrative or that's what they're thinking.

But that's critical for a Parkinson's patient because they have to know what is going on. But his brain is up there with this big question. What's wrong with me? What's wrong with me?

What's wrong with me? Right. Spinning, looking for the answers. So if you're a sleep, your brain requires 60% of

your body energy just to sleep. So imagine if you're ruminating on this narrative.

It's pulling all of the resources from the body trying to find an answer to something without an answer. Right. So one way that I coach people and help them is I really look into their words and what they're saying and what they're thinking and ask them different questions.

So maybe a question is what are some things that I can control to bring my body into homeostasis every day? Can I get a good night's sleep? Can I track it so I can see it?

Am I drinking enough water? Do I have really good nutrition and that my gut is operating? Do I need to look at some of the relationships that I have? Am I do I have a creative outlet, a purpose in life?

All of those things are very important, but how you give the question to the brain is very important. Absolutely. I, you know, always and it always invokes for me a scene from one of my all time favorite movies and probably one of the greatest movies ever made.

Although I know Citizen Kane is usually right up there when you ask a movie critic. But, it's the movie Marathon Man, starring Dustin Hoffman and Laurence Olivier and Olivier, plays a, Nazi in hiding.

And, it's a wonderful, interesting movie. if you like political thrillers. But, there was a scene where Olivier is a dentist and he has, Dustin Hoffman in the in the chair as a patient, and he's actually torturing Dustin Hoffman.

He's drilling into his teeth with no anesthesia, and he keeps asking Dustin Hoffman, is it safe yet? And Dustin Hoffman has no idea what he's like. What does that even mean? Is it a code?

He'll go. Is it safe yet? Is it safe? Is it safe yet? And because Dustin Hoffman can't answer the question, he didn't know what he's being asked. Then he'll drill more into his teeth until, you know, finally they reach some sort of level of communication.

But that's really, you know, the brain is going is it safe yet? Is it safe yet? And all all of the things we're talking about really relate to the unconscious brain.

And I'd like to know what your observations are, Valerie. But, you know, when we engage people in these conversations about utilizing therapeutic lifestyle factors or measures to actually bring more, restore homeostasis, bring the person back to a better place of health, and ultimately allow, in the case of Parkinson's, allow their brain to start clearing some of that alpha synuclein and even potentially harnessing the benefit of their own stem cells in the brain for neurogenesis to make new brain cells, the brain must think it's safe.

It's safe. I'm ready to go into healing mode. And though that thought, intuitively at least is not a conscious thought, it's not like how often we see someone.

That's it. Well, you are experiencing much in the way of stress. And they said, oh no, I'm just great. But you look at their heart rate variability or look at their breathing pattern, and in fact, the unconscious brain and the person who says they're just they're okay is actually in fight or flight.

So we're not necessarily talking about something that somebody is intuitively aware of. And that's where I start asking people, what are you experiencing?

Not in your brain, but what is your body telling you? And they've shut down all those signals. So this anxiety, this heavy chest, this nervousness, you've just ignored it.

But when you breathing in, what is your heart telling you? What are you feeling at your fingertips? Numb your toes numb. Do you have a heaviness you can't get a breath?

And even the Parkinson's symptoms of the shaking in there freezing, right? That's your body giving you messages.

These are bother me when patients would say I'm fighting it.

If I just know the enemy, I can fight it. Well you don't have a parasite or a bacteria in there. These symptoms are your body talking to you saying hey when's it going to be my turn.

Are you going to shut the brain off and take care of me. It's not something you're fighting. This is something that you nurture that you love. Let's much like taking care of a toddler, you're always standing.

Do they need to be changed. Do they need to train to. They need to sleep. Do they need to play. Then they need attention. Right. So you're always scanning your body.

What is my body need right now? Do you take my medication on time? People never take their medication on time. did you eat on time? And it's tricky to get the medication in the food.

You eat it all at the same time. Did you move? How am I to get that in my schedule? Did I get good sleep? I don't know, my wife snores. You know, all of these things.

And then this goes into change. The brain does not like to change. We like our habits just the way they are. Because a habit is a wiring. Inside the brain, you have neurons talking to neurons and it just takes so much energy for this to go on.

You don't want to reinvent all the time, so the brain will start making wiring dendrites pathways to make it automatic. So those habits are highly ingrained.

Wiring, on food, for one thing, not getting good sleep.

Habits, Coaching, and Motivation in Parkinson's

So now you're saying I want you to establish a new habit. And if you look at the research on stages of change, people can be in a pre contemplative stage for a long time when they have no idea that they need to make a change.

Right. We see smokers in their pot and they're like why do my feet away or my feet numb. They have no idea. But then you will be in this pre contemplation stage where yeah I know I need to make some changes.

I feel better but this is the food I like to eat for comfort. This is I eat this food because we get, you know, this socialization. Our family comes together.

I'd rather just watch TV than go exercise. I don't really want to deal with that emotional, situation with the person. I'm going to ignore it over here.

You're going to feel better. You're gonna have more energy. So as a coach, I help them sort of shift that. What are all the reasons that you could have a more fulfilling sense of well-being in your life?

And then we start go into the action stage. We will make one change. Maybe you just drink more water for a while. Maybe you go back to bed an hour earlier, right?

Maybe you do some breathing and bring the body into hostesses. And then the stages of change show that we start a new action, and then we'll backslide because it's hardwired in there.

Very difficult. So it's a consistency of one small habit at a time. And then we feel successful with this habit. And then we can add on another one. And I'm a big proponent of stacking habits together.

I can't remember to do new things, but if I stack it with something like I never in my life forgotten where the coffee pot is because my husband makes me coffee every night.

You have a lovely husband. I do so if if I want to establish something like maybe putting the kettle bells right by the coffee pot. So like, oh, before I can have that cup of coffee, I'm going to take those kettlebells and go through the house with a farmer's carry.

I've got that little weight lifting in right away. I establish that new habit. This just an example. So stacking the habits for a new change. So it's overwhelming to come into functional medicine.

With Parkinson's we're like you need to make all of these changes for your foundational health. And they're just like, I can't it's too hard. So our team starts working with you on one little change at a time.

Right. And then a lot that I work with them on is their thought process where I'm identifying what questions are you asking. And then are you living in this state of future state where I'm going to be disabled?

I'm not going to have the quality of life. I'm angry because this is not what I thought retirement was going to be like. I'm not the person I used to be.

I want to go back to the person I was. See this cognitive dissonance. So we have to kind of bring you to where you are now. And how do you want to feel a little bit better, and what are the steps that we need to take to get there and not living in that fear state of what's going to happen?

Because you live there so often, you're paying attention to what's going on in front of you right now. Being mindful and present. So one of the challenges that people have who are affected by Parkinson's is that low dopamine level and dopamine, of course, is involved in the movement circuitry that characterizes the symptoms of the disease.

But dopamine is also a motivational neurotransmitter. How do you how do you help people past, you know, that sense of feeling stuck, of, you know, intellectually, maybe I know I should do it, but.

You establish small habits. Brain neuroplasticity is that wiring of creating new habits, and you just have to have the success of one small thing. And some reinforcement, maybe a team of folks or or your partner or your partner.

I noticed I noticed what you did. I noticed how some. Accountability, that I have to do this because she's going to ask me about it. and so that motivation with the Doberman, once you get yourself into this fine foundation of your body, is a little bit more healthy.

And at least it's Doctor Barrett uses an example of the body budget that I use with most of my patients. It's like a checking account all the time. You come to see us, your checking account is overdrawn.

You have just gritted through and you're overdrawn. Your cup is empty and you've got all these fees and it's just getting worse and worse. And we're like, okay, let's look at all the areas that you're spending and let's start putting deposits in, okay?

And then every day you get up, you're looking at that checking account balance and you're like, you know, I need more water today. I need nutrition, I need to get out and move.

So I think patients come in and they want to one and then fix. But you're not going to fix homeostasis. One and done. It's a complete lifestyle change.

And bringing yourself into that foundational health that's so difficult for people to understand. Well, it's traditional medical culture that says, you know, if you got an infection, here's 14 days of an antibiotic and an infection will be gone.

And that's true in general. but we're dealing with complex chronic diseases that took years to manifest. Hopefully it won't take years to improve, but those improvements will be gradual and incremental.

And those habits that you're talking about have to be sustained in the long run. This is true. And you have to raise

that homeostasis a to get it into at least a check.

It can count. So at least I'm in homeostasis in the brain is safe. And then you start working on can we raise it up a little bit more and get back to the more that the way that we were.

So that dopamine for the dopamine to be produced, you have to bring that foundational health. And we talk about you, your mediators and triggers. And, you may be working your way to a chronic illness.

People will come in and we're like, well, you don't have it yet. You're almost there, right? It's I'm there. But we have to remind them that they're on a given trajectory, right?

They're going to get there and it usually takes an incident. It could be a in Covid. it's huge. A divorce, a car accident, some big emotional thing. And the body goes up.

That's it. Can't handle anymore dropping down. Tipping point or tipping point. Right. And so we kind of have to help them through that situation to. Is another thing about the brain that because that brain lives inside the skull, it creates reality right there.

So you're getting information in like the gunshot you're going into your past memories of that screen door. But what if you had a really bad, traumatic experience of somebody dying or an accident, or a sexual abuse, even that's like going into that memory bank, and there's a filing cabinet with a drawer open and X files on fire.

You're going to go back to that every time. And your reality is going to be that situation that you're pulling up and pulling up. So if you get a bad Google review you can't get rid of it.

so what do you do. You flood it with positive reviews. so you're never going to just get rid of that incident that happened in your memory, but you can flood it with all of these positive experiences.

So when your brain's going into the memory, you create reality. It's like, oh, I got a lot to choose from. I like this one better. So we started out our our interview today using the term heart rate variability.

We kind of defined it for folks. We've told them that it can be measured. can you talk a little more specifically if somebody say, say I want to go out, I want to have my heart rate variability measured.

I want to know what it is. I want to know or, how I, you know, we've talked about some ways that you can actually improve your heart rate variability, but where can people access that data?

What are some of the resources currently available for folks to look at their heart rate variability? The company I work with is Heart Math, because they've done 35 years of research in some really intense research, starting out with Afghanistan soldiers.

They've taken it into classrooms, into boardrooms. So they have really great data. And so they use a term of coherence. So coherence is when you have balanced both sides of the nervous system.

So it has a little ear thing. It sends the data to their phone. And then it's going to give them you're in the green so you're in coherence. Cool. You're down in the blue in the red.

So they've used this data in school systems. If you have children come in and their heart rate is in the red, they cannot take a test or learn. Maybe they're hungry or their care home was too chaotic for them to deal with it.

You have to get that child fed and calm down before they're in a place to learn. You have young soldiers. We send children out in the war, right? They're 18 years old where their frontal lobes haven't even developed.

HRV Tools, Coherence, and Biofeedback

We put it in these horrendous situations and their heart goes on, their brain goes on overdrive. Danger danger, danger danger. Right. Well, they're not always in a battle situation.

There are times when they're not in danger. So teaching in these breathing techniques and to understand how their body feels, bringing themself into that homeostasis balance over and over and over when they're able to calm down their nervous systems.

And that's how they've been working with post-traumatic stress, is giving them their skills ahead of time so that you don't have this. You know, I think they, call it the, you know, like moral injury.

Right. So, that's been really effective in working with soldiers and that with children, they even take it into boardrooms in situations. You've all walked into a meeting and you've seen, you know, they're really uncomfortable person in the room.

Right. And the whole room feels it. so being able to work with your own coherence, breathing and bringing your energy levels into coherence and you're gonna affect the people around you.

So if the heart is an electric motor, it produces energy or electricity. an electromagnetic field around your body. You take glucose into your cell, do the Krebs cycle into the mitochondria.

You've made energy. You have one neuron talking to another neuron with Dr. Binney. You've created energy. So we have an electromagnetic field around our bodies.

And being able to bring that field into coherence. And we've all met people that were not in coherence, that were angry or frustrated, and it's uncomfortable to be around them.

He actually sort of pulled back. It feels uncomfortable. And then we meet somebody that you just lean in. It's a very warm, comfortable feeling, right?

Dogs have that coherence. Or you take autistic children and you set them on a horse. That's a coherent place. So we're responding to these energies from other people.

We can see it on a spectrogram about six feet around us is what we can see. So, you know, imagine you have an upset patient or an angry customer. How would you deal with that?

Well, the first thing you do is take some breaths. You breathe in, you soften your body, you start changing the energy around your body, and then that in turn goes to their energy and the softening in the common.

Your tongue goes to those, messages in their brain. Well, they'll copy it and they'll calm down. It's really quite magic. And we do that over and over with people.

So when someone's really angry, just breathe. slow, deep breaths. I had a woman today. and it happens quite a bit. She goes, well, I'm a, you know, I believe in God in the church, and I'm not sure that this is in alignment.

So this is how I explain it. Meditation is very mental. That is the brain operating with thought. And you're just allowing thoughts to happen. You're not judging them or trying to change them or stop them.

You're just allowing the thoughts and being present with what your thoughts are. That's meditation. Prayer is a conversation with your higher power or God.

It takes place in the linguistic parts of the brain, and it takes a lot of energy to have that conversation. You're trying to work through something. You're having a conversation right?

But the HIV is strictly physiological. I'm just asking you to breathe and bring your body into homeostasis. you can pray at the same time. You can meditate at the same time.

But I just need you to breathe. And there are, in addition to the heart mass technology. And that's something called inner balance that we're using, although they have some other devices out there as well.

there are, you know, more and more ubiquitously heart rate variability tools are available to the general public, but they even realize it or not. You know, I choose to wear an Apple Watch, and this is one of the older ones, you know, but it still actually measures heart rate variability.

Right. It's going to show you one number. and that's the beauty of what I do with the biofeedback. The person is going to see colors green and coherence blue.

And when they practice, they want to be in the green. And the percentage of the data that I see in the background or all the data and numbers, and I can say this number means that you're in sympathetic.

This number is your vagal nerve. and then I'll put it in an analogy like music or gardening or something to help people understand. And then I can say, I need this score to go up.

And with the breathing we're going to we, you know, move this score. So then you know that you've gotten somewhere because you have actual data to prove it, much like your sleep.

If you have data on how long you slept in the stages of sleep, it's much more meaningful than working with a coach that hold you accountable and helps you understand the scores, and helps you through the other thought processes that go with it.

Like the question, where are you mindful and you're not living out here in fear and you got your questions answered, right? We have to calm down that inflammation process to start with.

So there are there are actually, I had one on my phone for a long time that I noticed. There's some more out there just going to say the Apple, the App Store for the iPhone.

And I don't own an Android phone, but I'm sure the same apps are available on Android and they use the flash, the light source on the camera cut the camera part of your phone, much like a pulse oximeter works over your finger.

And then they take you through an exercise of breathwork and you can get that heart rate variability on a moment to moment basis, where you can watch it go up or down.

That's not necessarily a substitute for working with an experience, you know. H. R. V code comes. Back to the patient in who by the team is useful by all the devices.

But is it meaningful to us. We'll use them. Will we use them. Do they just stay in the closet? Right. It was a worthwhile investment in the beginning.

It was well intended. But again, it comes back to that habit change. How can we make this? And that's fine. If you're relatively healthy person. But when you have something like Parkinson's disease, you're trying to save your life.

You have to implement all of this foundational health, bring yourself into homeostasis so that you can have that sense of well-being and, you know, helping people understand they have it in their mind that this is not where I'm supposed to be.

I'm still speaking up here. I want to be where I was ten years ago, and I'm not going to be happy until I have that. Well, that's not reality. So they use the grow model to what is actually our reality right now.

And what are small steps that we can take to start bringing yourself back to foundational health. And people will hold on to that idea. I'm not going to be happy until I'm where I was.

Well you can see how the brain just turns on that. Let's be realistic. Let's tell the truth. This is where you are. And

here are the steps to bring you back into foundational health.

And it's going to be slow. We have many patients that thrive on it. They embrace it. They embrace all the stuff. They'll come to the coaching. They'll see the doctors, they'll do the exercise, and they get better.

And then we have people that will just dig in their heels. No, I want a miracle. Well, those they're probably not ready for the approach that we offer.

But the folks who are ready to explore that, knowing that they may not have all the answers, all the solutions, all the steps from the get go, that's why we're here to help and nurture them and to really meet them where they are, and to put together a very individualized, personalized, program for them and then nurture them and support them on that journey.

That's so they may think that they're not making any changes, that we've collected all the data. And you say, actually, you're happy. Ability is up in your in coherence, actually, where some of the tests that you do on their movement and the functional and, you know, neuro fitness and the nutrition and we can see their labs, we can show them the data.

Yes, you are in fact coming more to their place of homeostasis towards health. So you may not be understanding how your body feels, but in fact you are improving.

Reframing Progress and Supporting Patients

And that in the narrative is all of it is critical. I have to have a proof that I'm better. And a belief system that it can happen may not be today, but it's going to happen.

It can happen. It is possible. We've been doing this long enough. I have a patient who has, at least for now, reversed her Alzheimer's disease. You know, in my clinic we have others.

But the nice thing about this individual is it's not only did her cognitive function improve, but the biomarker measures of Alzheimer's disease, the amyloid plaque and the tau protein have actually gone down to almost completely normal levels.

We have patients with Parkinson's disease who have followed our program over years and who are not on medicine and are completely asymptomatic. We had patients with multiple sclerosis who are back to the way their the way that they want to be.

And I want to just make a brief point because you're you've made reference to, you know, I want to get back to homeostasis. I want to get back to the way that I was.

But sometimes we really have to actually look forward and say, well, the way that things were is, well, how we got here now. So we actually want to help you be an even better version of yourself, not just the way that you were, but we understand what they mean.

I want to be not sick anymore. I want to be, you know, the person who didn't have Parkinson's. I have a social work standard, so I'm always looking at all the systems around.

And so like almost every time, some will say, I haven't told anybody I have Parkinson's. I can't. How do I do that? So now you're holding on to the secret in requiring more body energy.

so let's practice on, you know, in there are 62 million people in the United States with a disability, one out of four people. You are not alone with a chronic illness, and you would be hard pressed to find any healthy individual anywhere that doesn't have some sort of high cholesterol.

They're, insulin resistant. Their sugars are off. We're just not healthy. Society. So people understand chronic

disease. And just articulating a way and how people can help you or interact, they don't need to feel sorry for you, but they all have their stuff.

There's nobody that doesn't have something. Yep, yep. Absolutely. So letting go of that and interacting and pulling in your community that supports you is massive.

And in light of that, right. that's been a tremendously helpful interview. and and in case people do want some support from you specifically that they would like to coach with you, they'd like to learn more about their heart rate variability.

They would like to use that tool to ultimately build resilience and put their body in a state of balance. That homeostasis that you refer to that allows them to thrive.

Can they reach out to you and work with you? Yes. I can do a discovery call and just meet them, explain it to them. I offer just some coaching packages of six sessions or 12 sessions, and we really can get a long way in that amount of time.

So they would just make an appointment with our office at and Health in Neurology for a visit with me so I can explain it, see where they're at, look at the all the systems.

and then we can put a plan in place and, you know, generally, you know, I like to even have a session with you. So we have a working diagnosis sometimes with people, they need that diagnosis so much in the narrative.

And you go in and you're like, I've checked everything. And I just you're not nothing yet. This is your body at a homeostasis. And you're having these physical symptoms.

You're eventually going to get somewhere, but not now. And they for some reason can't seem to take that answer. No, there has to be a word for it. Well the word is you're out of homeostasis.

And let's work on this foundational health and managing your breath and heart rate variability. And your stress and stress is an interesting thing, Doctor Charlene, because there's a famous study of 3000 people where they interview them on what the word stress meant to them.

Some people viewed stress as, oh, it's horrible. It's going to break down my body. I'm going to end up sick or dead. How did the people said, you know what, if I didn't have a little bit of stress to motivate me, I wouldn't go forward.

So I see stress is very motivating. At the end of many years, who do you think was doing okay? Well, the people who were motivated by stress, I guess.

they didn't view it as breaking their body down. So just our thoughts on how the definitions of how we understand that narrative is so important. So all of this in the clinic and the team, we listen to what you say, because we have to get sort of an inside line on how your narrative is going.

So you take wonderful, you know, physical exams and their history. And I, you know, I appreciate that so much because it gives me a really good understanding of what's going on.

And then then you have to kind of start tweaking that thought process. And then they're, you know, the way they're activating their body. so it's not a short process, but it's very doable.

There is hope. Hugely rewarding. And just to emphasize, I think what you're saying, as we wrap up, that, you know, it is true that sometimes we see folks who have a variety of symptoms they don't yet necessarily meet criteria for a name disease.

and we're very careful about our diagnostic evaluations. So I know this to be true. It's not like we're missing something. And we can certainly understand those root causes that contribute to why they feel or experience life

the way they do now.

That's that's really what underlies functional medicine. But maybe a simple, example would be somebody who goes to a doctor and they're told they're pre-diabetic and they have the mindset like, okay, you've told me I'm pre-diabetic, but and I hear you, but it's still okay because I'm not diabetic yet, right?

I'm not diabetic yet. Like, no, you're already out of homeostasis when you're pre diabetic, you don't want to wait until you're diabetic. You want to address these disturbances now.

And so there are many other analogies out there that we see in the neurology clinic that are similar to this sort of pre-diabetes, where the person's having these symptoms, their body is talking to them, their brain is talking to them.

There are hormone imbalances, immune imbalances, you know, structural signals coming from specific structures, the limbic system, the, you know, the amygdala, hippocampus, etc.

they can definitely experience symptoms. And that is that is a trajectory that often can lead to a bad disease like diabetes. But there are huge opportunities, certainly to address it before it comes to that.

Now, one thing that I see in great frustration is even the diagnosis of Parkinson's. There's different kinds of Parkinson's, and you may not have this definitive test that you need.

Right? Right. Well, Valerie, I really appreciate the time you spent explaining things. I hope people do reach out to you and work with you. Valerie. Charlene, health coach and life coach, RV expert at Shoreline Health in Neurology functional medicine.

We have a website which is functional medicine dot doctor and people can sign up for a complimentary telephone call, consult so they can learn more about what we do.

We can learn more about them. And certainly if their main focus is to work with Valerie, we can also make that happen. So I really appreciate your time, the information you've shared.

I do want to mention you've touched, you've referenced Doctor Barrett a couple times. It's Doctor Lisa Barrett is a world authority in neuroscience, a great communicator.

so if folks want to check out her work, she's often interviewed on podcasts, written many books. Of course, she's also a scientist and publishes and so forth.

but there's. Also videos on YouTube that she has a wonderful way of explaining the brain. And her book is seven and a Half Lessons on the brain, which I read ten times, is just the most excellent authority on the brain.

And we're going to have to get Doctor Barrett on the Parkinson's solution Summit next year. All right. Well, thanks again and we'll we'll see you soon.