

## **Control Stress and Regulate Your Nervous System in 5 Steps – Lisa Wimberger with Dave Asprey – #771**

Announcer:

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Dave Asprey:

You're listening to Bulletproof Radio with Dave Asprey. Today, I get to say something I haven't said, at least not very often on the show. We're going to talk with someone who was actually struck by lightning. I think you can probably tell this, actually lived, because otherwise, it would be a really boring interview. But the lightning strike at age 15 also turned on a grand mal seizure disorder that lasted for the next 20 years. A person who's meditated since she was 12, probably the wrong way, because otherwise the lightning wouldn't have struck her, just saying. Anyway, she used those tools to manage seizures in a way that was actually doing bad things to her.

She just didn't know it. The seizures got worse. She flat-lined in a doctor's office during an exam. Did it again in front of her young daughter and decided, all right, I'm going to have to hack this, and she went on to find a way to do it. Her name is Lisa Wimberger and she created something called the NeuroSculpting Institute in Colorado, and has written seven books on neuro-plasticity and stress management. Today, we're going to talk about brain and treatment, stress management, meditation practices that actually work and don't cause harm. Lisa, welcome to the show.

Lisa Wimberger:

It's so good to be here. So excited to talk to you.

Dave:

Now, this is something I don't think I've ever talked about on the show. It's hard to remember after like 900 episodes, but I grew up with a mother who had epilepsy. She was on a substantial anti-seizure drugs and had seizures on a very regular basis. I know a thing or two about this thing called epilepsy. Eventually she ended up having a brain surgery, which helped resolve some of it, but it also left her with some disabilities. It can be a big deal, though she wasn't struck by lightning, but she is from Roswell, so maybe there are aliens. I'm not really sure.

Lisa:

There you go.

Dave:

All right. I just have to start with this. What's it like to get struck by lightning?

Lisa:

It sucks.

Dave:

Well, obviously.

Lisa:

I didn't believe it happened, to be honest with you. It came out through a garage door handle that I was leaning against, so the side of the house got hit. There's a bunch of friends standing around and I was leaning against the garage with a friend, so we were shoulder to shoulder, and then lightning came out through the garage handle, which was at the base of my spine. Out through the spine, and both he and I were thrown from the garage door like three feet, landed face first in the dirt and all of our friends staring mouths open, just like saying, "Oh my God, you got hit by lightning." I honestly didn't believe it happened. I was conscious, I was in excruciating pain, like a sledgehammer. I remember looking at my watch and it was stopped.

And then we went back to my friend's house. We were on vacation and it had been raining and we were all wet, and I was in shock and he was in shock, and we just went back to my friend's house and they ran and they said, "Lisa was hit by lightning." Of course, nobody believes a 15 year old that says it, and there's my birthday cake on the table and I'm in complete dissociation and just sit down and start eating the cake and really didn't buy the story. Then about two weeks later, I started having blackouts, which I thought I was having fainting spells. When you're having seizures, you're not conscious that you're having seizures. I think I'm fainting, and my friends are finding me on the floor. I'm embarrassed, I'm hiding it. I'm not telling anybody.

Very, very long story short is I started having seizures right after the lightning strike and they persisted and got so much worse over the next few decades. There was no diagnosis. I mean, I did go to the doctor when I was like 17. Because I had told my parents this was happening, but they had never witnessed one, so they took me to the doctor, and you'll appreciate the fabulous diagnosis I got, which was, oh, you're hormonal. That was it.

Dave:

Well, it's better than crazy, which is what [crosstalk 00:04:43] more likely to say. Right?

Lisa:

Yeah, I guess so. So, I was hormonal and they didn't do anything. Then I just stopped paying attention to them. They were wiping me out. I was having a couple of years, so not as frequent as an epileptic would have, but they were vasovagal seizures, grand mal tonic seizures. I was going into bradycardia. My heart was stopping. I was turning blue and the recuperation period just was horrible, and it was getting worse and worse because all neuroplasticity gets you better at anything you keep doing. So, I was getting really good at having seizures and really bad at recuperating. It was the gift. It was a gift because it's the reason I do my life's work. But it was really, really a rough time.

Dave:

I can believe it. Since then, you've either become the most interesting or the most scary person in the world.

Lisa:

Probably both. Ask my daughter, she'll tell you both.

Dave:

I'm going to go with the most interesting, and there's so many touch points. My good friend, David Perlmutter, has been on the show several times wrote the forward for your new book. Dr. Rick Hanson has been on the show, endorsed your neurosculpting book. You've followed Dr. Porges, has been on the

show, and even our friend, Jody Levy from vitamin water, has been an investor in some of my companies is working with you on the app you have around this. I feel like I'm amazed I didn't talk with you, but okay, so then ... and Gabrielle Lyon is the one who said, "Dave, you should talk with Lisa."

I started digging up your background as some of my prep for the show. Man, okay, you've got all your certification, or certification in NeuroLeadership and medical neuroscience, neurobiology, visual perception, which is an area of real interest for me. But then you're like, oh yeah, Omega Institute, the Law Enforcement Survival Institute. Oh, four years with Ishaya monks and psychic awareness training and autogenic hypnosis.

Lisa:

Yes.

Dave:

Are you remotely controlling my mind right now?

Lisa:

I have been this whole time for years.

Dave:

You've done some serious heavy duty esoteric [inaudible 00:07:08] years with monks and all this stuff?

Lisa:

Yeah.

Dave:

We've all seen the movies where you get struck by lightning, you develop psychic powers, super powers and extra arms, depending on what movie it is. Do you think it did something weird to you?

Lisa:

You're asking the question that's going to cause me to have to tell the truth now to the world.

Dave:

That's my job.

Lisa:

Yeah, it definitely heightened a bunch of stuff. I mean, I was always a very intuitive person, but it heightened pretty much everything, including my maladaptive disorders like dissociation. It heightened intuition, it heightened fantastical perception, it heightened some kinds of synesthesia, and it heightened the dissociation and delusion, definitely heightened delusion. I mean, I think I was delusional for a very long time around not listening to my body and pretending my body wasn't doing what it was doing. It heightened everything. Yeah, I don't even know why my background is what it is. I mean, I'm a New Yorker. I'm a Long Island Sicilian girl. There is no explanation why I should have such an esoteric background, because it certainly was not like the family, right?

Dave:

You were raised by hippies?

Lisa:

No, I was raised by Roman Catholic Sicilian, first-generation Sicilian Roman Catholics. Definitely not hippies, but my brother, my older brother, he was into the Grateful Dead. He came home from college one day when I was 12 and he was like learning some cool self-hypnosis from this really cool professor, and he was just teaching his little sister. He taught me my first, I guess introspective techniques, and they blew my mind. It was like a fish to water. I just knew this is my path. I was a fanatic. I was meditating every single day, dream journals, meditation journals. I started doing self-hypnosis prompts and creating my own self-hypnotic triggers and doing all of this at like 12 and 13, long before the lightning.

But then when the lightning event happened and I started getting even more uncomfortable in my body, I grabbed onto those metaphysical practices even more because they allow you to dissociate from your body. I kind of had an invitation to go deeper into things like the metaphysical work. I think I was 19 when I met the Ishayas. It's fair to say they were a cult.

Dave:

Tell me about that group. I don't actually know much about them.

Lisa:

Yeah. I signed up for a meditation workshop on Long Island. It was a workshop that was happening in Brooklyn, and I get there and a friend told me about it and it's these beautiful smelling people. They smelled like sandalwood and they had this beautiful names.

Dave:

Like potpourri spray.

Lisa:

Yeah. Beautiful names like [Durga 00:10:35] and ...

Dave:

[Snowleaf 00:10:37].

Lisa:

Yeah. And they're wearing these robes, and they were teaching a form of transcendental meditation. It was called ascension. It was a derivation of TM out of a core group of people that had migrated from Seattle to North Carolina, and now where they're teaching in Brooklyn. Their practices were amazing. I mean, I absolutely benefited from the ascension techniques. I would go do cycle weekends with them in Brooklyn. You'd go on a Friday night, you'd be meditating all Friday night. All Saturday, Sunday, you'd break for meals in silence, and you'd leave Sunday all tripped out, like blissed out, tripped out.

Although it would take me like eight hours to actually get into the meditation. Driving on the Belt Parkway into Brooklyn, I'd be so aggro Friday night, and I'd be sitting there with my eyes closed like, are you freaking kidding me? I have to meditate. My mind's like, okay, the guy next to me is breathing

really loud. I hear the refrigerator, the damn cat box, they didn't clean it before I got here. All the aggro stuff. By Saturday afternoon, I would start to chill. By Sunday night, I'd leave there, totally tranced out. I to say the ascension techniques saved my mental sanity because I was a public school teacher. They saved me from killing children. That's how bad I couldn't handle my stress, but the ascension techniques totally saved me.

I have nothing but gratitude to the Ishayas. There was a lot of dogma that went with it that I chose not to take, just use the techniques. But it was powerful, and that was TM. I had already been doing like my own homework around energetics, but then it was a few years after that I stopped studying with the Ishayas that I started a four year curriculum in Denver with a school that was teaching from the curriculum of the Berkeley Psychic Institute. It was like three and a half years really.

Dave:

Like remote viewing, reading people's minds, all that kind of stuff?

Lisa:

Like all of that kind of stuff, to the point where I ended up co-facilitating various workshops with Dale Graff, who used to run the STARGATE program for the CIA. He worked at Stanford and he ran it for its duration and he and I have co-taught and I've gotten to be a part of some cool studies at CU Boulder and the Energy Engineering Labs, where they were having me remote view and hooking me up to machines. Fun out of this world kind of stuff, but really didn't do much for my sense of grounded self, which was always the problem.

Dave:

You mean remote viewing and astral travel doesn't make me feel grounded? Lisa, deuce.

Lisa:

Not at all. Which was part of the problem I always had. These fantastical experiences, but not having anything pragmatic or grounded, and my body was screaming at me to just get my head out of my butt and go tend to this reality right here.

Dave:

It's really fascinating. You went super kind of out of your body after all that electrical stuff, but you've talked about your vagal nerve and you've also gone really deep on that. How did you move from the, okay, I'm going to go to the very edges of what humans are capable of. By the way, if you're listening and saying it's all BS, there's pretty good evidence now that these things do work. There's many books written about it with real studies and all that stuff. They're just hard to do. They take work, and probably not everyone can be very good at them. Maybe being struck by lightning makes you good at them, or maybe that's just who you are. Which one do you think it is? Is it the lightening or is it who you are?

Lisa:

Maybe a little both. Who I am is willing to do it, and then the lightning kind of opened me up to touching it, and then fanatical practice got me into the space where I bought that I could do it. For people, nobody has to believe any of this is real. That's the beautiful thing is you don't have to buy it. Because if it's not the flavor you like, then you get to choose other flavors, but for me, in the Energy Engineering Labs, the room is hooked up to a random events generator. I'm being recorded. The plants I'm

interacting with are hooked up to galvanic skin response machines, and I'm being observed by two researchers. So, we had a lot of different measurements in place, and I got enough proof for myself out of those studies that made me believe I wasn't crazy. That's all I needed.

Dave:

You were able to influence the randomness of the numbers through your will.

Lisa:

Oh yeah, and the plants and their sign wave signatures on the computers. Some of those little charts are in the Neurosculpting book.

Dave:

The plant research is something a lot of people don't know about, but the guy who invented EEG started out by measuring plants and noticing how they responded to the environment around them. In fact, he invented the lie detector. It's a fascinating history going back, what? To the '40s if I remember?

Lisa:

Yeah. Man, plants don't lie. They're just like right there with you, responding to the room. Yeah, it was wild work, but your question, how did I get to the vagus nerve? It was the episode I had in a doctor's office that just rocked me. I'm in a gynecological exam. Worst possible place to blackout, right? All I can see is the tops of my knees and my gynecologist, who at the time was a much older man with this little bow tie. I can like see his eyes peeking over the tops of my knees and he's checking in on me, and I'm not feeling good. I tell him I'm going to faint. I know what fainting feels like. I've been fainting my whole life. I wake up after I faint to him with this needle of atropine. His hands are shaking.

It's got a loaded needle of atropine. It's poised at my heart, and he's just gone white. I open my eyes. I can't talk, I can't speak, I can't hold my bowels, I can't hold my urine. I'm just lying there drenched like I always wake up, and he says, you flatlined. You had a grand mal tonic seizure and you flatlined, and we couldn't get you breathing, we couldn't get your heart going. Has this happened before? I'm thinking, well, this has been happening since I was 15. I always wake up like this, at least three, four times a year, I'm waking up in my own wastes.

Dave:

Oh my goodness, you had some serious seizures. Wow.

Lisa:

Yeah. Oh, they sent me to the emergency room. I get the EEGs, EKGs. I'm not epileptic. My cortical function's fine. He says, you're vasovagal extreme syncope. I'm like, "Well, I don't understand any of those words." So, I left with a diagnosis, which caused me to go find out what that meant. That's what pushed me towards neuroscience. What I got from that moment was, he says this is a stress disorder. How could I be stressed? I've been meditating since I was 12. That's when the first light bulb went off. User error. You're meditating in such maladaptive ways. You are exacerbating dissociation. That's when I went, oh, crap. Meditation can be dangerous for people who have maladaptive vagal tone.

Dave:

Yep.

Lisa:

Oh, okay. So, I go down this rabbit hole of neurophysiology, because I have to, because my seizures are getting worse.

Dave:

The whole not dying thing is a big motivator.

Lisa:

It's a big motivator. Actually, it wasn't even the big ... it was my daughter that finally pushed me, because the last few seizures I had just traumatized the hell out of her. I mean, three years old, she watched me flatline in a food court and I woke up having no idea. I woke up to paramedics, not knowing where she was. Fortunately, a gentlemen in the food court was watching her. She saw that. Then shortly after that, was my last seizure, which was, I was not able to breathe on my own again. Normally, you recalibrate, your heart kicks in, you're breathing. But this last seizure I had, I was watching my body going, I am not going back to that broken body. Coming back from those seizures was so painful and so embarrassing and humiliating. Why would I want more of these?

I could hear myself going, it's so easy not to breathe. My boyfriend, who's now my husband, but he was there at the time, and he's pushing on my chest is going, "You have to breathe. You have to breathe." That's when I thought, oh, wait, wait, I got a kid upstairs in a crib. Oh, this can never happen again because I'm done if it does. That was me now gathering all of the neuro stuff I had been learning and saying, I have to come up with a hack into this fraction of a second window. I got a window, right? There's a seizure halo from stress and maladaptive vagal tone and then there's a seizure. Well, there's a gap in space and time between those two things and it might be a fraction a second, but that is a response pattern that I've gotten really good at.

Neuroplasticity says I can change those things. It doesn't tell me how exactly, but I'm going to figure it out. I had all of this meditation that I was not using for my well-being, and then all of the science, and I just backwards engineered. I took a lot of elements from hypnosis. Then I put in place a lot of really regimented steps that would tease parts of my brain into compliance so that I could get to my vagal tone, and then I could get to what Bessel van der Kolk says, your body keeps the score. I could get to where my body was holding those rigid patterns. I had no idea if this would work, but I practiced for eight months with this imaginary script and this process, and then a seizure halo hit. Before I knew it, the process I had been practicing for like eight months kicked in, and I interrupted the seizure and had full blown tremors for like eight hours.

My nervous system was just releasing everything that I had had been holding, including me narrating memories I didn't even know I had. There was clearly trauma underneath the dissociation that I never even knew was there. I knew when I was done shaking for like that whole day, I was never going to have another one again. Then I sort of consecrated to whatever force in the universe. I'm like, okay, you just fixed this. You just gave me a second chance. Now I have to go quit working at my consulting job, because I was a consultant for Accenture. I'm like, okay, I'm leaving, I'm in service to this. I don't know what that looks like. I don't know how to be an entrepreneur. I don't know how to talk about this. I don't know how to raise a daughter with no money right now, but if I walk away from the promise I just made myself, then I'm pretty stupid.

Dave:

That's pretty intense.

Lisa:

It was intense.

Dave:

People with vagal dysfunction probably don't know too much about how it feels. I have very high vagal tone, and I've passed out always in medical offices doing crazy procedures, but I've woken up with people holding onto my tongue so I wouldn't swallow it, which isn't very fun. I actually talked with Stephen Porges, like, what's going on here? It's a weird feeling, but it's funny. Football players and taller muscular people tend to be the fainters. I can just imagine, I'm like, oh, you're laying back on a table. Gee, is that going to affect your blood pressure and all that? I've talked with Nick Foles about having low blood pressure, which I've had for my entire life, which goes along with that, and is exacerbated by toxic mold exposure. I'm really resonating with what you're saying. I wasn't quite there, but there's enough of a flavor there. I'm like, oh man, that really sucks, because when you wake up ...

Lisa:

Did you ever get that stomach dropping out kind of feeling.

Dave:

Oh yeah, I've literally looked at someone and said, "I'm going to be unconscious in eight seconds."

Lisa:

Yes.

Dave:

I know, I can feel it happening, right where it's going to happen. I haven't figured out how to interrupt that. Sometimes I can, if I like tense all the muscles, get the blood pressure back down ...

Lisa:

Yeah, cramp down.

Dave:

Yeah, like a fighter pilot. But I actually don't have much going on in that space anymore. It's highly unusual to have any kind of issue, but it's come from fixing probably more my biology than my neurology. Just regulating my blood pressure better. Everyone's going, "I want to try to lower mine." I'm like, "I don't know. You don't want it too low. Trust me on that."

Lisa:

Yeah.

Dave:

Okay. I want to go back to something you said that was really true, but almost not known. You said meditation can be dangerous. This is something that, even the Buddhist teach in their old writings. I talked about that with the monks in Nepal when I went there to learn meditation, where they're seeing that for some people, nope, don't do this, and the wrong path of meditation, the fast path, which of



course is the one I would be most attracted to like, well, yeah, you can be enlightened in one lifetime if you don't go nuts along the way. Talk to me about the danger of meditation and what you were doing that was wrong.

Lisa:

Yeah. It goes to physiology first. This is the spectrum we live in as humans between our complete shutdown-freeze stress response, and our complete rage arousal stress response and everything in between. Homeostasis, somewhere in the middle, different for every person. Most meditation forms generally are positioned, at least the ones I was learning, positioned to dial you back from arousal, which is dialing you from over here towards homeostasis. Dialing down the heart rate, calming your mind, letting things go. That's fantastic. If your predominant stress response is arousal, but for those of us who are vaguely predisposed, and we go in the freeze direction, we already have depressed heart rate. We already are somewhat dissociated from the ability to regulate our body.

So, to let go of anything, we've already probably let it go. We've let it go so far. We don't know how to find our way back. But the dissociation part of freeze, which is a physiological result in the brain, the cognitive dissociation is not helped by relaxation meditation. What people in freeze need, they need to wake up the body. They need an approach towards arousal to come to homeostasis.

Dave:

How many people, just on average, or what percentage of people would you estimate, there may not be studies, but just from your experience, would you estimate are in that category versus the, I want to go kill everyone category?

Lisa:

Ever since I started the institute, they've come out of the woodwork, so for me, it's a huge part of my clientele. I think I'm biased. For me, I would say it's 50-50, but I don't know that to be true. What I can say, it's very interesting because the institute is an intern site for some of the bigger universities that graduate psychotherapists and contemplative psychotherapists. They come here ...

Dave:

Which institute? Your ...

Lisa:

Naropa.

Dave:

Okay. Yeah.

Lisa:

So, we'll take Naropa interns and they'll start a therapy practice here, and we'll then give them neurosculpting training. What I found consistently is that, when they have anxiety people, they're fine, but when they have the shutdown clients, they're coming to our governing LPC, and they're like, how do we deal with shutdown? That's when we're like, you got to talk about the vagus nerve, you got to get them moving their body, you got to get them shaking. You have to get them feeling their body and not dissociating. For those people, we don't give them relaxation meditations. We have them lean against a

wall and feel their body with their eyes closed, or we have them do TRE, trauma release exercises, neurogenic tremoring, or we have them do vagal toning for five minutes. We get them ...

Dave:

What do you like just putting your lips together and sounding a horse?

Lisa:

Yes. Yeah, because all of this innervates vagus nerve in the brainstem. We get them to understand that it's not a one size fits all. When you hear the word meditation, it's not one size fits all. There's all different kinds and you kind of have to know what works for your body.

Dave:

So true. There are some forms of meditation where I don't do them, because I just get to relax. I feel like crap for hours afterwards because I go really deep. Then again, I used to be a pretty angry person. My file from middle school, the number of fights I was in, I never threw a first punch, but I always threw the last one. I could get pretty activated there, the fight part of fight or flight, but then I'm like, I don't really want to do that anymore. I got really good at the freeze part, to the point. I'm sharing this with you, and also for your comments, but also just with listeners. You can go that far from the quick trigger, all the way to the point, where I've seen people trained by Ida Rolf, and the Rolfing is pretty intense.

They stick their fingers. I lay down, I go, okay, I'll relax now, and then I wake up an hour later and the guy's like, "I've never been able to Rolf anyone this much in my entire years of life. You didn't even say a thing." I'm like, "I don't even know where I was. I just kind of took a nap." But I turned on meditation abilities to do that. I'm not sure that was good.

Lisa:

Yeah, but what's dangerous about being a freeze predisposed person and not really knowing anything about it, is that it's extremely socially compliance, right? It's not a disruptor. You're out in the social world and you have rage and arousal. You disrupt and people are like, "Oh, you're stressed. You better get help," but you're a freezer and you've got a flat effect. You remain calm, you don't get loud or boisterous and it's socially acceptable. In fact, it's even preferred. For me, when I would go into freeze response, if it didn't go to seizure, but I would just be in frozen response, it was misconstrued as quiet, respectful, compliance, brave. It was all maladaptive. Freezers don't even know they have an issue, because the outside world is not recognizing it or alerting to it.

I remember walking home when I was in sixth grade, and my friend was hiding in the bushes with a pen, and he jumped out behind me, went behind me and put the pen right here as a joke, and I just stood there total flat expression. He walked around and he started shaking me. He said, "Don't you ever do that again?" I said, "Do what?" He said, "Just stand there." I didn't know how not to just stand there. freeze is very tricky, and thank God for Stephen Porges.

Dave:

I want to get in now into neurosculpting, what you created, how it works, who ought to use it, because it's a new idea. There aren't that many new ideas floating around like this, so talk me through what it is.

Lisa:

Okay. It's a five step scaffolding for a meditation slash mental journey experience, so like hypnosis, has an induction, and then a body with rules that the ...

Dave:

Hold on a second here, I feel like you just hypnotized me with that first description of it. I was, in my mind, working to unpack all those words and it did something weird to my mind. You put a slash in there. Are you in NLPing me right now?

Lisa:

I'm not.

Dave:

Lisa ...

Lisa:

Okay, maybe.

Dave:

Give me something that I can unpack, because I'm a pretty smart guy. I don't know what you just said.

Lisa:

Okay. There's an induction that's necessary in hypnosis that gets you safe, comfortable, and building trust. That's missing in most meditation forms I've ever studied. That induction is actually vagal toning. It's calming the limbic system and it is shunting blood oxygen and glucose to the front of the brain for prefrontal awareness. A good induction, that's going to get your nervous system receiving and compliant and willing to change is going to be something that first down-regulates the midbrain, so we're not in extreme arousal or extreme freeze, right? Then something that shunts activity resources to the front of the brain so what we have is dorsal medial activation, which is what we say is witness mode.

We can otherwise say creativity, empathy. We can say focused awareness, whatever you want to say. But when we tip the scales from this turning down, midbrain turning down and prefrontal turning up, we're induced. I've never had an induction in meditation. Here I come with a maladaptive nervous system to a meditation, and they're like, "Okay, just let it go." Well, my mid-brain is so fired up or my brainstem is so torqued, I can't connect. With neurosculpting, the first two steps are to create that induced brain state through words, through guidance, that you can then do on your own. There is a checklist that quiets the midbrain. Super simple.

Dave:

Can you walk me through a couple of those? I want to quiet my midbrain right now.

Lisa:

Am I dry? Is my bladder empty? If not, do I know where the bathroom is? Is my temperature regulated? Can I swallow? Do I have clean water nearby to drink? Food in the fridge, a bed to sleep in. any semblance of my basic needs are met right now, I'm comfortable, that's going to quiet your midbrain.

Dave:

So, it's creating safety basically.

Lisa:

Yes, creating safety, but safety is not a word everybody can have, so I like to say creating comfort and focusing on what is comfortable about your environment. When this starts to dial down, which it will do once you marinate in your own comfort and safety, there's a beautiful inverse relationship that we're exploring in neuroscience that says limbic downregulation yields blood oxygen and glucose available to the prefrontal cortex.

Dave:

For ADD, this is kind of important, because ADD people have less oxygen and less blood flow in the prefrontal cortex.

Lisa:

Yeah. We're doing this with the seesaw, but we can actually slam into the prefrontal cortex with its own checklist. The things that get the prefrontal cortex really activated, novelty, humor, wander creativity. In neurosculpting, if I were guiding you through an induction, I would ask you for three to five minutes to just notice your comfortable cushion, soft texture of your shirt, your breath is breathing itself, your environment is as you like it, and then I would slam you into your prefrontal cortex. It's a little more graceful than that, but I would ask you to imagine the most ridiculous things. What would orange taste like? What if you could bring your awareness to one hair on your head? What's the funniest joke you remember?

I would be just giving your prefrontal cortex, bizarre novel candy. It's meaningless, but now we've induced. When we're prefrontal oriented, we're limbically regulated more than we were before, and now we're in witness mode safely, but we don't want to lose connection to the body. The next phase, step three, is what is the pattern you want to investigate, edit, release, sculpt, whatever, story? Your belief. With neurosculpting, when we're telling the story, we don't want you to slip into a reliving. You can slip into a reliving with like talk therapy. We don't want to retraumatize by asking you to think of your old belief or your old story that needs editing. What we do in neurosculpting is we create bilateral stimulation so that you can't slip into a lateralized default thought pattern.

Dave:

This EMDR kind of back and forth kind of thing?

Lisa:

Yes, but we do it linguistically. As I'm guiding you, now that you're induced, and I might say, what would it be like to bring to mind that time that you got stage fright for the first time? I might spell that time you got stage F-R-I-G-H-T, I would spell. Left hemisphere Wernicke's area in the back is going ding, ding, ding. I know what that means. I've left lateralized activated you. Then I'm going to say, and if that time in your mind could have a texture, a color, a temperature, what would that be? Now, we've got right-brain symbolic associations happening. I'm helping you toggle across the midline, keeping you safe without a reliving. So, you're bringing up a pattern. Now we have to go to the body. Step four. What's your body doing right now? Right now? Is it contracting? Do you have tingles? Are you numb? What is happening in your body? We do a body scan.

Now we're seeing where's the body associating with this thought we just brought up, but we brought it up safe enough to get a mild but not extreme reaction. Then we take that body experience, in step four, and we breathe through it or we shake it out, or we use creative mind to imagine doing something with it. Whenever the body has shifted, either felt shift or an imagined shift, we have people anchor into that with a hand gesture, a nondominant hand, hand gesture. Something so somatic so that we are now linking and sinking. This is like a post-hypnotic trigger. Your hand gesture, at the moment, you renegotiated this old stage fright memory, is now going to be linked to the fact that you have renegotiated it.

Then step five is we give a linguistic trigger. You get to name your experience. You spell out a word in your mind so that, after the meditation, which is extremely mind active, it's not no thought, it's lots of thought. But at the end, you've got a trigger word, you've got a trigger hand gesture, and you've laid down the content in a ripe, receptive, nervous system because you followed an induction, and that is phase one. That's the five steps.

Dave:

Wow.

Lisa:

Then what you do is you repeat it, so that after a few repetitions from neuroplasticity, your hand gesture, alone, can cause a cascade of nervous system regulation, not just around that pattern, but any tangential pattern that might be ready to respond. Because as we know, dendrites all grow towards each other over time. You can unravel tangential stories with a hand gesture and a word if you load the ... it's programming. You've got to load the content. You got to get the brain compliant enough to do that. And then you got to convince yourself that it's real, which is what all of the neuroplastic components are doing, and then it's just a matter of repetition.

Dave:

Now, you have the neuro practice app, and does that guide you through these things?

Lisa:

Neuro practice app will give you a library of guided meditations. It's not an instructional platform, it's an experiential platform. For anyone who wants to just have a library of these interactive meditations that bring you through journeys of neuro support, you would want that app because you get to press play. I do all the work. I'm guiding you through the five steps. You just listen and you write your words and you have your hand gestures and you favorite your different ones, and you create a user library for yourself. If you want to learn how to do this yourself with strategy and you come to the NeuroSculpting Institute and you take some classes and we teach you.

Dave:

Is that something that you're doing remotely now, given all this COVID stuff?

Lisa:

Yes.

Dave:

So, you can basically do it over Zoom.

Lisa:

Yeah, it always remote, hybrid, in-person remote, but now it's exclusively remote for the time being.

Dave:

Well, it's a fascinating approach to meditation, and it makes so much sense just from a neuroscience perspective, activating different parts of the brain and all of that. I'm definitely intrigued. What happens if someone has normal vagal behaviors? Just an average brain or an average nervous system that's maybe healthier, if they do this kind of neurosculpting work, what benefits or risks are there?

Lisa:

I haven't seen many risks. The benefits are you still get to hack into your nervous system and you get to file down the sharp edges of any thought that might have triggered you into arousal at any point in time, or you can create brand new thoughts. Neuroplasticity doesn't care if it's an experience you've never had or an experience you've had. It only cares that you're programming it with buy-in, and it's going to store that in your mind as a pattern. You can create, let's say you want more grace in your life. You don't know what grace feels like, you've never experienced it, but you can evoke in step three, an association with grace, what you think it might be. You could chew on it. What color is it? What texture is it? What temperature is it? What words describe it? You can ask your nervous system to give you its associations.

Then you can take those associations and steep in those, and then find where your body is starting to respond as you're steeping in your made up version of grace and you can anchor in with a hand gesture to that experience, and now you're crafting and cultivating and building an experience of grace in a very mechanical, logical way. Ultimately, you can start tapping into that experience, because you've loaded it into the nervous system. It doesn't have to be all for trauma. You can cultivate whatever it is you want.

Dave:

Neuroplasticity is one of those things that has been at the core of my evolution as a human, just realizing you could do this twenty-something years ago and working on it. There's all kinds of things like exercise increases BDNF, brain derived ...

Lisa:

Neurotrophic factor.

Dave:

Thank you. I was like, the N just left me there, and there's nerve growth factor, NGF, and things like that. Exercise does it. I make a supplement that increases it about four times more than exercise. I've talked with the Life Cykel Lions Manes guys who have an Australian lion's mane that does it. There's probably 15 other compounds we know of, including weird stuff that has to go into your skin like dihexa and all kinds of things. I feel like we have a rich tool set to turn on neuroplasticity. Is it advisable to do some or all of that, and then do neurosculpting, so your brain is like Play-Doh.

Lisa:

Sure. I would love to experiment with all of that. I think if you have all those tools available and you add neurosculpting, I want to hear how it unfolds for you. Absolutely. I mean, we are creating our world all the time, and it's usually unintentionally, and by default programming. I feel like the more you can take agency, why not? Why not?

Dave:

I like your attitude there. A lot of people's eyes get really big when I say stuff like that, but it's like, why not? If you're going to do something that's going to improve your brain, you might as well do it. Even like the Halo Neuro thing is out there now with a little bit of current, and the only reason I can still at least mostly keep up with my 11 year old at ping-pong is because funny enough, I run an electrical current over my brain and the ball slows down when I do that, and I improve more quickly, like a young person versus like someone who's 48. It's pretty incredible.

Lisa:

How very Matrix of you. That's sounds awesome.

Dave:

It's super Matrix. The ball slows down and then zeros and ones pop out of his eyes. You've done some other stuff though, speaking of, pretty crazy that I want to talk with you about. Spinal cord injury. I know you do work for free for people with spinal cord injury. That is some serious neuro-plasticity, because the neurons we're talking about aren't even in the brain. You're talking about the spinal cord itself. What have you been able to do, and why do you think it's doing it?

Lisa:

I've been able to get paraplegics and quadriplegics to move again, which I did not start out expecting that. But it stemmed from my first case, which was a quad. My dear, dear friend, Heather, I met her. She came to me for stress, C3, partial sever. So, everything below C3 in the cervical spine was fairly annihilated, not Christopher Reeve's level, because she was partial, but she didn't have arms, hands and lower trunk volitional movement, but she could breathe on her own. So, she had come to me 11 years post-accident. First stress and over those years with every neurological intervention possible. She did have arm movement. She came to me with paralyzed hands, paralyzed lower body. As she's telling me her story, she had been thrown from a horse. As she's saying this, I said, "Heather, what was the last thing you remember from being on the horse?"

She said, "Last thing I remember was holding on for dear life." As she said it, I made a fist with both hands as though I were holding reins, and I looked at her hands and that was the position she was in, and I went, "Oh my God. Yes, you're paralyzed, but there's also an unresolved pattern." Then my brain went to all of the work with V. S. Ramachandran and phantom limb, and all this stuff that I had read that had just wanted to use at some point. I said, "Heather, can we try something?" I put her into this 20 minute meditation. This was our seventh session that I have on video, because she was pro bono and I was doing a case study, so my camera was set up. I had her go in step three of neurosculpting back to the story of falling off the horse.

I had her choose to remember opening her your hands to let go of the reins. Then, because of the way neuroplasticity works, if you don't use five individuated digits on your hand consistently and you use them synched, like if you bound index and middle finger together for a month, those two maps in your motor cortex would fuse so they would become one map. So, you would use them in sync, even if you Unbound them. This is how neurons adapt and they connect. With Heather, 11 years of having a

paw basically in her motor map, five fingers fused into one, in her motor map. I suspected, what if I had her draw all her finger maps back in her motor cortex. So, I'm taking her on this fantastical journey, draw your index finger and name it, give it a color, give it a texture, define it, middle finger, go through all the fingers.

Have her send that information through her thalamus, down her neck, into her hands, have her touching her hands to the best of her capacity, knocking her hands together in the meditation. She comes out of the meditation and she moves her thumbs three times. She just moves them, and her mind's blown. My mind is blown. Then I have a series of we just dive in, and so I have a whole playlist of episodes with her, where we continued to work, got her to use index finger and thumb, got her the pinch motion, got her to pick up little stones, got her to twist on enough bottle caps. Then we did some phantom limb experiment, mirror box treatment with her, where you give up a surrogate hand and you trick her visual system into thinking it's her hand. While I'm touching the surrogate hand, I'm touching her own hand hidden, so she's cross-wiring somatic experience, visual perception. And in 10 minutes, she's moving her thumb by thinking of the surrogate hand's thumb.

Dave:

Incredible.

Lisa:

It's all on video. I'm going, I didn't even know this stuff could happen. I'm just willing to experiment because she is too, but the fascinating thing is that, after 11 years of not using fingers, and she was painting, she would have a metal hand that clamped on a paint brush and she would sort of paint little abstract pictures of people. When I went to her house, none of the people had fingers, not one person had fingers. When I pointed to the picture, I said, "Heather, what's missing from the anatomy?" She would say nothing. Then I would have to ask her, "Do you see fingers?" And she would say, "Oh my God, they don't have fingers." When your internal landscape shifts, your visual system will edit out anything that doesn't match. A quadriplegic may very well always be a quadriplegic, or they may very well have edited out their capacity to recognize motion and movement simply because they were frozen in it for long enough. Who knows? She's not the only ... I've got a paraplegic to move his leg.

Dave:

That's incredible. There's some new stuff happening in neuroscience. You've also worked on another group that's really interesting. Lieutenant Colonel Dave Grossman was on a while back. He wrote a book called On Combat and another one called On Killing, and it's about the neurological response of first responders, whether they're in combat or firefighters, or whatever else. It was a profound episode, actually, one of my favorites because he talks ... a lot of it is like, could we stop getting kids to kill people on video games, because really it's bad for their brains. We went all over the place in the episode. You've been doing some work though with FBI and first responders and all that. How does neurosculpting and the neuro practice step, how does it apply in that world? It seems pretty different from paraplegics and people who pass out.

Lisa:

Very different, but they were actually my first audience. I was called to work with them from somewhere deep inside of my crazy self. I was like, I need to go get officers a capacity to push the pause button so they're no longer trigger happy. This was really my mission in that 13 years ago, is when I started working with them. They have a lot of biases that are industry supported that are ... and one in



three officers experiences PTSD without ever having experienced a critical incident. So, you don't have to ever have been in a shooting to start to harden your humanity around empathy and compassion, and that becomes a pattern. I saw that in my own family, anyone in my family who had been an officer was not someone I wanted to spend time with. I thought, why? Why did that happen?

For me, I go in and I help officers recognize their neurophysiological predisposition to reactivity versus responsive thought. I get them to understand limbic bias. I get them to understand limbic resonance, and I get them practices to start first, being able to handle their own stress so that they don't dehumanize. Then second, we start talking about the kind of limbic resonance an officer brings to the scene, that then can limbically trigger other people without even ever having to say a word. We get them to start becoming very socially cognitively aware of what they do to people, just by wearing a badge and a uniform.

It's been a fascinating journey with them. I have to say that there's something profoundly rewarding when you see an officer crack open and have realizations, and then come up to you afterwards and say, "If I had these tools a long time ago, I'd still have a marriage, I'd still have a relationship with my kids, I wouldn't be in court on Tuesday for use of excessive force, or I wouldn't be having to save my friend from a bottle and a loaded gun because he's an officer too." They have their finger on loaded triggers, man.

Dave:

It's a tough life. We have a family friend who's a cop, and yeah, you walk around and do all day with people, either hating or fearing you for a few years. It's kind of rough on your nervous system.

Lisa:

I don't want anyone with their finger on a trigger who doesn't know how to regulate their own nervous system. That just seems like user manual 101.

Dave:

It's something we haven't known how to teach, as part of the problem, and I think you've opened a new direction for that, which is super cool. I want to finish up our interview with some real actionable advice. If someone came to you tomorrow and said, "Look, I want three recommendations to retrain my brain." I'm guessing you're going to say neurosculpting is one of them, but is it? What are the first three things you'd recommend someone do?

Lisa:

I would say let's go way pragmatic, free and easy, because that's how it's going to get done. Vagal toning, shaking. Okay, shake every day, vigorously, wildly.

Dave:

For how long?

Lisa:

If you're doing a real vigorous shake, 30 seconds is a really good amount of time. If you want to do Osho style shaking, you can go for 45 minutes and have a lot of regulation.

Dave:

I'm a huge fan of whole body vibration. I've probably made it popular these days. I put it on the market almost 10 years ago. It existed long before that, but it was less known than it is now. Does it work if you're on something that's shaking you instead of you having to do the shaking?

Lisa:

I would go for it too. Shaking every single day, multiple times a day, especially if you want to start neuroplastically in training, you shake immediately following an arousal moment or a shutdown moment, and now you start retraining your nervous system, kind of like the way you would train a dog to recognize he shouldn't be on the floor. You have to get them in the moment.

Dave:

Is a smaller amount of vibration going to work? We had a Dr. David Rabin, who does Apollo Neuro like a little device that shakes and has very interesting vagal tone responses. Is that same kind of network that you're dealing with?

Lisa:

Yeah. that's more vagal ... Yeah, that will work. For me, I need more vigorous.

Dave:

Yeah. I kind of like a whole body shake for myself, where I'll stand on a platform for a minute or two.

Lisa:

Yeah. I would say shaking is my go-to practice, and then I would say a vagal toning circuit every day. That's like a couple minutes of gargling in the morning, ending my shower, either on cold or a cold water splash on my face, and then humming and singing throughout the day, and then the lip exercises blowing those raspberries through your lips and really softening the jaw lips and tongue, and I'm doing that throughout the day.

Dave:

So, you just walk around on the subway going [inaudible 00:57:26].

Lisa:

Yeah. I'll shake in the middle of a conversation. If something's getting agitated in me and we're talking, I'll do a little twitch. I can feel it. I would say simple, free, easy, so that you start taking agency immediately. Then you can go to the thought level. Thought level is not accessible for everybody, and it's a little bit more labor intensive. Then you do some neurosculpting, 15 minutes, and you press play on something prerecorded. Then of course, you have to look at what you're eating and how you're sleeping, and you make those micro changes so they become manageable, and then you can build from there. That's what I would say for my pragmatic approach.

Dave:

Well, that's a pretty darn pragmatic list and it wasn't anything terribly expensive other than breathing and moving and cold water, so all right. Really, I just want to say, thanks, Lisa, for being a creative thinker in a field that has all kinds of, really some dogma, both around meditation and even on the

neuroscience side. So, you've just kind of in there and said, no, I'll just do it a different way. Maybe the lightning did give you a super power.

Lisa:

Maybe it did.

Dave:

If you guys liked today's episode, go to [neurosculpting.com](http://neurosculpting.com), where you can learn more about this. The app we talked about is called NeuroPraxis, P-R-A-X-I-S, and you can install it on your phone. It's I think about a dollar a day. What I think you might find here is that if you pass out when you meditate, maybe you should change your meditation. No matter what, you definitely, definitely will have a completely bad vagal tone experience if you do not pick up a copy of Fast This Way, my brand new book. In order to save your vagal tone, be a good human being, and possibly even save the universe, now's the time, [fastthisway.com](http://fastthisway.com). Have an awesome day.