



How osteopathy can improve our mental health through its impact on the brain, embodiment and the nervous system

With Dr Michelle Veneziano

[The MindHealth360 Show](#)

Episode Transcript

Host: Kirkland Newman

Guest: Dr Michelle Veneziano

The MindHealth360 Show - Dr. Michelle Veneziano

Dr. Michelle Veneziano:

There's no substitute for doing this mechanical release of the brain so that the circulation can happen. No amount of oxygen therapy, no amount of the right supplements, no amount of meditation. If you can't actually get blood into your brain mechanically, all of those things are going to be really limited in their ability to provide relief.

Kirkland Newman:

Welcome to the MindHealth360 Show. I'm Kirkland Newman and if you, your loved ones, or clients suffer from mental health issues, such as depression, anxiety, insomnia, poor memory, poor attention, mood swings, exhaustion, etc, I interview the leading integrative mental health practitioners from around the world to help you understand the root causes of these symptoms, many of which may surprise you, and suggest solutions to help you heal. If you like this interview, please do subscribe and forward to others who might find it helpful. If you want further information, please go to www.mindhealth360.com or find us on social media.

Kirkland Newman:

So Michelle Veneziano, doctor of osteopathy is a family physician and clinical professor of Osteopathic Medicine at Touro University in Northern California. And today, she's going to talk to us about her work with the nervous system and brain health. And we're also going to discuss the emerging understanding of how behaviours of the tongue affect the skull, the brain, and whole-body health. And you're in private practice in Mill Valley in California.

Kirkland Newman:

Now, I'm fascinated by this topic because I'm so aware that your jaw position, your tongue position, your posture, have huge impacts on your mental health. And MindHealth360, we seek to look at all the things that impact your mental health. And this is a particularly subtle, but I think, very, very important and often overlooked aspect of mental health, which I'd love you to talk about. So, I think in a nutshell, most of our listeners probably won't know much about the link between all these things and mental health. And could you just give us an overview of how what you do impacts mental health, essentially?

Dr. Michelle Veneziano:

Sure. Okay. So, osteopathy, as I practice it, is really about optimising the circulations of the body. Brain health has everything to do with inflammation, toxins, getting good nutrients, and getting waste products out so that the brain tissue can be healthy and the brain chemicals can diffuse unimpeded across the cell membrane.

Dr. Michelle Veneziano:

So, I treat a lot of head injuries, I see a lot of mental health issues develop in people who've had trauma where the body just retracts and constricts, and then all of a sudden, they simulate advanced aging simply because the tissues are limiting the ability of all of this good circulation to heal the brain cells. So, my approach is to basically reverse that whole process. I think you're in London. So osteopathy is well understood relative to the US. The difference here is we're medical doctors, so I did a full medical school training parallel with the osteopathic training, because you can become an osteopathic physician and never really learn how to use your hands. But I decided to specialise in that, along with my family

medicine because I'm board-certified in family medicine also. So I tried to span the spectrum and do all of the things simultaneously that support brain health.

Dr. Michelle Veneziano:

There's no substitute for doing this mechanical release of the brain so that the circulation can happen. No amount of oxygen therapy, no amount of the right supplements, no amount of meditation, if you can't actually get blood into your brain mechanically, all of those things are going to be really limited in their ability to provide relief.

Kirkland Newman:

And that's fascinating. And so basically what you're saying is that essentially we know that circulation, and presumably, it's blood circulation, but also other forms of circulation. So the lymphatic system, so that the brain zone immune detoxifying systems, presumably. So what are the key fluids? You have blood, you have the lymph. Can you talk us through the whole detox?

Dr. Michelle Veneziano:

Yeah. Well, we have glymphatics, we have the lymphatics of the brain, which is pervasive throughout the whole skull, the membranes, and even the bones. And then we have the cerebral spinal fluid which is the equivalent of the freshwater system of the body. It's a very small amount relative to the saltwater, which is the blood in the lymph. And really interestingly, the ratio, the proportions of freshwater to saltwater, of CSF to blood and lymph, is the same as the planet Earth. So, in a sense, our whole fluid system is a reflection at a more microcosm of the balance of fluids on the planet. So, yes, they're all extremely relevant, and they interplay. And they all need to be free to circulate and do their delivery of nutrients and clearing of waste products.

Kirkland Newman:

And so the way you approach this, with your work, is you help with the posture, you help with the jaw, the tongue position. So what are the key elements that we have to look at, for our posture, our jaw position, our tongue position? And if somebody comes to you and says, "I'm depressed, I'm anxious, I have insomnia." Where would you look to see where the sticking points are?

Dr. Michelle Veneziano:

What I found is that every one of us needs to be freed up in these major hubs, the cranial and the sacral are hubs, they're like, I'm going to imitate, here's the center of the skull, and then where the tailbone pivots around the second sacral segment. And this whole system is a pump. The whole body is constantly expanding and contracting. We call it this primary respiration. The planet does its own rate. Every living thing, everything cycles all the time. That's what nature does. So it's not hypothetical, although it is not well known. So people get a little confused sometimes when I talk about this, less so as time goes by. But once we free up this pump, we also are freeing the autonomic nervous system. It's like unlocking this system and then re-synchronising it is like refreshing a computer.

Dr. Michelle Veneziano:

What I find, it's not that difficult, I'm very intuitive, so I'll be able to tune into my body, my body gets relaxed when my hands are near the place that the patient's body wants me to start first because it's not random, the body is trying to stay balanced all the time. So it won't let the sacrum go if the sacrum's

holding something important stable up here. So I'll go usually to one of these major hubs, or one of the other junctions that are really significant. It could be the base of the neck, it could be the base of the rib cage, every one of these pivot points play off each other. So they have to be freed up in with an intelligent order that the body directs. And then they all have to be synchronised. So then we get this pump going. And then the reflection of that is that all the diaphragms of the body also come into phase and synchrony and then the pump is back on and the person, within an hour, can completely transform on my table.

Dr. Michelle Veneziano:

This is not the difficult part, the difficult part is maintaining it. So I've had the insight over time that really, we can do so much of this for ourselves. Because a lot of the time I'll have patients with symptoms, and they'll call me and they'll be in distress, and maybe I can't see them right away. And I'll say, "Okay, here's how you're going to free up." Your own cranium and sacrum and the tongue has a lot to do with that. And then the way we breathe and somewhat of our mindset and our ability to tune into the feeling sense of the body so that we can start to have our attention connected to physiologic and healing activity in the body. Somehow, my attention on the patient's body starts to have everything just activate.

Dr. Michelle Veneziano:

We talk about embodiment, what does that even mean? And I'll define it in my way, but embodiment is probably the single most relevant critical piece, I think, to any kind of health and certainly mental health because if you're tuned in and you're feeling, you can also tune into that inner guidance where your body will say, "I actually need more water or I need more of this food and less of this food," and you'll begin to actually feed yourself and cleaning supplements and the people that you're around and maybe the thing that you're doing for your work or how we are spending the other parts of your day. And you begin to have the ability to choose those things that will potentiate this expanded, I call it breath potential, where the body can do this primary respiration and circulate all these fluids which also includes vital energy. Sometimes I feel like I can feel the meridians opening up. All of a sudden this line of connection or communication, it feels like current running through one part of the body or another. And so my endpoint when I'm working with people is to refresh to that place where all of those channels feel bright and open, and the body somewhat integrated. Integration is such an important concept. And then the person spontaneously begins to breathe almost, it's like the cells start to pull the oxygen in. It's not really an effort to breathe anymore. Everything just wakes up.

Dr. Michelle Veneziano:

And so, what I teach my patients is there are ways to sit. I can watch people, and there's tons of research where this thing that we do, especially if we're doing a job we don't love, we start to shrink in our chair, and we literally jam the base of our skull and compress our sacrum and we just put this whole, let's call it a life force lung, as a metaphor of our body, we just deflate it, and then it goes dormant there. And then nothing's right.

Dr. Michelle Veneziano:

You can be in a bad mood, lickety-split. You can also create this contraction from eating a food or making a choice of something that your body doesn't really like. And then it'll just go "argh", and it'll be like a turtle that pulls its arms and legs in and the nervous system will do this, and then it'll pull the bones

down. It can happen, this retraction dormant state can come from a nervous system assault, or from a mechanical assault.

Dr. Michelle Veneziano:

The number one thing I teach people, the day that we do the refresh, is tonight, whether or not they practice with their tongue or not, or have ever tried doing a little bit of a piece of paper here just to keep their lips touching. Because then the brain thinks, "Oh, I can't breathe through my mouth, I'm going to have to put my tongue on the roof of my mouth so that I can breathe through my nose." And what that does is it orients the tongue back to its natural position, across the whole roof of the mouth. And that has basically locked the whole thing in place.

Dr. Michelle Veneziano:

It's really interesting because I learned that in the equestrian world, if a horse is injured, and the tongue is no longer associated with the pellet defaulting there, they're like, "This horse isn't going to recover." They just won't ever get their coordination back where they come into focus and regain that refreshed, full-body coordination and nervous system brightness. They'll never be a champion again. So, so many of us are not champions. And then, we don't look at these things, so we look at the symptoms.

Kirkland Newman:

Exactly.

Dr. Michelle Veneziano:

It was, "Oh, you're depressed. Well, what happened?"

Kirkland Newman:

Exactly. So, just to recap because I think these are all quite complex concepts. So what you're saying is that every assault on the body, whether it's from the nervous system, so maybe trauma, or stress, or anxiety, or whether it's mechanical, so maybe a blow to the head, or to the body, or whether probably it's biochemical, so maybe a toxin or a food that you eat, essentially causes a retraction of the whole system onto itself. And presumably, this is mediated by the nervous system. Is that correct?

Dr. Michelle Veneziano:

I think so. Yeah.

Kirkland Newman:

And so the nervous system, as we know, which controls our state of anxiety and stress or our state of rest, and digest and calm, and is essential for our mental health, and essentially, is mediated by our body, that's where it starts. In trauma therapy at the moment, there's a huge movement and understanding in the last few years of the importance of, as you say, being embodied, and the body, for mental health and for the balance of the nervous system. So what you're saying is that all these assaults on the body, which could be mechanical, or psychological, or biochemical, essentially cause this retraction of the nervous system. And how does your work then help reestablish that equilibrium in the body, in the nervous system, and help people become more embodied? Because obviously, there's somatic experiencing, which helps, psychologically, people get back into their body and release stuck energy, we speak of stuck

energy, from past traumas. How does your work, which maybe is more mechanical, address these same issues from a slightly different angle?

Dr. Michelle Veneziano:

Two things. Firstly, this embodiment piece, when I work with a person, they're instantly embodied, they don't have to do the work. It actually trains the nervous system to remember the location of what it actually feels like to be embodied. So they have some destination to find their way back to. So, every time I work with someone, it's like, this is your music lesson. And then it's going to be easier with me, it's like a tandem skydive, I'm going to do it with you. But ultimately, it's much more rewarding and the work goes so much deeper if you're actually practicing every day. There's no substitute for that. It's like a refresh on a flywheel, it's going to slow down and you can't just speed it up once a month, or once a week for the treatment and think it's really going to gain over time. So I also love that piece where we identify where it is that we're destined when we're trying to get ourselves back to embodiment.

Dr. Michelle Veneziano:

Then once you start to remember the location, and neuro plastically develop neurons for finding your way back, and then staying in that location requires also the nervous system to condition to be able to maintain that state. And once you make some progress in that area, I actually find that the challenges become workouts. Like, "Okay, I ate this food," or, "Okay, I sat poorly, or I have to get on this plane, I don't have a choice to be in this funky air or be in this crowded, overstimulating room." But if you can stay in your body, and you can work with the intensity of the sensations of the inflammation or the irritation, you can actually use it to work your nervous system into a bit more capacity. And that's what I love. I don't treat people like kid gloves, I think we're capable of a tremendous amount. I almost sometimes think the difficulties of the world are here to really challenge us to up our game and get in our bodies because there's no other way to do it.

Kirkland Newman:

I totally agree with you. And so, people who are lucky enough to have you around the corner, I wish I was, that's great. You can help them, you can help them develop this neuroplasticity in this remembrance of what your nervous system feels like when you're embodied and when it's calm, and hopefully, they can get themselves back there.

Kirkland Newman:

For people who are on their own, are there any tips or tricks that you would recommend for people working on their own, who don't necessarily have access to a DO or a therapist on how to become more embodied, and how to support their nervous system and their bodily functions, for that flow of energy to happen and the flow of blood and the flow of lymph, etc?

Dr. Michelle Veneziano:

Sure. This is my favourite part of my work because I used to think, "I have to do this for people." And I became exhausted and I felt like an enabler. And now my joy and my passion is really teaching people how to do their own osteopathy, from head to toe. And so this brings us, I want to talk about posture, I want to talk a little bit about vision, there's a hydration piece. This tongue business is one of the biggest pieces. Probably posture, tongue, breathing, hydration, what we do with our heart, tuning into our emotions, and then this presencing thing. So I'll just go through the six things one at a time. Here's how

to be your own osteopath. The presencing bit is key. Like when I start to feel into, particularly the low body, and I just start with feeling my feet on the floor. And literally, if I'm really feeling blown out or dissociated, I'll start to grab the floor with my toes or inside my shoe. And anything that activates the posterior body, muscle contraction wise, or activation wise, it induces parasympathetic response. The back body is more like, "This is how we are when we're more fully regulated, we're open, we're engaged. And then we do this front body retraction."

Dr. Michelle Veneziano:

And we've seen in research that just sitting without consciousness can shift your mood to depression. If you've seen those studies, I imagine. Where as this upright open position, when people are wanting to be commanding or in leadership, they learn how to actually embody their presence so that they actually have power that they can wield in a room or in their engagements with other people. And there's an electromagnetic physiologic counterpart to that. There's a much more brightness that runs in the body when we're mechanically supported.

Dr. Michelle Veneziano:

So, I have people tune into their feet, tune into their breath, and their pelvic floor. I can feel it right now. I just tune into my feet and I can suddenly feel communication happening. I've practiced this a bit, but between my feet and my pelvis, and once you turn on those, either afferent and efferent pathways in the limbs, the temperature will change. The blood starts to flow. And then the effect and probably a lot of this is how a somatic experiencing helps tuning the attention into the physiology, feeling where there's density or heat or other sensations. And simply the act of tuning into sensation because we have fight, flight, freeze, hide, and then I say rest, digest, heal, feel. So we do any of these four and the rest, digest, heal, feel, any of those things can actually induce more of themselves and shift us to a more regulated restorative capacity in the nervous system. So the presencing, to make it simple, is tuning into sensation in your feet, in your legs, in your pelvis.

Dr. Michelle Veneziano:

And then I have people sit in a way that potentiates. The whole time we've been talking, I've been letting my body slightly unwind. I've never just collapsed in the static and not aware of something going on down there. How I use my sit bones, if you put your hands under your bum, you'll feel that big bone. And then I use it like a ball bearing. Like, oh, there's actually a sweet spot where my breath gets easy, and I'll shift around. And I just do it automatically now, it's quite a natural behaviour. To really re-tune yourself to this behaviour, it'll just happen all the time. It's what babies do, it's what animals do. They're never just static and stuck in one place like a block. They're not solid. We're actually not solid. Even bone is quite springy and filled with fat cells and lymphatic channels and blood vessels and lymphatic fluid.

Dr. Michelle Veneziano:

So, to reorient to this potential of the body to actually behave like a substance, more like a verb than a noun. And to do this too, let me grab this cushion here. You know how in yoga, we always put a little bit of a blanket to support our spine being long and neutral, really, quite effortlessly. And then I like a really sturdy, not memory foam wedge or something to augment any chair. I'll take it with me traveling, or I'll put it in a rental car, or whatever because it feels good. All the good stuff actually is pleasurable.

Kirkland Newman:

I love what you said about the fact that the body's innate intelligence to figure out if you're embodied, you know what you need, you know if you're thirsty, you know if you're hungry, you know what feels good, what doesn't. And that's a super important point, I think, yeah.

Dr. Michelle Veneziano:

It's everything. If you put your attention on what genuinely feels good and enlivening, and wakes up my heart, and has me feel bright, you will get your answer of what is needed in the moment to keep you circulating and awake.

Kirkland Newman:

Absolutely.

Dr. Michelle Veneziano:

Yeah.

Kirkland Newman:

Okay. So the first one is presencing. I know there are six things that you would want to get through.

Dr. Michelle Veneziano:

I probably could talk for 20 hours on all this stuff. So, we get the ball-bearing thing and Continuum movement is a practice that's been around for several decades founded by Emilie Conrad, it's very osteopathic, and there are teachers who do this online. You go into the group class and they hypnotize you into this journey of sensing in the body and it's a really lovely experience. So I recommend that to a lot of my patients because it's so pleasurable, everything is pleasurable and fun. Literally is what lights up our body's ability to even download the teaching that we're giving it. If we're like, "I have to do my exercises". I think there were many studies that showed that we learn many fold more quickly when we're having fun. Certainly in child education. So enjoyment, pleasure, fun. I have people tuning into their breath, coming into the kidneys and the back. We think of abdominal breathing but it's really kidney, renal, adrenal, adrenalin, get that whole lower back body. And Pilates and yoga focus a lot on this.

Dr. Michelle Veneziano:

And then, I'm always tuning in, "Is my heart awake? Can I think of something I'm grateful for in this moment?" There's no joke how powerful probably holding a state of gratitude in the body can overcome so much. I just think even dealing with a food reaction, if you can stay in gratitude and appreciation, 50% easier across the board for everything we're trying to do all of the time, maybe more, depending. That's a little random, but I'm saying it's a lot.

Kirkland Newman:

Okay. And that's not number two, this is still number one, I think?

Dr. Michelle Veneziano:

Well, I skipped ahead a little bit. Because when I teach people to sit, I actually run through all of them. It's all of these practices are part of the sitting practice and the walking practice. There's a way to do all

of this fully coordinated, engaged, body breathing while you're walking. And so I say, it's either a full-body massage with every step, a full-body healing experience, or if we're just rigid and our joints are fixed and our skulls compress. Every step is an impact trauma that compounds. So I tell people, it says, "Would you rather be a noun or a verb?"

Dr. Michelle Veneziano:

And then moving up, the tongue holds it all together. The tongue resting in its natural little groove... Well, we all have distorted palates now. So there are things to troubleshoot with a lot of people. Probably 50% of my patients are challenged in this area. And this is a big reason why they need treatment. Because if this can't happen, the nervous system doesn't regulate. The tongue resting in its neutral position on the roof of the mouth means that every time we swallow, there's about a pound of pressure that pumps the whole skull, pumps the whole body. And it potentiates this glymphatic lymphatic drainage. And it has a profoundly soothing effect on the nervous system because it's a mimic of breastfeeding. So it's this very innate recapitulation of this very foundational experience.

Kirkland Newman:

So, I have heard in fact that a lot of the reason that kids suck their thumbs, and they put their thumbs in the top of their palate is because holding the palate is soothing to the nervous system. And so, are you saying that if we have our tongue in its optimal position, which is at the roof of your mouth, that acts as a self-soothing device for the nervous system?

Dr. Michelle Veneziano:

Massively. Now a kid who chooses to do this thumb sucking is definitely for self-soothing. Sometimes that kid had birth trauma where the skull was so compressed that the tongue palate swallow isn't enough to overcome it. So they're trying to address that additional difficulty, or they're just a really sensitive kid and the environment is just overwhelming and they need more. So it's a sign that something additional is needed.

Dr. Michelle Veneziano:

But when the tongue is working well in the skull, and I have my patients do this the night I treat them, this is what locks it in. Like tonight, we've got to get this, if you don't want to do the tape ongoing, it feels uncomfortable, it's not sexy, and there are just a lot of little details around that. But it's not a pain, it actually feels like a little swaddle. To train the whole face to rest in this steady-state, integrated way, it's really the tape itself can be quite soothing.

Dr. Michelle Veneziano:

So I like to say a well functioning tongue, we swallow 1 to 2,000 times a day, that's about a pound of pressure running through the skull. This has a profound effect on circulation. I have a couple of functional MRIs, one of someone singing, where just the movement of the tongue in the skull and the muscles in the back of the throat, you can see the whole brain vibrating and also a heartbeat. One single heartbeat echoes through the whole skull and moves, potentiates circulation in every brain cell. So a pound of pressure, 1 to 2,000 times a day from swallowing, this is a profound mechanism.

Dr. Michelle Veneziano:

So I remember in biology in 10th grade or something learning about these invisible cilia in the throat that we'd happen upon coincidentally incidentally discovered this invisible mechanism, but additive over the day, it moves a tremendous amount of mucus, but you might never know it's there. So additively over a day, a well-functioning tongue, I say is like having an osteopath living in your head, it's just going to keep the whole body on track. It orients like the rudder of a ship this entire mechanical coordinated expanding and contracting behaviour. I've seen this now after years of practice, I can feel the body come into electromagnetic integration. And the nervous system simultaneously comes into integration. They're the same.

Dr. Michelle Veneziano:

In the Vedic tradition, they talk about the prana body, the electromagnetic body, coming into integration with the physical body into phase. And then the nervous system actually comes into regulation simultaneously. So most of us don't feel our energy body, that takes practice. And more and more people are able to do it, though. It's wonderful. But we can feel what's happening with our nervous system. So I'd say by corollary, it follows that. Once we get our nervous system regulated, we're electromagnetically more in a harmonious steady-state equilibrium.

Kirkland Newman:

Okay, so that is all fascinating. And it's really interesting, but it's quite complex. So that you swallow 2,000 times a day on the top of the mouth and the pressure. So the impact that that has on the brain is to boost the circulation of both the blood and the lymph and the glymphatic system, is that the mechanism of how it works?

Dr. Michelle Veneziano:

That's the mechanism. So there's a mechanical piece, a pound of pressure. Every time we swallow 1 to 2,000 times a day, literally, mechanically, actually pumping the whole body because of the coordinated effect of any motion. Any cell moves, every cell moves, ideally. So there's a huge mechanical effect that literally helps the lymphatics drain and the blood get in. And then there's the regulating of the nervous system piece. Because if you get that self-soothing effect, and the fight or flight comes down, and we're more in a restorative open state, we are actually able to heal more efficiently in that state.

Kirkland Newman:

Yeah. Absolutely. You need your nervous system to be balanced and regulated so that you can heal for sure. And so this pumping from the tongue, is there a position that you need for your tongue to be in for it to be most effective? And are we dysfunctional in that way, in our society that we don't use our tongue optimally to help pump this in the brain?

Dr. Michelle Veneziano:

It's so huge. And I've been making so much noise about this probably for 10 years. And then this year, I don't know if you've seen the book *Breath* by James Nestor.

Kirkland Newman:

Love it.

Dr. Michelle Veneziano:

It's really, really... Everybody's like, "Wow, the tongue is so important." And I'm like, "Yes, it is."

Kirkland Newman:

Ta da!

Dr. Michelle Veneziano:

So, he's made it popular and sexy. And it's really been helpful to my teaching of people. So the most important thing is full contact especially in the back, the soft palate. Because this is where all the whole polyvagal's superhighway back here. And so most of us actually don't have great contact there. And you'll see these people because the tone of the tongue underneath will, let's see if I can show you here. So when my tongue's where it needs to be, you're going to see, you ought to be able to get a nice, almost a full finger in the space when you swallow, if the tongue is going up to the soft palate, the back of the mouth, roof of the mouth. See what I'm talking about? Can you see it?

Kirkland Newman:

Yeah, absolutely.

Dr. Michelle Veneziano:

And then most of the time, no one's doing anything. Many people are doing nothing with this. And then because of that, their airway actually doesn't quite fully develop. And the tissues, the tongue is lapsing into the airway. So they'll do this to open the airway to get more air. So this person with this tongue palate dissociation begins to have this kind of posture, and they begin to have almost even a diagonal shape to the neck and jaw area, and they'll have a lot of loose skin here, but then it will travel all the way down the body and they'll tend to have a very flat butt because they're not using any of the posterior muscles, they're very retracted anteriorly. The coolest thing is, once we reset this, and then get the tongue to hold it in place with its right action, I've seen people's back body start to recruit and all of a sudden, they start to grow muscles back there that they haven't had since they were kids or maybe never had.

Dr. Michelle Veneziano:

But we're talking about restoring to a very natural innate state that whether or not we expressed it was in our DNA to have it happen and then maybe it got derailed along the way with toxins or poor nutrition or trauma, all the things James Nestor talks about in his book that have derailed us.

Dr. Michelle Veneziano:

But then there's the part where we have changed over time because of many things, the toxins, the way we use our bodies, and then the way we chew food, like he was talking about, how once food we begin to be able to cook, we no longer are doing this work with the whole mouth that keeps it conditioned, we use the tongue differently, we don't grow our faces out. So we all have challenges to work with in this good breathing, nervous system regulation area. If it's crowded back here, you won't get out of fight or flight. It's like, the uvula, the little... when the doctor says, "Say ah," and they're looking to see if that thing, it's a test for a vagal tone. And if the tongue is crowding the back of the throat, and constantly collapsing the uvula against the back of the throat, we can't breathe, there's a continual alarm going off. And so that person, whenever we're out of neurologic regulation, the whole body is holding its breath. And then you're going to have all the brain chemicals stagnate and not be able to do their osmotic

diffusion across cell membranes and really efficiently cycle. They break down, they need to be regenerated. So there's a whole delicate balance of those brain chemicals and the nutrients needed and then getting the waste products out. So nervous system regulation is critical to brain health. And then like I said, it ties in with all of this mechanical stuff. It's all one thing, it's hard to separate it out.

Kirkland Newman:

Well, this is fascinating because obviously, the polyvagal theory and the vagus nerve, they're essential for the nervous system. And what you're saying is fascinating that the impact of the tongue and the jaw on the vagal tone, and on the vagus system, essentially.

Kirkland Newman:

And I'm also thinking about what you were saying about the tongue blocking the uvula. And that happens a lot at night. People will have airways restriction when you're sleeping, and your tongue collapses against that. And that then probably generates this fight or flight. And that's maybe why some people wake up in the middle of the night. I know I do with anxiety because I know it's because I haven't been breathing properly. And it's not that I have sleep apnea, it's not as bad as sleep apnea, but it's this airways issue when your tongue collapses. Is there something that you can do about that?

Dr. Michelle Veneziano:

Yeah.

Kirkland Newman:

If somebody is night waking with anxiety and panic attacks and insomnia, would you look to their tongue position and their jaw? Is that where you'd go?

Dr. Michelle Veneziano:

Absolutely. But as a quick intervention, I think almost everybody could benefit from a mouthguard on the bottom teeth, never on the top, the convention is on the top for no reason that any dentists can justify, but no orthodontist has been able to give me a good reason. And also, it isn't helpful with getting the tongue up there and having this pumping action. You don't want anything fixed across the teeth on the upper teeth ever. So I have people go to dentists that understand these things to create enough vertical dimension so that the teeth can pass each other. There's a sweet spot, and then there are night guards that'll just pull the jaw forward a little bit. Even people working with their tongue, we don't want the jaws slipping back some way that we're using our face on the pillow or if we turn into the pillow, we don't want to ever be pushing the mandible, the lower jaw back. We want to start to practice to bring everything a little bit forward.

Kirkland Newman:

Because that gives you more room in the back which will allow more air and also more space for the vagal nerves?

Dr. Michelle Veneziano:

Yeah, it's a little bit of a bandaid. The mandible follows the development of the maxilla, this upper part. So we work on bringing that out and then the mandible will follow. But simply for troubleshooting sleep at night, it's helpful to just widen the airway a little bit. When we intubate a patient, when we have to

put a breathing tube down, we do this because we get the biggest airway where we can visualise the vocal cords to get the tubing. And that's why people do this, same posture, trying to get air during the day. But then we want to make sure that the person is able to get air in at night or they don't sleep. That's absolutely critical to mental health.

Kirkland Newman:

Absolutely.

Dr. Michelle Veneziano:

Right?

Kirkland Newman:

It's terrible. People who don't sleep, a lot of the time people think, "Okay, it's because I'm anxious," but sometimes it can be purely mechanical. For instance, James Nestor, in his book *Breath*, it was incredible, because he was talking about how the ratio of CO₂ to O₂ could cause a physiological panic attack, which had nothing to do with the psychology, it was purely physiological.

Dr. Michelle Veneziano:

That's right.

Kirkland Newman:

So it had to do with these chemo cells or chemoreceptors in the brain which dictates whether you feel that you can breathe or not, and this has to do with the CO₂:O₂ ratio. And so, this was very interesting for me because I thought, "Oh my God, we always think these are psychological issues, but actually, it's a very physiological issue." If you can't breathe properly in the middle of the night, you could have a panic attack or have anxiety or not be able to sleep purely for mechanical reasons.

Dr. Michelle Veneziano:

Absolutely. And here's the second layer on that which he also talked about, which is when we breathe through our mouth, we're losing the carbon dioxide that's creating the benefit you just talked about, because we need to keep our blood carbon dioxide levels up to actually stimulate the reflex to breathe. But when we breathe through our noses, we get the added benefit of receiving nitric oxide which is produced in the sinuses. And that's a vasodilator. And that chemical flooding, the body is basically the big part of the chemical cascade that's elicited with pleasure. And that's why I focus so much on the enjoyment component of anything that we do because that also increases nitric oxide and oxytocin and other beneficial effects in the nervous system that have us expand more.

Dr. Michelle Veneziano:

So if we're able to relax and expand from just some other effect, anything that has this grip less has to tolerate any other assault better, if we can't get quite enough air in. But if we've had a really lovely day and we're in a really good mood and we feel safe, the body has more range to tolerate a limitation of a little less air than we need or the wrong density of mattress, or we ate too late. It's all of these variables that lead up to critical mass and either we stay inside of our range, or we go outside of our range. And then we deer in headlights freeze, and then we have to troubleshoot all these little pieces to get back inside the window. And then we'd like to expand the window. So all these practices together that I've

talked about, are how I have people basically neuro plastically retrain their bodies to expand their capacity for regulated states.

Dr. Michelle Veneziano:

So in summary, it's basically mountain pose and yoga. Yoga describes if you want to dive more deeply, you could explore how basically we're being yogis all day while we're commuting and at our desk, and we're being conscious of what we're doing with our tongues and cleansing or keeping a little bit of a check on our tendency to go into negative looping thoughts. It's a little bit of a snowball effect. You sleep poorly, you're going to wake up looping in negative thoughts because you're going to be in vigilance.

Kirkland Newman:

100%. And so you're saying that so much of mental health is tied to your nervous system, essentially. And so much of that is determined by assaults to your nervous system, whether they're chemical or whether they're mechanical, which I think is fascinating. So you mentioned six things that you're looking for. And the first one was presencing?

Dr. Michelle Veneziano:

Presence, feeling the body. The second one was walking and sitting to potentiate this expanding and contracting behaviour. I do it all the time, I could be reaching for something on a shelf. The third thing is the tongue consciousness and even when you're talking, see if you're breathing through your nose during the day, while we're eating. And then the fourth one is the breath and the 360-degree breath that attends to this kidney, adrenal adrenaline area and has us also be able to work with feeling the breath, waking up the pelvic floor, all the diaphragms. The cranial membranes are another diaphragm. They all have to be working together. So I like to feel my breath through the whole body, and that's a practice, skill develops over time. So then number five, I talk about hydration, that's the one we haven't talked about. Six is cardiac, the heart stuff. But the hydration piece, think about it, if we want to really be a fluid, we can't be dehydrated. Most people walk in and they feel like beef jerky in their bodies, it's been in this shrink wrap, the nervous system to me is everything. It's everything. I actually spoke with Stephen Porges about this. I remember telling you about this because, in osteopathy, we've had physiologists postulating these things for decades. And I remember he wrote something about how 90 plus percent of illness is really related to the nervous systems stopping, it's not responding anymore, all bets are off. To me, it underlies all disease. And he said, "I agree," but I didn't put it in writing exactly that way. That's just his educated professional view.

Kirkland Newman:

I totally agree, I think a dysregulated nervous system is behind everything. And people get cancer, or diabetes, or mental health issues, depression, anxiety. All of these are linked to the nervous system. And we think of the nervous system, again, in terms of psychology, but it's also in terms of very much physiology. So we could have mould poisoning, or toxin, or Lyme disease, which is an assault to our nervous system. And that's, I think the trick that we're missing in conventional medicine is that this is so crucial.

Dr. Michelle Veneziano:

It blows my mind because like I said before, so we all agree this nervous system piece is a lot, if not everything, and then the physical and subtle body, energy body, the correlation is the reflection of that.

Dr. Michelle Veneziano:

So, when the body is integrated this way, energy body integrated with physical body, nervous system integrated, we could correct just about anything. I see people restore from incurable things all the time. And this seems to be, well we're going to go off on a tangent if we talk about how cancer heals this way. But basically, nervous system integration, subtle body, physical body integration, optimises healing. That's how we do it. That's it.

Kirkland Newman:

Okay.

Dr. Michelle Veneziano:

So the hydration piece, stay on track here. All of this integrated state that potentiates all the circulations, that's how we started this talk. It's all about circulation. I learned in medical school, in surgery, the solution to pollution is dilution. And then in terms of circulation, I also think of vital energy circulation, that's a piece of hydration.

Dr. Michelle Veneziano:

There's a book that came out last year by anthropologist Gina Bria and an MD Dana Cohen, that's called Quench and it talks about how looking back on how our ancestors and different lineages on different parts of the planet where water was less available, actually, it's more efficient and more natural to get our water from more biocompatible water comes in this form of foods, whether it be fruits or root vegetables, or I use always something that biologically optimises the water that I drink. I actually do some energising of my water with, it's a little bit of a hobby of mine, figuring how to restore water to the state that it exists in nature. So lightning hits a body of water. Water actually is a unique molecule in that it can hold a charge and it can deliver that charge to your body like sunshine.

Dr. Michelle Veneziano:

Sunshine hydrates, too, because it takes the water we have, it charges it and it creates a more efficient hydrating effect, which is that the water that we drink or the water in our bodies has the ability to support metabolic processes. It's more compatible with the cell wall so it can get into the cell, carry nutrients on its way in, and dilute nutrients and remove them on its way out. That's how cancer heals.

Dr. Michelle Veneziano:

As a matter of fact, when we're talking about hydration, it's the most efficient form of detox and when you look at phasing or measurements that look at impedance, like the electrical impulse across a cell wall over a certain number, I think it's like four and a half, cancer really can't happen. The cell is too optimised. So, a lot of cancer treatment, they talk about green juicing because green juicing when we get the fluid from the inside of plant cells, it's much like the inside of our cells and that water, that fluid, it's like fivefold efficiency for getting intracellular, which most of the water we drink right of the tap does not do. And then fivefold more efficient in hydration just actually getting the tissues out of that beef jerky state, but also carrying the nutrients in and getting the waste products out.

Dr. Michelle Veneziano:

So these five or six things, they're all pretty enjoyable. They're all pretty innate, not weird things that our body is not native to. They feel good and they're super high yield. I'm a busy mom, I want to be doing things. I don't want to be managing my health and buying tons of supplements and doing any kind of exercise that doesn't feel amazing. I'm just not going to do it. There's a big thing where, what is it now that in order to stay healthy, we have to spend so much time on self-care, we can't actually go out and live and have fun? I think we have to be having fun.

Kirkland Newman:

I think that's so true. And not fun, I guess in a destructive way. Like for some people going out and having fun is drinking too much or taking drugs or whatever. I guess that's not what we mean by fun. But I guess, it's whatever rocks your boat, whatever gives you joy. Is that what you would say? And then in that state of joy, what happens to the nervous system?

Dr. Michelle Veneziano:

Well, this has a lot to do with mental health. Because when we get a little dull, like the unintegrated body that's not circulating well is like a dull light bulb, and then we just lose our desire. We're not motivated to go and really be socially interactive. And remember that engaging in the nourishment of connecting with other people, we start to just not feel safe intrinsically. That has not necessarily anything to do with the people that are around us. But we start to retreat. And this is a huge component of mental health. And one of the most regulating behaviors of the nervous system is connecting in a resonant way with other people.

Kirkland Newman:

Social engagement.

Dr. Michelle Veneziano:

Mammals.

Kirkland Newman:

Mammals.

Dr. Michelle Veneziano:

Like my cat, I'm like, "I'm busy." "No, no love is the most important thing." She's just reminding me all the time.

Kirkland Newman:

Time for engagement. And this brings me also to your sixth point, which was cardiac. Obviously, the vagal system is very tied into the cardiac system. The nervous system is very tied into the heart system. Can you talk us through a little bit your sixth point which is cardiac and how that impacts mental health and our nervous system?

Dr. Michelle Veneziano:

Oh my God, yes. This is it. When I'm treating people mechanically, and I'm looking at the electrical systems, everything stems from the heart. The heart is like the sun of the solar system of everything in

the body. So, when we do this refresh, it's like we're re-establishing our solar system. And we can maintain it by staying present in our heart and tuning into gratitude and appreciation. It's the simplest nutrient. I guess it's a learned behaviour. I think as a culture, we're fairly addicted to complaining and suffering. We just neuro-plastically get used to doing those things. And we don't even notice that that's where we live now.

Dr. Michelle Veneziano:

So I write probably depending on my mood, I can sit down, I don't think I skip a morning, at least 10 things I'm really grateful for. And I can feel my energy starting to mobilise. One time I went crazy. I think I just kept writing and I got up to 100 and I felt like I was starting to see a slightly hallucinogenic experience. The energy in my body, a really deep meditative experience or yoga experience. It's like my life force lung capacity just kept going. So, if you're ever going to do one thing, I'd say do that.

Kirkland Newman:

Do the gratitude.

Dr. Michelle Veneziano:

And obviously, the heart is the intelligence supercomputer of the body. It directs everything, it directs the brain. If the brain is operating without the guidance of the heart, we're certainly not as intelligent. We can't tap into our knowing, our intuition, or really that much innovation or inspiration. That's where genius comes from. And you know probably from your reading that there are many more, 40 fold, communicating pathways from the heart to the brain than the other way around.

Kirkland Newman:

Absolutely. So the afferent is opposed to the efferent nerves. Yeah. Same as with the gut, there are a lot more nerves going from the gut to the brain than the other way around. And so many of our nerve systems go from our body to our brain, rather than the other way around. And people don't remember that. And so it's so important, as you say, to be embodied.

Dr. Michelle Veneziano:

So much more fun. My gosh, if your mechanism was reversed, well, we live not in our hearts, we live in our heads and things just don't work there. Health doesn't work, the planet doesn't work, inter personal things don't work, politics doesn't work, medicine doesn't work. So I watch as we're finding our way back to... We're top-heavy now, we're finding our way to the ballast shifting position.

Kirkland Newman:

Yeah, the 18th-century enlightenment was all about cognition and the brain and the intelligence and now we seem to be moving more towards a body-based intelligence with a lot of the recent developments in terms of the polyvagal theory and all the trauma work and the embodied systems, which I think is a really great thing. And you mentioned the heart and how important that is, and gratitude, but what about things like heart math and breathing in and out of your heart? What's your view on that?

Dr. Michelle Veneziano:

Yeah, that's basically what I understand heart math to be is getting present in your heart and feeling. The heart rate variability or regulated state of the nervous system reflects how heart-centered we are. So it's a biofeedback device or a practice that allows us to watch how our level of appreciation and gratitude reflects in physiologic parameters. Yeah, that's what we're talking about. I think their research goes back to the 90s. It's such a really phenomenally supportive and brilliant body of work that I think has taken quite a long time to penetrate.

Dr. Michelle Veneziano:

Because I just did a course, I did an 18-hour course on this, how to be your own osteopath for doctors who they don't know any of it mostly and then how to really teach it to your patients. And I was doing like, Paul, "How many of you have heard of heart math and use it with your patients?" It's very conventional, somewhat holistic-leaning... even in the holistic-leaning, it's still not as well known, more so than a year ago. So I do think this is the time when we're becoming more open possibly as a function of necessity, possibly as a, simply just a trend in our evolution. It feels like we're at a really, really ripe place to go get to the other side of some pretty major things into a new place.

Kirkland Newman:

I would agree. And you mentioned earlier one more thing in terms of consciousness and expanded consciousness when you do your meditation. What about psychedelics? The expansion of consciousness that comes from psychedelics, there's been so much research lately, in terms of the benefits of psychedelics for trauma, anxiety, panic, all sorts of psychological issues, and the research that's coming out is really quite impressive whether it's MDMA for trauma and anxiety, or whether it's psilocybin. How would you bring that back to what you do, if at all?

Dr. Michelle Veneziano:

I think about it a lot, actually. I think that safety is key. We have to actually support the nervous system and create the environment in which the body can receive the medicine and be re-patterned and move safely through whatever it is that the body has to process, which can sometimes be very big things. So I'm very careful about who, I wouldn't certainly attempt treating large trauma in a vacuum. I'd find your people, really word of mouth. Honestly, I love autonomic response testing that Dietrich Klinghardt uses and many holistic practitioners use as a way to determine if, on this day with this person, this substance and this amount with this guide elicits a resonant response from their physiology. So it's always "feel over formula". And I often say to patients, "What did your body say? In this moment, are you breathing less?" Maybe there's also a part where you can be apprehensive from excitement that you know you're going through something. So it really helps to have reflection from a holder, to be in a place where you can be supported as you go through whatever the process is.

Dr. Michelle Veneziano:

I'm not particular to substances myself. I actually know we can produce most of these effects internally, but I've been a little bit curious lately. My body is like, "I want to do iowaska" and my body is like, "No, you don't. You don't need to do that." But lately, I've been more curious and learning a little bit more and finding certain people, certain directions, I'm noticing my attention is being pulled with a little bit of curiosity. So, I like to say, ask the body. And if you don't know how to do that, work with some people who do know how to do that.

Kirkland Newman:

Absolutely. And then one final thing, just to recap what you were saying, you talk so much about safety and the nervous system being regulated. Would you say that the work that you do when you work with the body, and when you work with its movements, and any blockages, is the work that you do fundamentally about making the body feel safe so that the nervous system can come down and it can heal? Would you say that's accurate?

Dr. Michelle Veneziano:

Yeah, definitely. I have my way now. I've been a practitioner for 20 years, and I have definitely my way of reading the patient. So I'm responding to cues that are neuro, I'm just trying to remember Stephen Porges's term from neuroception. I can actually tell, it's like I'm the horse and they're the rider. I'm reading them, like, are they going with this thing that I'm doing? In real-time, I'm making sure that I'm getting a muscle test or an autonomic response testing. I'm constantly reading, is the nervous system flaring up or is it dropping in? And I just follow the drop-in. And that's what we do also, create safety for ourselves, when we tune in to our own body cues, through tuning into sensation. And then we can go further and learn more and clear more trauma and restore more.

Kirkland Newman:

And presumably, this is why mind-body therapies, whether it's Qigong or Tai Chi or yoga or even dance movement can be incredibly healing because it helps you become embodied, is that correct?

Dr. Michelle Veneziano:

Absolutely. That's why my sitting practice is a movement practice. Remember the verb, we're verbs, we're not nouns, we're actually meant to be moving all the time. And then if we're sufficiently hydrated, and our heart is bright, and we're tuning into every joint, we're actually micro moving constantly.

Dr. Michelle Veneziano:

So, pretty important for busy people because I don't always have time to set aside for my Tai Chi. I prefer Tai Chi, and sometimes I do Tango dancing. I really love to be out in nature swimming in really ice-cold bodies of water. I don't know, it's not always convenient. And I'm doing my practice 24/7, and the body is meant to rest there in steady-state equilibrium. And then even if I've been traveling for two weeks, and I haven't been to a yoga class, or maybe in months, I haven't been to a yoga class. But because I'm slightly conditioning all the time, I can be faced with an adventure and my body is ready to go. Yeah.

Kirkland Newman:

Yeah. That is amazing. When I look at you, I'm like, you're going to live forever, Michelle. I'm like, we should also [crosstalk 01:03:00]

Dr. Michelle Veneziano:

I haven't yet told people my age, but nobody believes me just so you know.

Kirkland Newman:

You look incredible. You're amazing. I won't mention your age on this podcast, but you really look amazing and you've got this amazing energy, you're so lovely. So, where can people find you and find out more? Obviously, I'll have this in the show notes. But for people who are listening.

Dr. Michelle Veneziano:

Yeah, I'm practicing teaching, it's really fun for me to practice. Obviously, drilling down the talking points of this broad subject is so challenging. And really, it is a co-regulation, social engagement experience that brings it out. So I'm practicing teaching. I just created a Facebook on, I can't even talk now for some reason. All those compliments just overwhelmed me. I'm just kidding. I created, I called it Osteopathic Flow Practice Study Group on Facebook, it's free. And I'm basically having podcast talks like this with people on their issues. And that way we keep listening to the material over and over. Layering, repetition is key to patterning into the nervous system. And so I can be reached there too. I have little polls and I have little things people can just participate in. And then I've written about all this stuff. So all my blogs are available there. I'm going to do this 18-hour course I just did for medical doctors, I'm going to recreate it for all people. That's what I'm doing this year. So I'm really, really excited about that. The Facebook group is how I'm just developing my talking points and my style of teaching. It's really exciting.

Kirkland Newman:

That's super exciting. So we'll look out for you, Michelle Veneziano, DO and I'll have all this in the show notes. But Michelle, thank you so much for your time, that was fascinating. And not something we think of in relation to mental health necessarily, but really key and crucial. So I really am grateful. Thank you.

Dr. Michelle Veneziano:

Grateful and thank you for having me.

Kirkland Newman:

Thank you so much for listening to the MindHealth360 show. I hope that we've helped you realise that mental health symptoms have root causes that can and need to be addressed in order to sustainably heal, and have given you some ideas about steps you, your loved ones, or clients may take to start their healing journey. Please share this interview with anyone you think may find it helpful and don't forget to subscribe to keep up to date with our latest interviews on integrative mental health.

Kirkland Newman:

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