Introductions and personal healing journeys

– Well, welcome everyone back to the Medicine of Mindset Summit. We are so excited to have you back with us learning again from uh and you're gonna kind of get a two for one, you know, double whammy in this episode with me today.

We have doctors, Diane and Miles, functional medicine doctors and both, you're gonna get to learn have amazing stories for how they came to find their passion and their voice in their area of expertise.

We were talking before, we hit record that we tend to as healthcare practitioners and healers. We've come to this work for a purpose on purpose and so we're gonna get to hear a little bit about that Dr. Miles and Diane have co authored, how to use your mind to heal your mold and Lyme, which we're gonna hear more about and stress resilience.

So we are so grateful and appreciative for the two of you to be with us today and maybe let's just start Dr. Diane, Why don't you give us a little bit of an intro to you and how you came to be an expert in this area?

– [Dr. D] Yeah, thank you. So, My story begins with me being a young child and when I was young I had a lot of really crazy digestive issues. Real, real crazy chronic constipation where sometimes it was like 14 days without having a bowel movement when I got to my teenage years, I would have to travel with like multiple sizes of clothes because I never knew how bloated and uncomfortable I would be.

And basically it led to where I think a lot of people get, is that chronic or conventional medicine while it has its place didn't have any answers for me.

So I had gone through lab testing and some of the standard stuff and nobody could figure out what was going on with me and that's really what initially led me into naturopathic medical school was really just looking for, you know, kind of the root cause of all of this.

And then throughout school started developing really scary symptoms, forgetting where I lived crazy numbness and tingling in my body, sometimes pain so bad that I would have to be carried.

So it was pretty wild for a while and when I graduated it was kind of before graduation was kind of labeled as medical school syndrome and when I graduated and my friends started getting better and I started getting worse. That's when I really started doing investigation, that was out of some of the standard testing and I found Lyme disease, a lot of other insect borne infections, mold toxins, parasites, SIBO and on and on and on and on.

So my journey initially was into school because of my my particular illness and then out of school it really led to a lot of additional research as far as mind and body therapies and the mind since we're focusing on the mind component of things, the mind component. I started in Qigong and meditation in 2004 was when I started using some of those practices and really throughout my life have gone in and out a variety of mindfulness type of techniques, anything from visualization to mindfulness based exercise. A lot of different things that we'll talk about today, but some of you know really what I have found is that healing really comes down to a lot of different root causes and some of those being body, some of them being in the mind. And I think the biggest point to emphasize here before moving on real quick is like just to set the frame of this talk that when we're talking about in the mind and and the root cause of the mind that what we're not saying here is that it's self created in the mind around like it's not real right.

I think sometimes we have to be so careful about using these terms, but more around really understanding that a lot of how we are oriented to disease is through thoughts and when we have certain thoughts that can create adrenaline, it can create immune dis regulations, all sorts of different things.

So really throughout research in my own self study, really learning how much disease is a correlation between mind

and body root causes and then seeing that manifested in our clients as well. – When I was just in my early twenties, I had a similar lot of gut issues. I mean I was diagnosed with SIBO many many years later, but similarly to you, I was told that the pain was in my head and I was seeking attention and I should have a nice life and I mean, that was my little shift into, you know, health and wellness and entrepreneurship and in that side of things.

And so, yeah, these, I feel like these paths are these, these gifts of pain really are just that, you know, the gift and so Dr. Miles, tell us a little bit about your journey, your gift and what brought you to, you know, practicing in the area that you do.

– [Dr. M] Yeah, happy too. So, really, as long as I can remember, I've kind of been a bit of a lifelong nerd. I had I think my first eye surgery was at six months old and then two years old and I had glasses, big glasses from even being a toddler and then health problems started early asthma, eczema, having many allergies and things that other members of my family didn't have and trying to figure out what was going on. It took me a long time, actually, only recently did I learn that there was a tick problem in the dog's yard and we had to not have dogs for a little while. I just found this out actually a couple of years ago. And so I had these weird health things, these recurrent strep throats and a number of things.

I had a really amazing loving family, a father who was a doctor who paid a lot of attention to public health? But he had a mother who was chronically ill who was in the home who couldn't get outside and smoked cigarettes.

So there was exposure there and there was mold in the home as well. And so when I was 15, I remember I was babysitting for a friend of my sister's. I got a call from a family friend. One of those old school kind of cream colored phones reminded me of my grandma and, and I picked up this, you know, curly wire cream color phone. I pick it up and it's someone from the church of my family saying something's happened.

Your father's in the hospital, you need to get out of there, someone's gonna come take over for you. And it turns out that my father had passed on suddenly and unexpectedly from a heart attack and that really threw me for a loop.

It opened my eyes in dealing with the grief of it and the way that I processed that grief was very different than my family and the people around me. And I felt quite alienated. I felt different from others already from having a strange upbringing and history, but I really felt ostracized and alienated in the way that I was responding to grief because I felt so connected with my father, even though he had passed in this state, strange feeling of connection and Peacefulness was with me despite everyone else falling apart around me.

And I really had to try to question, am I denying something, am I not going through the grieving process or is it different? And that sent me down a spiritual path?

How microbes affect mental health

I really became aware of meditation at that time. I became aware of yoga qigong tai chi and I started to deeply work with mindfulness practices, meditation practices to work through my own situation. And and that led me to, even though I started college in computer engineering to quickly switch gears to psychology and found a school that was founded by a Buddhist monk that emphasize a lot of the aspects meditation and mindfulness and finding a place that's that's whole and that's, that's connected with a sense of love that's unconditional no matter what's happening outside. And that really helped me come to terms with my family situation, the tragedy that happened. But I was still struggling with health issues.

I was still chronically fatigued and as I decided to pursue more in the medical realm. I, I remember getting called into Valerie's office, she was the president at the time.

She said, Miles, you're going to be a great practitioner, you're going to do a lot of good, your grades are great, but your lateness for this initial morning classes, threatening your whole career threatening your whole schooling?

What's going on? And I said, I don't know, I'm struggling. I'm trying to get there on time. I'm getting to bed early. I'm getting eight hours, nine hours, 10 hours. I still feel tired sometimes.

More tired it's a struggle. I don't know, I don't know what's going on. She said something medical. I said yeah but I went to the doctor, they said everything's okay, maybe you're depressed, you know, and said let's go see a psychiatrist. So I didn't feel depressed but she said you need to look at this. And that got my, that got me in gear because I was questioning like is there something wrong with me?

Can I can I do this? And I cut out for this? Like should I just resign to doing something lesser than my passion? I really got into that. And I finally that that that event Valerie, she just inspired me. I said I'm going to figure this out, I don't care how long it takes. And I was going to everyone, energy healers, naturopaths, integrative and dysfunctional practitioners, acupuncture massage. Everything I could think of energy healing and took a long time.

But eventually I did figure out I had sleep apnea. I had a an issue with uh thyroid issue that was just subclinical. So it just was missed in the conventional system.

I had antibodies against cells in my stomach called parietal cells that were causing B 12 deficiencies and and even oral B 12 wasn't replacing those. I needed injectable and I found that I had co infections but busy and Bartonella multi susceptible genes related to mold lots of stuff over the I mean it just took a long time to figure all that out and I didn't have practitioners to help so I had some mentors but I was a lot of it was just digging into research trying to read trying to listen to stuff and and luckily I was able to piece it together in a way that I feel like my energy is recovered at this point and and I feel really good and I don't want other people to go through what I went through to get there. So so that's that's how I got inspired to to co found together with Dr. Diane the medicine with our clinic and the medicine with heart institute that trains other practitioners as well.

– Amazing. Amazing. Alright I'm gonna switch us here now that we are in like panel mode and our topic today is microbes and mental health. And so I actually want to start at the basics with can one of you define very simply what microbes are? – [Dr. D] Sure yeah microbes are small organisms. So we can be I mean that's the simplest thing.

So we can say microbes or bacteria, fungus, virus parasites? R. K. A. So basically they're small organisms. – Okay and so how can you know mindfulness and mental health practices I guess what is what is the connection you know we we we might feel like we've been conditioned to not feel well go for help get the prescription the supplement, the tests whatever that you know that whole piece.

But besides that what do you feel the connection is between microbes and mindset? – [Dr. M] Well there's a number of connections. There's a causative connection where an infection we know for example strep infection in kids can lead to an auto immune response in the brain where the immune system attacks dopamine receptors tubular unless a gangly aside and all of a sudden we C. O. C. D., Anxiety, depression, poor behavior A. D. D., A. D. H. D. We see food sensitivities start to arise.

We see eating disorders arise. So there's that link of infections or microbes leading to auto immunity in the brain, leading to mental health concerns.

And there's the opposite as well where we know that stress, we know that aspects of mental health can absolutely impact the immune function that can lead a person to either dysbiosis in the gut or infections being more likely to set in and have effects on the body. So there's a bidirectional relationship between microbes and causing mental health concerns or mental health and stress and mindset imbalances leading to greater susceptibility to infections and they might even feed each other in a vicious cycle.

– [Dr. D] Another example of this is a small intestinal bacterial overgrowth where we have this overgrowth of some of the normal flora of the colon getting displaced and over growing in the small intestine that's most of the time when we have small intestinal bacterial overgrowth SIBO for short they're caused by the overgrowth is a result of microbes that are in a class of bacteria called gram negative bacteria. And there's other things like U.

T. I's like people that have chronic U. T. I. S. Oftentimes those are also in a gram negative bacteria class. So any of these gram negative bacteria that are overgrown that are infected in our body, they release something called the lipo policy Sacha ride especially when they die and they are killed. Lipopolysaccharides can actually go to our brain

and cause blood brain barrier disease. Which is basically like leaky brain.

Like a lot of people have heard of leaky gut the brain. We have the similar kind of mechanism in the brain where the idea is we want only certain things to cross into the brain and other things to stay out.

So when we have certain types of bacteria that can actually lead to this blood brain barrier disease A. K. A leaky brain and one of the problems with that is then we start getting things into the brain such as toxins or infections and that can cause a wide variety of neuro inflammation in the brain also leading to mental health issues leading to other chronic things such as neurological diseases which of course have their own mental health component as well. So that's another example of what can happen.

– Okay, so let me ask you this and I just just to clarify. So I've had strep, I mean when you talk about strep infection, like do you actually mean like potentially like strep throat or is that is that an example?

– [Dr. M] The same bacteria? Yes. – So I've had strap my three boys have had strap everyone. I mean my husband's had strep. Are you saying that that infection could you know you had the list of what it could start to impact but it could start to impact years later.

Does it have to impact at the time of the active infection? Give me a sense of how does time play out in this where like as a mom who had, you know, a middle or middle son was chronically ill with gut, you know, gut brain things. You know and you in the in the moment you're trying to rack you know like you're trying to think of what happened, you're trying to create that connect that dot between this and that.

What is the time frame involved here? Like can it be years later that it shows itself in these other symptoms? You guys are both nodding and smiling? – [Dr. M] Yeah. Yeah. So first let's broaden it strep is one of many that have been shown to cause brain auto immunity and attack against dopamine receptors in these other aspects of the brain, lime is another Epstein Barr virus, which is when people get mono. Epstein Barr virus is the virus that causes mono has been shown to trigger this in some cases.

Bartonella Which is a lyme co infection has been shown to trigger this. Certain strains of regular old influenza or flu have been shown to trigger this. And even also mold toxins or mycotoxins have been shown to trigger the same brain, auto immunity.

So there's a broad swath of things that can trigger it for auto immunity in general, usually there does there's a backbone of a genetic predisposition in order to be able to be expressed. So not everyone is going to have this particular issue expressed because there is a genetic predisposition and then the trigger for that genetic predisposition is that some of the protein structure on these bacteria viruses and microbial issues and toxin. Some of the protein structure looks a lot like pieces of protein structure on those dopamine receptors in the brain and in turbulent in the brain. And so that it's called a cross reactivity or a molecular mimicry where the immune system is trying to get rid of the infection.

When to test for infections and toxins

But as a byproduct of trying to get rid of the infection it attacks self or tissue with especially there's that genetic predisposition and in so doing the more the trigger is there and that could be chronically or acutely the more that trigger is there or flaring or in a moment we know Epstein Barr lies dormant after people get it, but maybe the immune system dips, there's extra stress, their sleep deprivation and then it flares now that trigger is there more so and now you can get that onset of attack against those receptors long after having initially gotten the infection.

Because another trigger allowed that to flare. So it consider these infectious microbes and and and toxins like a trigger that the trigger depending on the gut and sleep and stress and many other things will be more or less activating that gene and causing that cross reactivity.

– [Dr. D] All right. And then to further answer your question like yeah, I mean sometimes this stuff when we're talking about the long terms of L. A. Of strap or line or some some of these other infections sometimes like these

types of processes that Dr. Miles is talking about can happen can occur right away right sometimes for some people, this genetic molecular mimicry thing kicks off right away and sometimes it takes a series uh and and many times, in fact I would even presume to say most times it takes a series of many of these things to say add up over time. So it's a combination of you know, of the strap of the sea, below the line, all these different things and all of a sudden it's like you have strap chronic strap as a kid right in your example and it's a decade later and now we are having some of these other types of symptoms manifest.

So, and at that point, usually then it's a combination, you know, from the chronic standpoint where it's like, oh, maybe there's a disconnect clinically as far as diagnosing. Like where did this come from?

Well, often sometimes it's we've been slowly collecting all of these different things for a decade plus. And now it's the, sometimes this is the straw that broke the camel's back type of thing. Right, Where is that last little thing?

And then all of a sudden all these symptoms come up and we're looking for that one root cause. But we can trace many root causes all the way back to certain situations from childhood. – My gosh, okay, this is fascinating because I did.

I was joking with one of my guests yesterday on the summit that this this seven day some it feels like a personal health and wellness and counseling session for me because I did. I mean in grade summer of grade nine, going to grade 10, I did have mono whichever. All my friends teased me the kissing disease.

Right. And so, and now with SIBO I'm like, okay, wait a minute. These, you know, there definitely are these connections. And so can you one of you take the charge on this one. How would someone know when they should test and what kinds can you give us an example of what these tests are.

Like, what are they? Are they blood tests or they salivary, what happens when someone goes to test for some of these microbes. – [Dr. D] One of the things that I think is important for people to understand is that when we're talking about a lot of these different microbes, a lot of them we could put into a class that we could call the Great meme makers, meaning they like the symptoms can be chronic fatigue syndrome, fibromyalgia, headaches, migraines, stomach issues, depression, anxiety, you know, personality disorders, autism like so many different things.

Right? So one of the keynote things to think about is if you've had symptoms and you have a variety of symptoms and you've gone to your conventional doc and you've run all the standard tests and things are like relatively normal, that's like big keynote because these are the great mimic ear's and these are gonna look like some of these standard types of basic things like you know chronic fatigue syndrome can be a simple ass thyroid disorder, right? But if you've done thyroid work, you've done adrenal work, you've taken care of some of the lifestyle stuff.

That's one of the keynote things of where we want to look outside the box. And another thing I would say is when we have a lot of these types of microbes, we have a multi systemic type of impact. So if you are you know if you have like one symptom, like your only symptom is once a week you get headaches or your only symptom is in talks like exercise intolerance or um chronic constipation and just have one symptom if that's the case, it's not you might have, you know, you might have seen both.

It's chronic constipation or something like that, but you're probably not going to have a myriad of a lot of these other bugs because most of the time, these things, we're talking about these types of microbes that you know that Dr. Miles mentioned, you know lyme which is borellia, bartonella, babesia, EBV. These types of things straps chronically for long periods of time, they're gonna cause multi systemic problems.

So it's when you're also seeing like, wow, I do have a headache and I have a consultation, I am fatigued, all these things that are affecting multiple body symptoms.

That's another time that you're going to want to think more about doing some of the investigative work to figure out if you have some of these infections.

– [Dr. M] Okay. Yeah. And I wouldn't to Dr. Diane's point if someone's on standard American diet and abusing alcohol and you know it do that stuff first.

Like don't go testing for Lyme when you're still eating a standard American diet and under incredible amounts of stress and sleep deprived and relying on alcohol to escape.

Like that's not the time to test for Lyme and the results are going to be limited in terms of what results you're going to get if you don't do the base foundational stuff.

First of all the basics first and there's Alice static load which is the concept of you can sustain a decent amount of infectious load and stress and you know just like what Dr. Diane was talking about earlier there's usually it's not the first thing that causes something it's we have this the the concept the static load is there's a threshold for tolerance.

There's a threshold that we can all sustain of things like microbial infections and over growths and and poor diet and inflammatory things in the environment and toxin exposures.

In fact I'm amazed at the resilience of the body and how much it can tolerate. But when people do start to get multi system issues as Dr.

Mindset strategies for healing and resilience

Diane's mentioned like if there's something neurologic and something gut and something skin and it when it starts to be multiple different seemingly disconnected systems although they are all connected but seemingly disconnected or different systems then that's a time and you've already done some dietary work, you're getting good sleep, you're getting some movement and exercise and you know the basics, foundations are covered. You've done a little gut work is kind of the next step is to do the gut work first. Usually then looking at infections toxins at that point. – All right.

So the two of you I feel have done a beautiful job of like setting the framework and now let's shift our focus to what what can we do outside of, I'm not gonna let me just reframe that in my, I have a Pilates studio in an integrated health therapies clinic and um one of the common things we hear when people walk through the door is you're my last hope, I don't know, you know, I don't know what will happen if I can't, if you are unable to help me or you know, give me a new way of thinking about this. So for those people who feel like they've tried everything and I'm sure you've heard this right on rinse and repeat in your practice over and over again. What beyond the testing and beyond the supplements. Let's shift to, you know, to the mindset piece, the mental health piece, can we start talking about some specific strategies that you know, if someone is listening to us in the audience today, they could actually finish watching so don't hit and right away on this, wait till the end of this of the interview, but they could finish the interview and then actually take inspired action.

Let's chat about that. Those strategies. – [Dr. D] Sure. Yeah. And into ground us in that, I think starting with why some of these strategies work. Mechanistic lee and why they're so important is a really great place to start. So one of the things we see with a lot of these types of infections is it's simple and obvious right?

Like we got to get our immune system working well and it's our immune system that's largely going to be in charge of taking care and fighting these infections for us.

And so in order to do so we have to think about, well some of the things that make the immune system not work well and we've already talked about some of the lifestyle things but from the mindset and the mindfulness side of things stress, adrenaline, cortisol, all these these types of hormones, especially cortisol, has the ability to down regulate our immune system.

And so a lot of where we're at with our current society and our culture is really about, you know, pushing, pushing, pushing, pushing, which has its place right?

Sometimes there's times where it's time to push hard in life and and for various reasons, but one of the things that

we want to be very careful about is living in this high cortisol, high stress push type away where our immune system is not functioning very well because that's going to really impact our body's ability to heal.

So some of the techniques that will go through that Dr. Miles and I will go through some of what we're really looking at. Mechanistic lee in part is how do we actually get our immune system to work better in order to help with that and and one of my favorite techniques and there's a lot of techniques out there and as we start going through the techniques. The other thing I think I want to emphasize for everybody listening is what's most important about any of these techniques we're talking about is the regularity through it. Do practice.

Like one of my favorite sayings actually I heard first by Dr. Joe Dispenza who I just love, and it's the saying of nerves that fire together, wire together.

So if we've in doing this, you know, running our lives this super stressful type of way, and we're trying to start running it and a more relaxed type of way to encourage our immune system. We have to do that regularly and practice it so that we re pattern our neurology to run in this different way.

And so I'm pre framing this part, because I think it's really important for people to hear this before we start talking about techniques that in the end, try what, you know, try the techniques you're gonna hear about in this episode, try tech. Other techniques you'll hear throughout the summit, and what I really encourage you to do is find what you love, you know, find something that it's like, oh, I do this breath work or this visualization or this meditation, whatever it is, find what resonates with you, because that's what you're going to stick with. And I think that in the grand scheme of things is one of the most important components is finding what you love and being regular at it.

Now. My particular, one of my particular favorite breathwork type of exercise is one of the techniques we can talk about is box breathing. Box breathing. I really like, it's been used by the navy seals.

It's been shown in research to help really with focus. So it can help with brain fog as well as lowering hormones like cortisol. And it's super easy. You know, I like it because it can be done in the car, on the go in the shower, in the bath while you're cooking.

Like super, super easy, easy to integrate. And you really just make a box. It's also called square breathing. So it's a square box, you just make a square with your breath. So you inhale, say for a count of four, hold for a count of four.

Exhale for a count of four. Hold for a count of four. And then you can do it counts of five counts of six counts of seven. And typically you just typically do it until you get to that point where you're like, I can't hold for any longer and you either stop or then work and count back down through the box. – Okay?

And you know, one of my Joe Pilates is one of my just one of the people that it just inspires me. And you made me think about one of my favorite quotes from him. He said breath is the first and the last act of life and somewhere in the middle it gets lost. And so Dr. Miles besides box breathing, you know, let's stay with this concept of breath work because I think it gets like breath doesn't just happen automatically.

Why do I have to actually focus on it and be conscious and be mindful? But are there other breathing strategies that you can share with our audience? – [Dr. M] Absolutely. I've studied so many different breathing techniques, multiple certifications because breath is so incredible and a lot of people do say oh well I know about breath. I take deep breaths, you know and and that's kind of the extent of it and and interestingly from the boutique, oh and box breathing, perspective. Deep breaths might actually increase anxiety a little bit depending on how they're taken and how slow or fast they are limiting breathing actually going reduced breathing can sometimes calm the nervous system.

But then there's a case for doing some kind of opposite, more intense breathing techniques. And Dr. Diane earlier was talking about microbes having especially the gram negative in the cell wall lipopolysaccharides, LPS that can get into the bloodstream. And we know from studies where we inject people with LPS into the bloodstream, they get terribly ill.

They feel horrible for a few hours while the body is trying to get rid of that LPS headaches and flu like symptoms and nausea and lots of issues that happen as a result of LPS.

And lots of things that look like more extreme versions of what people experience with chronic illness a lot. And there was a study that that showed that someone he got injected with dead e coli bacteria which are gram negative which have LPS. And whereas everyone else has this terrible horrible symptom picture. He was doing a breathing technique and nothing no symptom picture. And and they measured his inflammatory markers and they were about half of what the controls were who weren't doing the breathing.

That it cut inflammation in half which is incredible. The anti inflammatory marker I. L. 10 was like double the other people and the cortisol didn't increase any more than it actually was a little lower.

Adrenaline did increase more but it was transient and increased and went down and adrenaline may have had some of the anti inflammatory effects in that transient healthful kind of a curve. And they thought oh you're just an extraordinary. So he said I'll train other people to do it.

And he trained about a dozen people and 10 completed it in another peer reviewed clinical trials showed that other people doing the breathwork could also reduce their inflammation, reduce their symptoms. So something about breathwork can mechanistically actually deal with things like microbial byproducts like lipopolysaccharides LPS that are part of that causative agent that can lead to damage.

And the blood brain barrier like Dr. Dan was talking about. We can clear it quicker and reduce the symptom through breath work. That particular breath work is a little more intensive and not something that I'd recommend that someone jumped right into without a little bit of training or foundation. And it's it's very simple once you learn it and for those who are able to do it it's fantastic.

And so Wim Hof breathing is Wim Hof method is breathwork called exposure and mindset. The Wim Hof breathing part is that breath work that has been researched specifically for lipopolysaccharides, inflammatory reduction and it's a little more intense.

It's usually never done driving in a car. Never done in water. Never done where it would be dangerous to pass out because there's a little more intense you do it sitting down or laying down and it's these full deep inhales with natural exhales, full deep inhales natural exhales. So you're getting a little dizzy, a little lightheaded, maybe a little tingly and 30 or 40 of those followed by an exhale and hold and retain on the hold for as long as possible a minute, minute and a half two minutes. Some people even 2.5 3 minutes.

And that whole brings back up the C02 levels. Re-regulates everything after you just did an intense process for your body dropping C02 increasing oxygen, alkalizing the blood. Lots of stuff happening physiologically there and it induces an altered state. So many people will experience emotional release. I was recently at at burning man teaching this to large groups of people and we had over 45 show up every day and we had to turn people away because it was in this dome and and people were really ready there to experience something intense and we had people crying, people laughing, people shaking, people having immense and tremendous emotional releases, people feeling transformed after even one session which is very powerful work and some kind of scary, interesting weird sensations can occur during its as good to have facilitation and training for it. But Wim Hoff breathing can be very, very powerful. – My husband and I due breathing and we are like we are high school sweethearts. There was like a three year old story time program in our north and in our newspaper were sitting beside each other.

So we have grown up together and we can get a little competitive sometimes. And I was getting so pised off in the Wim Hof breathing because he was holding for longer than I and I was like okay, wait, I think this is not doing what we're supposed to be doing here. So I've gotten past that and you know, he he does his holes and I do mine and and then the box breathing too as a Pilates instructor.

You know, I really helped my clients connect to that, so thank you for sharing that, It is you know, breath is not just breath, there is you know, there is technique and there's strategy and I think you can overthink it yet there is the simplicity of you know 30 seconds during your day to you know just re center so that you can move on and so I

want to touch on another part of the body, the Vagus nerve. And let's chat a little bit about vagal tone and brain retraining and how this impacts the limbic system.

And I know there's lots of like maybe people are like what are those words even mean? Can one of you you know like we did with with the breath work? Can we kind of frame what is this vagus nerve, what does it do and why is it important from a mindset and microbes perspective? – [Dr. D] Sure. Yeah. So the vagal nerve is the nerve that is classically known to really help with what's called the parasympathetic tone.

The vagal nerve actually can actually be broken down into two parts, a dorsal part and eventual part.

Breathwork, vagal tone, and brain retraining

And oftentimes we are talking about when we're talking about the vagal tone, we're talking about wanting people to be in this parasympathetic state and that basically means like classically if it's thought to be the rest and digest type of state versus the sympathetic which is thought to be the um like the fight or flight type of state.

But the vagal can actually be broken down into these two different branches and there's even another theory out there by Stephen Porges and who put this theory out called the poly vagal theory and the poly vagal theory really looks to say, okay, well these two, there's these two branches of the vagal nerve and the one branch is really oriented to the rest and digest and healing.

It's not just rest and digest, but it's also about sending out the signals for healing and repair of the tissues. And then the other part of the other branch of the vagal nerve is really more about that free.

So it's about that other stress component that is also not necessarily a positive one. It's a survival one, right? So I don't wanna say it's unhealthy because it is actually healthy in the right place because it's our body trying to survive.

But largely what we're trying to do with encouraging vagal tone is encouraging the branch of the vagus nerve that is really oriented to the rest. I just in the repair.

And I like throwing in the repair because that's really what we're talking about with vagal tone in part is how can we get the body in the state where we are actually sending out signals that are about proper repair of tissues. And so when we are talking about exercises to encourage vagal tone.

Like one of the ones even, you know, to talk about breathwork is diaphragmatic breathing is one thing where we're really moving the diaphragm because the vagal nerve is it innovates, it connects with our diaphragm and a lot of these types of breath work that we're talking about involved of course the diaphragm moving so they can hit that vagal tone that way.

But when we're really looking at the core of why we want to do vagal tone exercises, a lot of it is really oriented to get the body into that state of repair and healing.

– [Dr. M] Yeah. And and to tie it also into that limbic that you brought up as well. The limbic system in particular, the amygdala is this fear response that can be activated through challenge and trauma and triggering. So when people have had negative experiences many times, those can be imprinted into the memory and imprinted into the memory means there can be triggers that can bring a person right back into that response again, that that fear response that for example, the PTSD in war is one example where a loud noise, even though they're not in war, even though there's no risk really significantly of a gun firing, just a just a car driving by, that that misfires and a loud noise can trigger the same feelings that a person had when their friend was getting shot next to them.

Just this incredibly negative feelings and incredible anxiety can just immediately arise and trigger through this limbic activation and this limbic activation is something that there's not just these severe traumatic aspects of but there are much more minor and I see almost everyone who comes into our clinic who has dealt with chronic illness and especially who's been mistreated in the medical world and dismissed and the medical world has said

everything is ok and just deal with it and maybe you're stressed, maybe it's all in your head, stuff like that, it's just I mean that is a there is medical PTSD, there is trauma and even if it's not full on PTSD, there are subtle trauma. I consider a spectrum, not just a diagnosis but a spectrum. They're minor events that can activate the limbic system and these can start to add up and what's called generalized like that gunshot generalizes into loud noises sometimes generalizes into loud voices, sometimes generalizes into everything, is just setting it off, setting it off, setting it off. And more minor versions of this can occur when someone feels a little down and they're feeling less energy and they're trying to take better care of themselves and they see their friend, they just drink all night and didn't get much sleep, they seem to have more energy and that gets the person down and now they're feeling down and they're feeling like I'm trying but it's not working and then that starts to trigger the limbic system and then that spirals and feeds into and why is why me and you know, it becomes this whole, it can become a world view it if it can become an attitude towards life unfortunately, and even sometimes subconsciously without people really that they can have a positive outlook consciously, But then the underlying back burning thought processes are generally comparing themselves to others who are in a better way, who aren't working as hard.

And that creates a negative tension in the body. And it can be felt sometimes as anxiety or depression, or it can be felt as a sense of low drive or motivation.

There's a lot of ways it can look tightness in the chest and the throat, so somatic therapies and and certain cognitive brain retraining therapies can be so important for this, and one of the simple ones is because the mind always makes these comparisons, We don't have time to go through the whole principles and the research and the mechanisms behind how this works. I'll just say the mind's always comparing when you think about something, even if you're not trying to compare your mind subconsciously is comparing it to your present life usually. And so if you see someone who looks like they're doing great, even if you feel grateful for them normally there's a little bit of a comparison to where you're at and a little bit of attention that often gets subconsciously created and this comparative factor of the mind can really make a big difference.

It's why studies on social media showed unhappiness and studies on gratitude practices show happiness because gratitude consciously makes a comparison against a lack of something I feel so grateful that I have shelter and a home.

Some people in this world don't have a home and a homeless, that really creates a positive tension. I'm grateful for what I have versus the comparison is to a lack of having it. And that positive tension can actually calm the limbic system and calm some of that activation. So basic practice for people that I recommend to do on the fly is even though I fill in the blank even though I feel tired right now, even though I'm struggling with this thing, even though I have this anxiety even though I'm feeling tightness in my chest, even though fill in the blank, I'm so grateful that fill in the blank even though I'm really struggling with my energy right now, I'm so grateful that I'm not bedridden in the hospital, unable to get out of bed. I am grateful for I can get up, I can do basic things. I am grateful for that.

It's a reorientation and a redirection of the mind with a new comparison to put yourself more in the middle of Yeah, not here. But I'm also not here and it creates a neutral center for the limbic system to calm to be able to work from the fact that yeah, I have a goal where I want to be. And I also see that it could be worse and I'm in a neutral position, looking forward towards my goal rather than being at the bottom of the spectrum feeling bad about it. So even though I blank, I am so grateful that blank is a basic practice people can do.

– I think that what the two of you are saying here is that these these strategies are moments and they can even be stacked, you could be doing your box breathing while you're doing some of this gratitude work and the classic I am and I am so busy or I'm crazy busy or I'm ridiculous.

We're not just busy anymore. We have two or three adjectives in front of the word busy. And so I'm appreciative that you have shown that it does take one of the things I tell my clients is that moments turn into momentum and so if you can find basic moments during your day.

And so let's move. I've got two last questions that I would love to dive into before we wrap for today and I would like to hear from both of you on this in your area of expertise. Is there anything in particular that you wish was talked about more that was out there in the public more that people knew.

– [Dr. D] I feel like one of the most important things is really when it comes to chronic disease and kind of hinted at this at the beginning was when it really comes to chronic disease, it's causes like so many times people come to our clinic and they're like, they want to figure out the thing, you know, everybody's like, and even like sometimes six months into treatment, sometimes I will have clients still ask me what is the reason?

And it's a constant redirect to allow people to understand that. It's reasons. You know, it's like kind of like this um conversation that we've threaded throughout this whole thing.

So I think that's one of the core things like causes multiple reasons, mind and body relationship. And then with that also is the concept of both and instead of either or so in some of what miles was saying, even around the gratitude exercises of like I am tired and I feel this some of that is really oriented into this both and concept of like we can feel tired, exhausted. Like it's, it's very, we should allow ourselves to feel validated in our emotional response to any given thing.

But how the idea with some of this is how can we feel pissed off that we've been sick for a decade and while still, you know, while feeling that while not suppressing that while allowing that and honoring that and acknowledging it also looking to, well, you know, it actually could be worse. I'm still grateful for what I can do.

I'm still putting effort into the future and I think so many times we're in this almost black and white type of scenario where we think that, okay, well I can't, if I say I'm tired and I'm not being positive or if I'm saying I'm down then I'm not, you know, not being looking like gratitude. And so the concept of both and really allows our body and our emotional system to catch up to the fact that we're complicated beings and we can feel many different things at the same time and it's not in contradiction to say I'm tired, but I'm also grateful.

– See, and Dr. Miles before you jump in. I want to just um follow up on one thing that Dr. Diane mentioned, do you feel like in your practice like everything that you have just said, I feel is like where people are at with their mindset, like if they truly believe that there is the one thing then six and 12 months into tree, they might be frustrated still, even though they're taking all these positive steps forward to finding the root causes or reasons, how do you, do you find that you are, you know, coaching and mentoring through that that mindset shift that is really necessary to, you know, as almost like parallel along with, you know, the supplementation and the testing and all those things.

Can you just talk about that? – [Dr. D] Yeah. You know, it's so interesting, our brain is oriented to survive, right? So it's really, really oriented oftentimes to internally when we're not well looking for not what's not well, so for example, I, one of my classic examples of this is I had a client come in. Her number one symptom was face tingling.

She had a lot of other symptoms. So I was like top. So it was actually the first symptom we got to go away. So I saw her about three weeks after her first visit and it was already gone and she was like, you know, she first comes in and she's like, Dr. Diane, nothing's working, which three weeks into treatment oftentimes a lot doesn't work because it is chronic, but I was like, okay, well let's talk about things.

And I was like, well, how's that face tingling? And she's like, oh my God, I completely forgot I even had that, Right? So it's a classic example of like, the brain is oriented to look for what's wrong. That oftentimes we don't even realize that we're healing because our brain isn't tracking the fact that our knee pain is gone.

We just wake up and our knee pain is gone and we start doing things, but it is tracking the fact that we still have headaches, that we still have digestive problems, yada yada. So, a lot of the coaching really does come into helping people understand be able to see the way they're getting better and what's changing and then actually using that as impetus to remind the brain and and to work with the mindset to say, oh, see what's changing, see what habits, like you're actually improving on, see the various air areas that are working and less orient to not just what's not working. Obviously we have to talk about that, but also let's spend a lot of time in our work and in our days to also focus our brain to recognize all the things that are working well. – It's fascinating, it's fascinating. Dr. Miles.

What about you? What do you feel is not being talked about enough in your area of specialty? – [Dr. M] I find that there's a common misconception about also it ties into that trying to find a smoking gun, just that there's a

reductionist IQ trying to reduce it down to.

Its it is a physiological cause like a, like an infection or it is a mental emotional cause like a brain chemistry imbalance or a a neurotransmitter issue or something like that or a thought process issue or a stress issue and I really don't see it as separate. I see a single mind body process that co arises that together with infection co arises.

This mental emotional process that may look like anxiety or depression. But as this shifts, the immune function shifts and the infection shifts, as this side shifts, as the infection has reduced this side shifts, they're intimately connected. There's a single mind body process and that I truly believe that there's a lot of problems with victimization with diagnostic labels becoming too much of a locus for control for the way people are feeling, but also a big danger in the manifestation attitude of my thoughts become my reality and it's all my fault that everything is happening the way it is.

And again, these polarized responses, I feel truly that there is this place of that whatever is happening to you physiologically, mentally, emotionally, it's not your fault, it's happening to you and you don't have the responsibility or the blame around that.

Personal mindfulness habits and closing remarks

What you do have the power to do and the responsibility for is how do you relate to it and to like go to that level of how am I relating to this very challenging physical situation, emotional situation? What's arising?

How am I relating to that? And I truly believe that there's a place from which we can relate to life, experience, challenge stress and struggle which is already hole no matter what the externals are, it's already whole and it's already loving, it's already carrying, it's already content and at peace even in the midst of a storm of craziness in life that there is a place from which we can access and relate to all of the experience mental emotional physiologic that is actually centered and loving and caring no matter what.

And that's I really would like people to feel into that and to sometimes that drops away some of the noise of like I can be openly curious about a microbe and its impact on my health.

I can be openly curious about the thoughts that I'm having and its impact on my health but I'm not putting my locus of control on those things. I am staying with.

How am I relating to what's surprising and that's really important. – I think that's really important. And while you have the virtual mike I'm gonna ask will you share with the audience and with me um I'd love to know what are some of your personal mindset or mindfulness habits that you use in your daily life? – [Dr. D] Miles was that was that you?

I thought she was still asking you go ahead. – [Dr. M] Yeah, so a lot, I mean to me I like tiny habits, atomic habits. These books are great because like I like to stack a lot of stuff together. I do breath work, I do cold exposure, I do heat like sauna and hot tub, I do brain retraining practices. I do meditation practices, I do movement and somatic based practices. I really layer it on.

So I feel like core aspects are I meditate every single day, like that's no matter what, when I go to sleep before I go to sleep, I meditate. Doesn't matter if I'm gonna be sleep deprived, I'm committed to that. I'm going to meditate every single day.

That's like a for sure and I do a lot of breath work. I do a lot of movement practice and in brain retraining is the, on the fly throughout the day as I notice things happening.

It's my kind of mindfulness throughout the day where I am looking at even though I am so grateful that and looking at cultivating an attitude of gratitude.

So if I had to boil it to what are the big ones? It is that that I'm doing a combination in breath work of the Wim Hof

breathing and some boutique, oh and or box breathing and doing both. And the boutique oh and or box breathing is more my day to day. What do I want to breathe like mostly.

And the Wim Hof is like my intense, almost like a weightlifting practice of breathing like the intense like alter my state and go another place and and and like really exercise that that breathing muscle and then I do the meditation practice which is non moving and then I do a moving meditation practice which are gone like movements with a meditative state focus that I'm looking to get into that state of unconditional love and then I really do focus on the, throughout the day, brain retraining of an attitude of gratitude.

So if I had to boil it down, this would be the big ones, but also cold exposure and temperature and and I do a lot of stuff, retreats are really important to me. So there's a lot. – And Dr. Diane your personal mindset and mindfulness habits. – [Dr. D] Thanks. Yeah, so Like I said I've been doing this stuff as far as mindset and mindfulness stuff since 2004.

So it's changed, it changes over the years. And so I'll answer as to what I've been doing over the past couple of years um which is one of the things that actually been going on for a long time really is even an orienting from a mindfulness type of standpoint, how I exercise. So like when I'm at the gym, when I lift weights, when I run, which is almost every day, sometimes I'm in my head and thinking and that sort of thing and processing stuff.

But what I try to do more from the mindfulness side is really when I'm running, for example, paying attention to how is my breath flowing in and out. What does it feel like when my feet are striking the ground?

What does it feel to have the airflow across the face? So you know, that's a way that I incorporate from an exercise component mindfulness into just my daily exercise routine.

And then my other thing that I'm really active in right now that I've been active in for the past two or three years are these dance classes that are their central dance classes.

They actually originated out of a lineage called S factor that was birthed by this woman, Sheila Kelly. And um Sheila Kelly has done work at some of Tony Robbins retreats, helping with female empowerment and that sort of thing.

So these dance classes come from kind of a trickle down from that lineage, they're actually slightly different. But the concept of these dance classes really is tuning in. They're done a lot of the dance and movement at the beginning is with eyes closed on the floor and yoga mats with guided exercise. And the concept is really to feel in part into oneself into areas where maybe you're holding tension, anger, stress, joy, love. Like any emotion like on the darker or lighter side and then through movement and through witnessing of other people in the class.

Once we do open our eyes allowing to actually have those types of emotions that type of trapped energy express through, through dance. So that's been a huge part of my mindfulness um activity is actually through these sensual type of dance classes. – Amazing. Well, you two are gifts in this world and how you show up and educate and inspire. And so if there are people listening that want to learn more about you, where can they, how can they connect or where would you send them into the world wide Web to do that?

– [Dr. D] Yeah, you can find our practice at medicinewithheart.com. You can find Dr. Miles at DrMilesNichols.com Me at DrDianeMueller.com. Our, online schools, Mindbodyfunctionalmedicine.t com. But if you go to either his private side or my private side, you'll see links to our school as well to our clinic.

– Amazing. Thank you so much from the bottom of my heart. I have learned so much over these past 60 minutes and I know that the people in our audience watching have done the same. So thank you both very, very much. – [Dr. M] Thank you.

Really appreciate you sending this message and these teachings out to the world. It's going to be so important for people to watch the entire summit. So thank you for that. – Thanks Dr. Miles.