Introduction to Dr. Neil Nathan

Greetings everyone And welcome again to another edition of DrTalks We are doing the Healing Lyme Summit and is my great, great pleasure to introduce you today.

A good friend of mine and colleague, Dr. Neil Nathan. Neil and I have known each other for a very long time, and Neil is one of the few doctors that I chose to work with me during the doctors trainings that I do yearly, where Neil would discuss muscle toxicity, vagal dysfunction, and also the highly sensitive patient.

And today the topic of the talk is going to be vagal dysfunction and how that relates to those who suffer from chronic Lyme and many chronic illnesses.

So Dr. Neil Nathan has been practicing medicine for the last 50 years. Neil, honestly, I don't know how you've managed to, go that long for 50 years and still stay sane and have a smile on your face, but excellent.

and is board certified in family practice and pain management. He's a founding member of the diplomat of the American Board of Integrative Holistic Medicine and founding diplomat of ISI.

So, Neil please tell us a little bit about yourself and, any books you've written and how, kind of how your career has evolved to get to the point that you're dealing with mold and vagal dysfunction and these these sensitive patients.

How much time do we have, Richard? so I love the old Bill Cosby line I started as a child, and then we proceed from there. so just to jump in, I've always been interested in my practice in medicine and helping those people who my colleagues couldn't.

I just like problem solving. And so even from the early stages of my medical training, I gravitated to and had patients referred to me who were not fitting into the usual medical models.

And as you know, Rich, fairly rapidly over time, that became our lyme patients who didn't fit into the medical model. Our colleagues weren't looking at Lyme and not taking it seriously.

And then it evolved into mold toxicity, and then it evolved into helping patients who became unusually sensitive to everything. So my interest was, how do I help those patients?

Not how do I give them a benzodiazepine or SSRI? But but how do I figure out what's triggering this so that I can figure out how to how to help them? So it's been a lifelong fascinating and wonderful journey to try to help those folks.

And I think that's what we'll talk about today. Right. So today the topic of our talk is going to be vagal dysfunction and the vagus nerve. And I was wondering if you could start off and tell people what exactly is the vagus nerve.

Why is it important. Why do people need to know about it? with Lyme and mold and chronic disease in general? Okay. So the vagus nerve when we talk about it is simply the 10th cranial nerve.

It's a nerve that originates in the brain. It's the longest cranial nerve in the body. It comes down through the body to the heart, to the lungs and all the way through the intestinal tract almost to the end.

So it innervates a lot. But when we talk about the vagus nerve, we're really talking about a vagal nerve system. It's kind of a shorthand so that we're talking about not just the vagus nerve, but the cranial nerves that connect to the vagus nerve, which are many others.

The glossopharyngeal nerve, which goes through the throat swallowing. We have the sternocleidomastoid, the nerve, the 11th nerve goes to the muscles of the neck and shoulders.

And then we have the muscles that supply the face, so that there's a direct and important connection between the face and the vagus nerve.

What the Vagus Nerve Does

Now, all of this may sound very technical, but for listeners out there, this is a critical importance in all illness because when we get sick, basically our bodies are trying to protect us.

And that's what the vagus nerve does in conjunction with another brain system called the limbic system. And it tries to protect us by scrutinizing the stimuli that we're responding to light, sound, smell, touch, taste.

It's scrutinizing those stimuli for safety. And if they don't think we're safe, they're going to shut us down and will profoundly affect our illness. So almost everyone who has an illness doesn't matter what kind has some involvement of those systems, because our nervous system is looking at this from the perspective of, oh, I'm not sure you're safe.

I'd better be very vigilant about these stimuli so that I protect you. So that's the basis of it. Great. And how exactly does it happen? I mean, you were talking about these cues for safety and of course, living in California with the wildfires.

When you and I have talked this may have actually been a big trigger for people, right, with vagal dysfunction, limbic dysfunction, just from all of the the cues that we're not safe being here.

So what exactly how does it happen and what exactly are the symptoms people should look for for vagal dysfunction and specifically with like Pots, postural orthostatic tachycardia syndrome dysfunction, dysautonomia Tell people a little bit about the signs and symptoms they should be looking for if they have this okay.

So two important branches of that question. So first of all, to get the attention of our listeners, let's talk about the symptoms you can have from it.

The limbic system for example, is the part of the brain that monitors and controls two main things emotion and sensitivity. So as someone's illness progresses, if someone finds themself so surprisingly sensitive to light, sound, touch, especially chemicals nowadays EMF that's limbic.

If they have any emotional component which is above and beyond what they had before or they never had it before, someone who suddenly finds themselves anxious, having panic attacks, depressed, OCD, or they had an underlying, psychological component and now it's way worse.

That's limbic. So in anyone who has those components, that's something to look at. So keep in mind that our patients with Lyme, especially Bartonella and babesia, those medical conditions, those infections trigger, to a certain extent some of those symptoms.

They affect patients and make them anxious, depressed. Bartonella particularly causes hopelessness and despair, as one of its actually symptoms that we can look at, literally triggered by Bartonella.

So the limbic system is that piece. The vagal nerve system involves, first of all, the vagus nerve controls intestinal motility. So almost any GI symptom that you have.

But bloating, gas distension, diarrhea, constipation, abdominal pain, cramping that is often has a has a vagal component. You mentioned POTS Many of our patients develop this orthostatic hypotension where, as they stand up, from a sitting position or get up from a lying position, they get lightheaded and dizzy and their pulse goes up and they they're dizzy beyond anything that they should be.

So POTS is triggered and controlled by the vagal nerve, which controls the whole autonomic nervous system. So from a symptomatic point of view, most of our patients have some of this component to them.

And it often goes unrecognized, which is unfortunate because I hope that my main message to you all is this is all treatable. these symptoms can be profoundly helped by a wide variety of methods that we have.

And we'll talk about it today. So this is a treatable part of your illness that'll not only help you feel better, but allow you to heal faster and more completely.

So I'm going to shift gears for a moment. I want to talk very simply about something called the Cell Danger response. There is a beautiful model developed by Dr.

Robert Naviaux called the Cell Danger Response, and it we have learned that the body cannot heal if it's in survival mode. Many of our illnesses put us in survival mode.

So there are three things stress, toxins, and infections that will trigger the so dangerous us and my. The simplified discussion two is simply that if the body goes into soul danger response, which all of our patients have already done, you have Lyme disease.

You've gone into a cell danger response. It is very difficult to heal until the body feels safer. This is not psychological. It's neurological and cellular.

So we have to deal with those systems, right. So let's let's sum up a little bit of where we are right now. So the vagus nerve right. This part of the parasympathetic vagus nerve also sympathetic fight or flight.

A lot of our patients some of them are stuck in fight and flight. Right. But some also have too much vagal tone. Right. So there's an imbalance in the system.

And as you were saying, with the intestines, you know, some of these people with GI symptoms, I mean, I've seen lyme and bart patients with what's called gastroparesis.

They have nausea and vomiting. That just doesn't stop or it takes them 1 to 2 weeks to have a bowel movement. Right. They're just chronically constipated.

And you can give them all the medicines you want and magnesium and, pride and cytokine and all the drugs you want. But until you fix the vagus nerve, right, it's going to be a problem.

Symptoms of Vagal and Limbic Dysfunction

And even the bladder right is controlled by that. So people sometimes will say, I can't urinate properly, right. It doesn't come. But I think all of that, and especially the point you brought up with Pots, what's really important about the differential here with it is that the symptoms overlap what you have with lemon bark, but it doesn't require treatment with antibiotics. Right.

So anyone that says I keep feeling like I'm going to pass out, I do pass out, I get palpitations standing, I get dizzy, I have chronic fatigue and brain fog anxiety.

These are all symptoms, unfortunately, of pots, but they're also symptoms of active infections, right. So you really have to know how to differentiate it.

So how do people go about diagnosing it. What's the best way to think for people to tell the difference between, for example, and an active infection with that and something that has already been treated?

Do you have a sense of that? Because I think that's an important point for people to to understand. I think that's a very difficult question. because these conditions that we're talking about, Lyme and everything in the Lyme world.

But I want to add to that discussion mold toxicity, other environmental toxins. I want to include mast cell activation in this discussion. They all produce very similar symptoms.

Teasing it apart is really difficult. Like which piece of this is a Lyme or Bartonella or mold or mast cell or this nervous system dysfunction very difficult.

So I find that by treating it, I can at least get a piece of that information so that if I treat the vagal system and the, limbic system and someone gets 30% better.

Okay, I've identified the component of their illness that was from that. And that helps me to hone in on what's left. So that helps me to define a little bit more clearly.

What's purpose here? What's Bartonella, what's lyme. Because there are some differences between those conditions that we can hone in on to really get a feel for.

What is my patient primarily wrestling with right now? Right now it is a difficult question. And I brought it up because I think it's something all of us have to deal with.

In fact, it it even gets worse when you include in the list of Lyme, the busier Bart and mold with long Covid, right? Because long Covid is also causing that.

So we usually are finding patients. They may not have one thing wrong with them, right? My example is someone goes into the doctor with 16 nails in the foot and says, I have foot pain, right?

So many of these patients now may have long Covid on top of mold, right on top of the vagal dysfunction with the Lyme, the busy a Bart. So yeah, it's a it's a very tricky it's a very tricky a diagnosis and differential diagnosis.

I think ultimately, you know, the classic symptoms of Lyme with symptoms coming and going, good and bad days. Migratory pain helps with the Lyme that the malarial symptoms, if they're still present with day sweats, night sweats, chills flushing air hunger, cough helps with the BBC and the Bart.

you know, in the recent study we published, the Bart actually caused horrible to sort of name. We didn't know that that the worst vagal dysfunction we were seeing an immune, deficiencies were actually seen in those patients who had bad neuropathy, bad neuroscience issues from Bart, but also bad parts, disorder.

Nahmias. So it's a good differential diagnosis. I think what's important for the listeners is think about Lyme, think about the busier parts, think about mold, think about Marcel.

Because you were saying earlier, if someone gets immediate reaction, right, they're highly sensitive to this. That is a sign that the mast cell may be involved.

Right. Dealing with the vagal dysfunction. Yeah. And I want to make it clear that there's a profound interrelationship between the limbic system, the vagal system and mast cell activation.

And most of our patients, if they are ill long enough, will develop all three. So if you haven't looked for those components of your illness and you're struggling and you're not getting better, be sure you take a really hard look at the possibility of treating limbic, vagal, and mast cell issues, because that will restore some semblance of safety.

That will allow the body to respond way better to the treatments that you would be getting. Right. Which, of course leads us into the next question of how how are you treating positive sort of Nami and what medications or alternative integrative therapies do you like?

What do you find the most effective? Well, specifically for parts, I first of all, quieting the nervous system, which we can talk about in more detail, there are of at least a dozen proven methods of settling down the vagus nerve.

And more specifically, I have found that the use of a couple of medications, particularly Florence, 0.1mg once a day, Mid-Ring ten milligrams, 3 or 4 times a day.

Those have been very helpful in nudging up blood pressure. some of our patients, when I offer them, oh, I don't want anything that will raise my blood pressure.

Well, your blood pressure is 100 over over 60. It's, if we could even raise it by ten points, both systolic and diastolic. That can have a profound benefit in improving blood flow through your body.

And healing requires good blood flow. So I find these medications very helpful. They often don't need to be taken for a very long period of time. 2 or 3 months kind of reboots the system so that it can upgrade at improved efficacy, particularly from a blood flow point of view.

Just for simplicity, if your blood pressure is unusually low and a lot of our patients, as you know, rich have been told by other people, oh so beautiful blood pressure, one, you know, 100 over 60 or 90 over 50 and yeah, from a high blood pressure perspective, that's a good numbers.

But for many of our patients that's not a adequate blood flow. So we need to improve that. It's kind of like if you had a low water pressure in your home and you wanted to take a shower, the water would come out like a trickle.

It's like, well, that's not a good shower. Well, that's not a good blood flow. So this is really important. So the medications help ultimately recognizing that the vagus system is involved can help you treat that more directly.

And you want to get into that now like yeah. So yeah. So why don't you do that later. Why don't you briefly touch upon the integrative methods? Because I've also learned these from you about, frequency micro currents and.

Right the gap to air anti hopper, once you talk a little bit about some of these other techniques that are out there that can also help the patients. So I want to be sure we distinguish limbic dysfunction from vagal dysfunction because oh these are two different parts of the brain.

And although they work together intimately you have to treat both. So on the limbic side we have the any Hopper dinners program dynamic neural retraining system.

We have our Gupta's amygdala retraining and more recently, I'm really high on another one called Primal Trust by Kathleen King. These are all somewhat different systems which teach the body to be safer from the limbic point of view.

And I've often found that within six weeks of starting these programs, patience sensitivity goes down, their anxiety and depression goes down. And so you not only feel better, but equally importantly, maybe more so, it sets the table that the body can now respond to our treatments for what's causing it in the first place.

Cell Danger Response and Chronic Illness

On the vehicle side, there are some exercises developed by a fellow named Stanley Rosenberg in a really good book called Accessing the Healing Power of the Vagus Nerve.

At the end of that book, he lays out some very simple exercises to begin the process of quieting the physical system. The person who wrote the book was a Danish cranial sacral therapist, and so he intended the book for these exercises to be done with good quality.

cranial therapy. And my bias is if you have someone in your area doing osteopathic cranial work, that's a wonderful addition to what we're adding here.

If you have trouble finding someone to do that is a wonderful website called the Osteopathic Cranial Academy that you can find people by state and area code.

So someone in your area is probably doing it. It only requires treatment every three weeks. Frequency specific Microcurrent is a wonderful way to do this.

There are some terrific programs in that. It's a medical device that allows us to, again, quiet the vagus and quiet its effects. Recently, I've been really impressed with what are called vagal nerve stimulators, which are literally devices that that literally reboot the vagus nerve.

a couple of those that I like particularly one is called Apollo Neuro. Another one, is called the gamma core. The Apollo Neuro is quite a bit more affordable.

And the key is for sensitive patients. Please do not follow the instructions that come with the device which is to wear this. Your pet owner is like a wristband that stimulates the vagus.

The company says wear it for 5 to 8 hours. That would throw almost every patient I have under the bus. So if you're going to start with any treatment, and I work particularly with sensitive patients, start with 2 to 3 minutes once a day and then slowly work up to 5 or 10 minutes once or twice a day.

And in this, in an hour, an hour work. My mantra has been for many years if some is good, more is not necessarily better. Yes, I've I've learned this from you before and I think it's very important.

Where can people get in touch with you? Do you have upcoming events you want to tell people about some of the recent, books that you published. So people understand, how to get in touch with you and also read some of the important work that you've published.

Thanks, Rich. my website is simply neilnathanmd.com if you want to, I do a lot of consulting, and all of my consulting work is intended to be with your treating physician.

So we get together on a zoom call, so that we can lay out the complexities of all of the things we're talking about and try to tease it apart so we can figure out what to do in what order.

I often find that many physicians in the lyme world know what to do, but that's especially when patients have gotten sensitive. They're not always realizing that they have to quiet Olympic, vagal, and mast cell pieces first before they dive into the other treatments for mold and Lyme and everything else we're going to do.

So understanding what to do and what order has been for some patients, a difficult and it's and it's one that I think we've learned about. So if you want to consult with me, the email address is simply ask Dr. Nathan, askdrnathan@gmail.com if you are a physician.

I have a mentorship program in which we teach. Physicians have almost 200 physicians in the group with Jill Krista, who is a fabulous naturopathic physician.

We teach both the natural, Catholic and apostolic approaches to mold and Lyme and environmental toxicity and all of these other underlying processes. And we would welcome you to join us.

There's information on my website about how to do that as two books. First, I'm really excited that my newest book, and Rich and I wrote a chapter in that book on online at Bartonella is called, The Sensitive Patient's Healing Guide.

And it's written we have 20 guest authors, and it's literally a who's who in this field talking about their piece of the puzzle and how to understand it.

So it explains to patients why you have become so sensitive and hence how to treat it. Now, this is a new field. For years, patients who have been super sensitive to light and sound and chemicals and EMF.

These are the these are the folks who would take a tiny dose of a homeopathic and have a horrible reaction for days, or a dose of antibiotic or medication that ought to be well tolerated.

Can't be.

Diagnosing POTS and Autonomic Dysfunction

Or these are patients who take supplements of different kinds. Very simple, should be benign. And it just throws them under the bus. So many of our patients have become sensitive as their illness progressed in start.

That way they could start taking normal doses of antibiotics for long. But if they were unlucky enough not to get well soon or quickly over time, as we're talking about these three systems limbic, vagal and missile systems become sensitized.

And then that begins to limit what they can do. And if that has happened to you and you've become sensitive, then learning about how that happened and how to fix it becomes imperative to your treatment, because you can't just keep hammering away when you are no longer able to take the doses.

It's not something you can power through or pull your way through. You have to regroup, settle your systems down, and then you can move forward. So I'm excited about this new book simply called the Sensitive Patients Healing Guide, will be out by the time you listen to this podcast.

And although I've got a bunch of other books there, the book you might be interested in is called Toxic Heal Your Body from Mold Toxicity, Lyme disease, multiple chemical sensitivities, and other environmental, stressors.

The. That book talks in much more detail about mold toxicity, Lyme and co-infections, about how to understand them in the context of the systems that they have involved.

Those systems include these neurological systems like limbic, vagal, a mess, but also includes and this is in complete alignment with Dr. Horowitz's 16 point program.

Understanding that these conditions affect the hormonal balance in the body, they affect the GI tract, they affect the biome. They affect the nervous system.

and so that the other systems have to be looked at together as a unit in order to get well. It's not a simple matter, as we thought when we started with Lyme.

Oh, this is an infection. I'll give you an antibiotic and that will fix you. We learned the hard way that Lyme is a way more complicated condition. So that again, I recommend the book toxic to you if you want to understand it from a different perspective.

And Richard Rich's books are fabulous. So many of you have already looked at those. No, thank you know, and your book has gotten a lot of accolades from my patients.

And by the way, recently, you know, you and I have been going back and forth on, the the mold piece in Lyme for a long time. And recently I had two patients who had done 6 or 7 impulses after the first eight week, nine week protocol.

And we keep telling me that they would get better, but they just weren't moving ahead. And we keep relapsing. And I asked them about, and we had already checked them for vagal dysfunction, which we didn't mention earlier.

And I should just say the way I diagnosed vagal dysfunction easily in my medical practice is just that people do sitting and standing, blood pressures and pulses.

You can do this at home with an electronic, blood pressure monitor. So you just sit for 5 or 10 minutes, hit the button, get a blood pressure pulse, stand and it one minute, three minutes, six minutes, nine minutes.

Look and see if your pulse significantly goes up. 20 or 30 beats. You've got moderate to severe pots. If you feel

dizzy, you feel like you're going to pass out.

It's likely you have moderate to severe pots, but you can also go to a neurologist and get autonomic system testing with a tilt table test. Right. There's lots of sophisticated tests out there.

Let me add some very simple things. And physicians can do that in your office. One simple way is to open your mouth and look in with a with a flashlight or a penlight and have the patient go, The old simple thing we used to do with the tumbling was to say, what's supposed to happen?

Is that your uvula, that little funny little thing that hangs down in the back of your throat should move. it should vibrate like that. But the vagus nerve is affected.

It just doesn't move much. So you'll go, and it's barely moving. Or sometimes it'll even move to one side showing some significant neurological issue. Very simple.

Another simple way. And I know it sounds disgusting, but it's simple is to have a patient gag and I'll demonstrate for you. You simply take a deep breath, put your finger down your throat, gag, and breathe out.

oh. Sounds awful. Now, when I tell that to patients, many of them have problems with chronic nausea and they throw up a lot, they'll say, oh, I can't do that.

I'm going to throw up. I've done this to thousands of patients no one has ever thrown up. In fact, what they're shocked at is they try to do that. They stick their fingers down their throat and nothing happens.

They can't gag. So when they do that, they'll go, what? So as the vagus gets better, you can actually see these very simple things improve. as again, another in addition to, what we're just talking about with checking blood pressure, that's another simple way to look at your vagus nerve.

Right. Great clues, Neil. And I think these are really important because when we put them together for people, right, when they finish these, these talks, you've got, of course, sitting and standing, blood pressure pulse, you can go and get a tilt table test, but your two things you mentioned today about the gag reflex in the uvula.

Very important points. I don't remember if I ever learned those in medical school. And I've learned them from you. And I think these are really important points, where I was going before with the sensitive patients.

And the importance of all this is we had checked our patients who did these daptone pulses, and they had gotten better and were moving. And I asked them, had you had any exposure to mold?

And they both said, no one lived in Florida. You no one lives in Europe in a place where there's a lot of canals and water. We tested them. The mold levels were off the wall.

One of them was actually, I think, the highest I've ever seen in one of the patients. It was one of the highly sensitive that I tried giving her the usual doses of, like the GI detox I used for mold, and she basically said, I can't take it, I'm getting sick.

We switched it over to the Byron White Detox two in like a 16th, a small amount, and just minimally moving the toxins through the detox pathways. And she said, doc, I can't believe it. I feel fabulous.

And in both cases it was the mold interfering with the success the one in Europe I've been treating now for years. He's 99, 100% back to normal, and it was the mold.

But the reason I'm bringing this up is that you and I have been having this going discussion back and forth for years, and I always say to you, in my world that's generally lyme, but busy abad I see mold.

I'm never sure how important I will tell you now. I'm checking every one of these patients for it, apart from the vagal

dysfunction. and I just want to tell people out there, as we learn from our colleagues, this is the beauty about doing these kind of, you know, DrTalks and having colleagues like this, we all learn from each other. Right?

So it's it's a great collaboration. And thank you to you for all the, you know, the contribution you've made in the field.

Treating the Limbic, Vagal, and Mast Cell Systems

I want to get back a little bit, just for a second about this. If if you hadn't said that I would as you as you know. Yes. Let's get back a little bit to the sensitive patient because, you know, all of us. And I want to ask you the differentiation.

It's not an easy question either. These chemically sensitive patients, they are very difficult to treat. There's a mass there immediately sensitive to light, sound food smells.

We know there's a mast cell involvement, but you also discuss the cell danger response and how all of this deals with the vagus nerve. Right. And and with the autonomic nervous system, limbic system.

Can you talk a little bit about, in these kind of cases where, you're trying to help these sensitive patients, right? You're looking at their toxins, you're looking at the detox pathways, you're doing it.

How do you approach these people, the ones that are both highly sensitive, have had a lot of trauma, which is at least a third of my practice when I ask.

They've all had emotional trauma. Do you think that the ones who are not getting better and we've actually ruled out more, do we've done them all that it's still the limbic system or you think it's the cell danger response?

And if so, and I know this is almost an unanswerable question because sermon is not available for extracellular ATP in the US. What are we supposed to do for these patients that are resistant?

They're kind of stuck. They're highly sensitive. Or you think the cell danger response is going on it. Difficult question. I'm just kind of curious to hear what do you think you would do in these cases.

So first of all, there's some things your response is going on for all of them. but I don't think it's a standalone treatment. What some people, some people have heard that sermon is a fabulous treatment for the soul danger response.

That's true. But what they don't realize is you won't respond to sermon until you feel safer, because it's all about safety. For example. And I talked about timing of when you do certain things and when you don't do certain things.

For example, everyone with the cells danger response has mitochondrial dysfunction. Virtually every patient with mold or Lyme has mitochondrial dysfunction.

And so some academic centers will evaluate someone and say, we know your problem. You have mitochondrial dysfunction. And I roll my eyes and go, well, sure you do.

Because you have to. That's not a diagnosis. It's a it's a an obvious component of what's going on. But that is not what's wrong with you. The same thing is true.

People talk about methylation dysfunction. Oh, your problem is methylation dysfunction. Well, every one of our patients methylation dysfunction is an outgrowth of the cell things response.

It's a way the body is trying to protect itself from infection by shutting down certain systems. So if you try to treat methylation dysfunction or mitochondrial dysfunction when someone is sick with Lyme or mold, you're not going anywhere.

You have to first make them safer by treating the infection or the toxin that's making them sick. So it's again, the better you understand the overall issue here, which is you have to deal with what is really making your patients sick, because other things that a lot of physicians are treating now are downstream and and if you do that, you can treat that for several years and go nowhere.

so I hope I'm kind of addressing that. Coming back to the sensitive patient, the trifecta of understanding, and we've been kind of talking about it is limbic vagal mass.

So that's I call that the trifecta. Those three completely interrelated systems are what is making our patients sensitive. And by treating it, we can make them less sensitive.

So that they can take what they need to get well. So from to answer to your very specific question, the starting point, I'm working with sensitive patients isn't to scale back what you're giving them, like teeny amounts.

Yes, that's important and that will come later. But to start by quieting their limbic, vagal and mast cell systems by doing we it started in the earlier part of this discussion.

We talked about limbic retraining, either any hopper Ashok Gupta's program, Kathleen King's program. And we we were talking about vagal rebooting with vagal stimulators, FSM, osteopathic cranial work exercises of different kinds.

combining that is the start for our most sensitive patients. Some of them can't take the mast. They mast cell materials until they've spent 6 to 8 weeks quieting those systems.

But once those systems have begun to quiet, we we then turn to mast cell activation as the next piece. So we really haven't talked about that much so far.

The mast cells are a bridge between the immune system and the nervous system. Most specifically, surprise the vagus nerve as a part of the nervous system and the immune system.

And there are cells which line every tissue of our body, the president, every tissue of our body that become hyper reactive as the body becomes more hyper vigilant to the point that they start to overreact to things like the limbic system does and the vehicle system does to stimuli that otherwise would not be a problem.

Now, a lot of the mast cells particularly line the outer surfaces of their body, where the immune system is exposed to the kinds of threats that we worry about.

Bacterial virus, mold, parasites. So there's a particularly large accumulation of cells in this area. So when they are hyper reactive, anything you eat, when the mast cells are hyper active, the body will react to by releasing hundreds of biochemical mediators into the body, which add an inflammatory component to an already inflamed system.

So the tip off and you you alluded to it earlier, Richard, the tipoff to mast cell activation is any symptom that occurs immediately on eating. And I mean within 20 minutes many people will tell us two bites and I'm having this reaction.

And that reaction can be particularly, sweating, hives, itching, cognitive impairment, fatigue, abdominal symptoms, cramping, tachycardia. These are kind of a manifestation of histamine release, which is one of the main things released by mast cell activation.

So even our sensitive patients, when they tell me that immediately on eating they begin to get symptoms. That's not food allergy, that's cell activation.

And so that needs to be included in your thinking about, well, how do I get well when I've gotten sensitive. And here's the good news. It's a very treatable we have a host of really good well both pharmaceuticals and natural materials that can help us with that.

Right now these are really important points. And again, for those listening, you know, these are not separate. And I think you made the important point that you might find vagal dysfunction in one person, but the limbic system and the vagus are intimately related.

So if someone's had trauma. Right. and they've not resolved that trauma, we've seen this ourselves. They may not. It's almost like as if their immune system says to them, I don't feel I deserve to get better.

It's almost as if they're programed on that level. And we've seen people go through the gut to take Nique or the anti hopper get better from it. the vagus dysfunction gets better, right?

But so does the mast cell because they're all interrelated. So I think that's the important point is you can't just approach the vagal nerve. You've got to approach the limbic the vagus the mast cell.

and and of course when we look these days for, for example, leaky gut in our patients. Right. And histamine sensitivity, we're finding it in the vast majority of our patients at this point in time.

I mean, I, my wife used to affectionately call me Itchy Richie. Right? Because every time I would eat, you know, dark chocolate or something, I would arch and she could write my name on my back and it would come up with dramatic graph ism within seven seconds.

Right. So, but I will tell you that after healing my gut right, and pulling back and doing detox, it's at this point, I mean, it's it's much better. So the good news, of course, as you said, is there is hope for healing here, but it's very important that people know that the up to air technique for any hopper, for the limbic and, and even with the vagus nerve.

Right, what you were talking about with the micro frequencies. Right. And and doing these techniques will heal ultimately the vagus nerve. you know, I just want to point out in my patients that a lot of them who started on salt and fluids for vagal dysfunction with maybe some licorice and, did some f and midbrain, they did absolutely improve.

In fact, I got an email this morning from a woman I had a with just her beta blockers. For some reason, she didn't tolerate metoprolol as well because it has central nervous system penetration.

We gave her 12.5 of a channel for her vagal dysfunction in pots three times per day because it's a shorter acting drug and she's on drug C dopa, one of the other drugs we use for pots, too.

So Autonomia and I got an email from her this morning that after her last pulse of doing DAP. So and I think it was her second pulse, her two week pulse, all of a sudden her vagal pot symptoms are way better.

She doesn't have the fatigue. She doesn't have it. So these are all interrelated. We like looking at them as if they're separate. But when you're treating the three B's beryllium, Berbizier, Bartonella and and you're working on the vagus nerve and the limbic system and the mast cell, all of this kind of works together.

That's the 16 point model. And and, you know, I think you've made tremendous contributions to the field regarding your mold and vagus nerve dysfunction, because I've learned from you over the years, and certainly I am now able to help some of my resistant patients, thanks to your work, that I was not able to do years ago, because I don't want to say I was doing the effect of mold because it was showing up in everyone, but it's like it's smacking me in the face.

Recently as far as like, oh my God, even though in my world it is the infections number one, toxins.

Sensitive Patients, Mold, and Detox Challenges

Number two, every once in a while those toxins get up there with the vagal dysfunction and it just, you know, creates havoc in the entire system. So beautifully said.

And I think I want to take that apart just a little bit that underneath this Lyme and co-infections and mobile toxicity are the key players here. If you cure them everything else will get better.

The problem is you may not be able to cure them unless you do the work to get all the other systems settled down so that the body can accept the healing you're trying to give them.

So again, I call mold and and Lyme the key issues get them fixed, the immune system can get better. And then once the immune system gets rebooted, everything else gets better.

So the problem is that's true. But so many of our patients, we can't get to the treatment to curing of them until we get their other systems aligned. So from again, another simplistic way of looking at it when you have limbic, vagal and mast cell hypervigilance, okay.

If you only treat the limbic system, you're still going to stay hypervigilant. If you only treat the mast cells, you're going to stay hypervigilant. If so, you have to treat all three for the systems to settle down.

And as you're beautifully describing, once the body is less, feel safer. I really want to put it in that context. Once the body is safer, then it can accept the healing that we're giving for Lyme and mold and everything settles down.

So you don't need to treat these things for the rest of your earthly life. You can actually be, well. No great, great points. And I want to highlight again for the listeners that in my world now, having done this for over 35 years with 13,000 chronically ill patients treating Lyme, Berbizier, Bartonella, when I say Bartonella, it is these days the number one.

But keep in mind that maybe other chronic infections, like some people may have yellow genetic fever, or have been exposed to Anna plasma. Right. There are other chronic infections.

And especially we see viral reactivation with Epstein-Barr herpes virus six. some people have Candida, right. Other issues with Candida and fungus. But once you get to the infectious piece and the toxin piece, and then you keep in mind when those you've addressed these properly, then the limbic system, the vagal system addressing the mast cell, certainly these are going to unleash the illness.

And, you know, in the model that I use with the 16 points, you were talking about the gut earlier. and I know Jill and other people that we speak to all the time, talk about this sometimes, you know, in the highly sensitive patient or a patient who's gut is out of order, you need to test them for H.

Pylori and Sibo and get that taken care of and, and fix the microbiome and and treat their leaky gut and heal the gut before you can go ahead and do some of the others.

So the important point is in the model that I'm using is the six inflammatory factors of infections and toxins and nutritional deficiencies and sleep disorders.

Right. And then microbiome and Marcel with the downstream effects of mitochondrial dysfunction pots this autonomia neuropsychiatric issues immune issues autoimmunity liver dysfunction hormonal dysfunction once those pieces this is the great news about this summit which you're pointing out the mold piece and the toxin piece and the infectious piece.

As long as you are really addressing those properly and keeping in mind with the vagus nerve, the limbic system, the mast cell, a lot of these patients get better.

And we're seeing tremendous success right in the last couple of years since some of these newer protocols have come out. I didn't know this 20 years ago, and I wish I did.

So, the last 20 years have really taught us a lot about how to approach this in a much more comprehensive way. And I know that our discussion may sound to some folks out there of, well, this is complicated.

It is. But if you use critical thinking skills, you can think your way through it piece by piece, step by step. Your 16 point protocol is a beautiful way to do that.

And and I'm going to take a moment to say, if you have Lyme disease, please get checked for mold toxicity sooner rather than later so you don't wind up coming back to the table 2 or 3 years later with I'm doing everything you told me to do, and I'm still not better.

A huge percentage of patients with Lyme have mold, and part of that is because Lyme weakens the immune system, predisposing to mold and mold weakens the immune system predisposing to Lyme.

So when you start looking for it, you will see it in a surprising number of your patients. And as Rich is learning, please take the mold seriously. It's treatable and will make your your whole treatment program, much more effective.

No, I absolutely I, I've come around to your side after the years and I, I still will say in my universe, it still is primarily infections. But boy, when I hit those resistant patients, it it's like what is happening here?

And by the way, they both of these recent patients completely denied mold exposure. Right? Then one of them in Europe said, you know, I think it might have been an inch of rain one time that got in, you know, to my studio.

And then it was like the Aflatoxins were like in the 50s. It was like 50 times I oh, it it was I looked at this and now this patient who I've been treating for several years, it was just a couple of weeks ago.

He said, Rich, I'm 99. He said if it wasn't for the libido, right. Which gets affected by almost everyone with this disease, he said for the first time, I think it was in decades I will be completely normal and was like, yay, we're fine.

So this is a really, really important piece and I'm glad we we got to highlight it. So let's let's sum up a little bit because we're getting to the end here with the vagus nerve.

There are ways of checking, as you said, very important with the gag reflex with the uvula sitting at standing blood pressure and pulses till table testing.

Very very important. We've got the techniques with the anti hopper and the Gup to air as well as the micro frequency and cranial sacral. so why don't you just sum up a little bit for us and then also tell people again just before we finish up any other information, Neil, you think that in your clinical experience with these really difficult patients, what other words of wisdom do you want to share with them?

Right. Because you're on the front lines like, I, I'm trying to get these really difficult patients better. Okay. So I think this segment of the summit is really to, talk about some other components that affect a large percentage of patients with with Lyme and Bartonella and the PCR and other co-infections.

And it's to keep in mind that this is likely to have affected your limbic vehicle and mast cell systems. Please look at that sooner rather than later.

please, consider mold and in your diagnostic, sooner rather than later so that you're looking at a more comprehensive overview when you start what I hate is to come back to the table three years from now and go, I should have checked you for something sooner.

I should, I mean, in other environmental things, heavy metal testing and things of that nature. again, your 16 point program is an excellent model for how to comprehensively look at things.

If you follow that, you won't get blindsided three years down the road and go wrong. Mr.. When I should have I should have done that sooner for patients who have gotten sensitive, these are critical.

I didn't talk about other components of sensitivity because it's a little more complicated, believe it or not, in this

complicated discussion, we were keeping it simple.

Bare bones. It sounds strange, but actually true. Other things enter the sensitivity realm. Patients become sensitive to oxalates and solicit lates. Their structure needs to be looked at because physical structure also relates to people's ability to allow optimal blood flow, neurological flow in the body, lymphatic flow in the body.

So a lot of patients benefit from lymphatic massage and osteopathic manipulation involving the whole body. So there are other things involved.

Long COVID, Trauma, and Nervous System Hypervigilance

Again, to be self-serving for a minute, you may well benefit from my new book, The Sensitive Patient's Healing Guide, which goes into all of this in detail.

So just going to trust that as a resource for you now. Thank you, Neil. And and of course, in my patient population, I mean, I discuss, meditation with them frequently, because you need that relaxation response, right?

That parasympathetic vagal response, relaxation response, I mean, which has so many benefits at this point with, helping balance cortisol in the body.

and by the way, regarding that, if there's a patient that you and I have seen together, I just got an email this morning, by the way, this patient finished their first.

You'd been seeing them for a while from old, and I finally got them to do the the daptone protocol. He's doing better, by the way. when we're off the line, I can tell you who this.

You may know who this is, but the person is definitely doing better. I got back to adrenals this morning. Phase two, adrenal dysfunction with literally no cortisol at noon, going through until 7:00 at night.

Mom was telling me, oh, he's still chronically tired. I went, we've got to kick up the adrenals right, and and get all of this done. But again, going back to the 16 points, this kid was filled with mold toxins, right.

Living maybe not in still such a safe environment still because they're trying to find a safe environment but definitely got help with this. Now we're addressing, the adrenals.

But the point being, when you go through the 16 point message map, please don't ever forget Libby's your Bartonella. And don't forget mold, don't forget bagel.

And especially cause with long Covid we are going to be seeing a lot of overlaps with people who have autonomic dysfunction from the vagus nerve, from the Covid pandemic.

so it and it and it's difficult because it causes fatigue and brain fog and anxiety, palpitations, dizziness. It overlaps the same symptoms you see with mold and you see with lyme and Bartonella.

So you've got to really be able to pick this apart and see what role, the vagus nerve in all of this is playing. So Neil thank you. It's you're very welcome.

We have a few more minutes. Yes, yes. Of course. Okay. So let me just comment. Many people who are struggling, what they think is long Covid don't realize that the Covid, the inflammation triggered by Covid, has unmasked Lyme and mold toxicity.

So we found a lot of is people who are think they have long Covid actually now realize that they have Lyme and mold. And if we treat those there are so-called long, long Covid goes away.

There is a long Covid, but a lot of those are in this other realm, and I'm not aware of it. But I want to maybe to

close, I wanted to give a an understanding of why almost all of our patients need to think about this whole vagal limbic process, these systems, the limbic and vagal system, are out there to protect us.

The protective in nature. They start getting challenged in all of us throughout our entire life. So we start out in childhood. And if you are unfortunate enough to have recurrent infections or need surgery as a child, or you grow up in a home in which there's any type of abuse, emotional, physical or sexual abuse or and and as you progressed through life, your limbic and vagal systems become increasingly hyper vigilant because they're looking at the events in your life and going, oh, this is a scary world.

I've got to protect you. I've got to make you more vigilant, because there are things out here that can hurt you. And so as you go through life and have a variety of stressors or things, or you have losses in your life of people that are near and dear to you, or have a divorce or have, you name it, whatever the stress or bankruptcy, each of these adds to the hyper vigilance of these systems.

So if you come to the point that you then have a toxin or an infection, mold or Lyme or other infections, as you mentioned, this is like the straw that breaks the camel's back.

Your system has already been prepped. I think you mentioned that at least a third of your patients have had underlying traumatic experiences throughout their life.

I would put it a higher, I'd put it at 70%, but it might be my patient population that that. So it was. A third of have actually said publicly to me, of course privately sexual abuse as far as emotional abuse, physical.

Oh no. Absolutely. The numbers are higher. There's no doubt. Okay. So and I agree it's it's a higher number than you might think. So please understand that all of us, every single one of us, the Covid experience pragmatically affected, all of our nervous systems and made us more hypervigilant.

So all of these life experiences that we have that have led you up to the present moment of your life, have added to the hypervigilance of those systems, trying to protect you, not trying to hurt you.

So I think that it's not a bad idea. Meditation, you mentioned, is being critical that all of us consider some type of limbic and vagal, treatment as adults throughout our our life to deal with the intense toxicity and stressors of the world that we all live in.

Absolutely. I agree 100%. And of course, without simplifying it, that is the mind body, emotional spiritual connection, right? I mean, we can't we cannot separate this out.

I call pretty much almost all the patients who come in to see me, except rare exceptions, the walking wounded, right? I mean, myself included. Right? I had abuse when I was young.

So did my wife. I mean, we all have had experiences. I think as physicians, it even makes us more compassionate because we understand what people are going through.

But no, I 100% agree. And and I want to again, thank you so much for taking the time. We're pretty much out of time today, but I want to thank you so much for taking the time.

just in the last minute that we have just tell people again, how can they contact you? What's the best email, to contact you if they have any questions.

Okay. my website is simply neilnathanmd.com And if you have questions or want to consult with me, I'm happy to do so. It's simply askdrnathan@gmail.com Good So thank you so much.

And again, thank you everyone for attending another one of these great seminars from DrTalks the Healing Lyme Summit. this was really, I think, an exceptional talk today.

I think it's going to benefit a lot of people. And and thank you, my good friend Neil Nathan, I God bless you for all the work you're doing. And, please give my best to your lovely wife and, may, may all go well.

And I hope we get to see each other later this year, because, Right back at you, Rich, we love you. And we really appreciate all you've done. And continue to do here.

Okay, good. Well, good bye, everyone, and we hope to see you soon. Thank you again for attending. Bye bye.