Introduction and Dr. Nathanu2019s Background

Old toxicity messes with zonulin and creates leaky gut. So again, in the functional medicine world, one of the things everyone is taught, fix the gut first, everything will follow.

That is true for everything except mold and candida. So you can do every intervention you want and it's not going to work if you don't get the mold and candida out first.

So it's just knowing again what to do in what order. But if you have mold toxicity, the vast majority of our patients have leaky gut And so they have become way more prone to having a food allergy.

And so this has become a likelihood. So yeah, look, this is all complicated. This has to be addressed as part of the bigger picture. This is Doctor Talks, real talk from real doctors on the issues that matter to you most.

Welcome to the TBD Fit podcast. Today we have the incredible Dr. Neil Nathan with us. He is a board certified in family medicine and pain management and a founding diplomat of the American Board of Integrative Holistic Medicine.

He leverages many different holistic treatments and remedies within his practice, which I believe surmounts over 50 years now of direct patient care. He is a world-renowned speaker and a best-selling author of the couple books, Mold and Mycotoxins, Current Evaluation and Treatment, and the toxic book, Heal Your Body from Mold Toxicity, Lyme Disease, Multiple Chemical Sensitivities, and Chronic Environmental Illness.

I am extremely excited to dive into a conversation with him today as he is and absolutely book of knowledge, pun intended, in all things chronic disease.

Dr. Nathan, it's a real honor to have you on the show today. You've helped thousands of patients and practitioners worldwide understand chronic and complex illness.

For those of you who may not know your story, how did your career evolve from conventional medicine into specializing in areas such as mold, toxicity, Lyme disease, and environmental illness?

When I went to medical school, I wanted to be a healer. And I was somewhat disappointed that when I got into medical school, I realized they were not going to teach me how to be a healer.

They were going to teach me medicine as it's practiced. And that did not include all the other aspects of healing that I think are important. Now, I went to medical school in 1967. So the word holistic wasn't a word at that point.

And when I would bring up to my professors, there's got to be more to this than what we're doing. They looked at me like I had two heads and like, what are you talking about?

So when I left medical school, that's when my journey really began. I just started studying healing from any source that would give it to me. And I later would have had words that I could have explained to my professors what they were missing, but I didn't even have a language for it.

I just knew that this is a piece of it, but it's only a piece of it. So I then studied pretty much anything you can think of. I would go all over the country to study with people who were doing homeopathy, osteopathic manipulation, therapeutic touch, acupuncture.

I mean, I've studied all of these. As functional medicine began to evolve, I got into going back into biochemistry. and learning the things we didn't learn in medical school, which were actually important, spiritual healing of almost

every type.

So if it was weird, I probably did it somewhere along the line. I just had a passion to try to increase my tool bag so that I had more to offer patients.

And my interest has always been in helping the people that my colleagues couldn't. for whatever reason. So they were really happy to refer those people to me.

And so it kind of pushed me to stay on the cutting edge of studying and learning and integrating what I knew. So in terms of what we're currently wrestling with, I was working as the head of a regional pain clinic in Duluth, Minnesota.

There was a hospital-based unit, and we started seeing people in the mid-'80s with this odd condition that they called fibrocitis, which we now call fibromyalgia, in which People had symptoms that didn't make any sense.

And when that happens in medicine, the usual thing to do is, well, it's in your head, so go see a psychiatrist. That didn't work at all for these people.

So it was clearly not a psychological condition, but we didn't know what it was back in those days. And we started to pick up tools for how to work with it.

We began to learn about the biochemical contributions, the structural pieces of that. By the mid-90s, I was working with Jacob Teitelbaum, who had done a lot of work in chronic fatigue syndrome and fibromyalgia.

And we were finding that we could help the majority of these folks if we figured out the pieces of the puzzle that were causing these illnesses. And over time, they began to realize that a lot of those folks actually had Lyme disease.

And over time, we realized a lot of those folks had mold toxicity or other environmental toxicities.

How Mold, Lyme, and Chronic Illness Are Distinguished

So my evolvement, if you will, with inflammatory chronic illness kind of came over time, kind of was in on the ground floor as we began to put the pieces of the puzzles together so we could really help.

the majority of people that were coming to see us at this point and being told by our colleagues, oh, I don't know what you have. It's in your head. Go home.

And that was never an acceptable answer for me. Yeah, I couldn't agree more. We hear that all the time. Many of our listeners struggle with unexplained symptoms.

And how do you help patients differentiate between mold illness, between Lyme disease, between chronic fatigue syndrome? That's a very good and complicated answer.

First, by really listening to what they have to say. If you're in an HMO practice and you can see someone for seven minutes, there's no way you can convey the complexity of what's going on for you.

So that system isn't really compatible with beginning to delve into it. So you begin to take a really in-depth history going over, have you been exposed to water damaged buildings?

Have you had tick bites or what have your symptoms been and how have they evolved? You can begin to tease it apart by history alone, and then based on the likelihood that that pattern of symptoms fits a particular illness, you could begin to test them much more specifically for what they have.

And over the years, our testing has gotten a lot better. One brand new test that I'm liking a lot is Bruce Patterson's

radiance lab cytokine test, because one of the underlying conditions that is part of almost all chronic illness is inflammation.

So what these things have in common and the reason that people who had long-haul COVID or Lyme disease or mold toxicity or fibromyalgia or chronic fatigue, what they have in common is their body is being pushed to make inflammatory cytokines in a way that they can't get that under control.

And so the question is, well, what exactly is that like? And Dr. Patterson's 14-canal test is beginning to give us information to show us different cytokine panels in different conditions.

So we can now separate long-haul COVID from Lyme and from mold by doing that test. And as Dr. Patterson's research continues, we'll be able to do more of that.

So it feels being really acutely listening to the person in front of us about what's going on, and then we can begin to use pattern recognition to go, okay, what is compatible with those symptoms?

If it's mold and line, we can test for that, and then we can begin to tease that apart. I say that all the time with our patients that symptoms often enough come in tandem with each other and then reflect a specific pattern.

So within specific illnesses, usually there's a pattern representation that kind of allows us to, to investigate further. In your experience, what are the most common early symptoms?

Let's say if we're looking at mole toxicity that are often overlooked or misdiagnosed. Well, first of all, anyone who comes in who has a whole lot of symptoms, that's mold or lime until proven otherwise.

And so when those folks go into most healthcare practitioners' offices, they get overwhelmed by all of that. And they say, well, nothing could call all of that.

That's got to be in your head. But actually, that's not true. the underlying inflammatory process triggered by mole toxicity will cause symptoms in every category.

So in a generic way, almost all of our patients will have fatigue, cognitive impairment, then pick the organ system, headaches, joint pain, muscle pain, muscle spasms, shortness of breath, air hunger, chest pain, pelvic pain, bladder pain, every GI symptom imaginable, bloating, gas, distension, diarrhea, constipation, cramps, abdominal pain, neurological symptoms like paresthesias, which are numbness and tingling in the extremities, other kinds of specific neurological disorders occur.

And that's just tip of the iceberg. So virtually any complex group of symptoms almost immediately says, check me for mold toxicity or something in the Lyme family, a co-infection family of Lyme, which is not just Lyme, but Lyme, Bartonella, Betesia, Ehrlichia, et cetera.

So it's the complexity of those symptoms that we're looking at. They also produce almost every psychological symptom conceivable. So if someone has generally not been anxious or depressed or had OCD behaviors or mood swings, again, it lights up with, yeah, let's go check you for what's causing that.

How do you determine order of operations? So when you're looking at a patient with so many different co-infections as an example, which is typical, how would you determine kind of the pyramid, like where do you start?

Well, you start by first identifying what is the major trigger. So it could be Lyme. It could be mold. It could be mold hemline, which is very common.

It could be long-haul COVID. It could be mast cell activation. So there's a lot of things to choose from. The order of treatment is particularly important.

And what we've learned over the years is that if you have mole toxicity or Lyme and it doesn't get diagnosed or

treated, it will eventually also trigger limbic dysfunction, vagal nerve dysfunction, and mast cell activation, which will make everything worse.

So, when you're trying to sort through this complexity, you need to not only ask what's the major thing going on here, but has it triggered other things that if I don't look for those and treat those, is that person going to be able to get well?

Example, if you were going to treat someone with mold toxicity and you jumped in with binders, If you have a sensitive patient, you're going to throw them under the bus if you don't really pay attention to what they're telling you and what they're experiencing.

Common Mold Toxicity Symptoms and Diagnostic Clues

And they may need to do limbic and vagal retraining first, then add mass cell activation. Then you can start adding binders and adding antifungals when their body is ready.

So the order is extremely important. And I get consultations from healthcare providers from literally all over the world who aren't doing it in the right order.

They got the idea. They kind of know what they need to be doing, but they may jump in and treat Lyme before they treat mold, and that is usually won't work.

So if you don't do it in the right order, patients are going to struggle. That's a wonderful elucidation of how to look at the thing's big picture. Let's dive deep right into this component of order or treating in a specific order.

If a patient causes an example with both mold and Lyme. Are you then thinking about, because you mentioned, I guess, specifically mold and lime, are you then treating the mold before the lime or the line before the mold?

Is there any red flags that would dictate one way or the other? In my world, the mold comes first. Yeah. Everybody's different, but I would say that 98 to 99 percent of the time you need to treat the mold first.

A, it's easier. It's not as hard on the body as when you're trying to give antibiotics of different kinds for long periods of time. Patients may be able to handle that, but many can't.

Especially if they have mold also. And I want to emphasize that it's extremely common to have mold and Lyme together. Mold weakens the immune system predisposing to Lyme.

Lyme weakens the immune system predisposing to mold. Often that goes unrecognized. So depending on how you entered the chronic inflammatory complex patient world, if you entered as a Lyme doc, most of them will focus on the Lyme and maybe look for something afterwards.

I started that way, but when I began working more with mold I realized that you needed to do it in a different order. So several reasons. One thing is it's very difficult symptomatically to separate mold from Lima Bartonella.

They look really similar. There's a couple of symptoms that kind of put it in one category or in the other, but the bigger picture is really pretty similar.

So one thing that happens sometimes is if we treat the mold completely and we take that layer off of this complexity, a lot of people get completely well.

and we don't have to go down the lime rabbit hole. But if we're treating the mold and people get 70% better, what they have left will point us in the direction of what we need to do next.

Second, if you get the mold piece off the table, we're removing a huge chunk of inflammation which will prevent the body from healing. So if we take that whole inflammatory piece off, it's way easier to treat the Lyme.

You can get it treated much more effectively and faster if you get the mold off first. So there are some very specific reasons for treating the mold first in my world.

And I have this argument with lime specialists all the time, but increasingly those that are paying attention will come back and say, you're right. You've got to treat the mold first.

Yes, I found that to be a very helpful order of operation within our patient population as well. In terms of the azoles as an example, so looking more with some of the pharmaceuticals as options, how often are you considering that as kind of a staple in your treatment plan in addition to anything nasal as well?

most of the time. Again, everybody's different. If you can catch someone early on in their exposure to mold, you can sometimes cure them with binders alone, and not everyone needs to take antifungals.

But in my world, I'm usually getting people referred to me long after this has happened. They've not been treated quickly. The diagnosis hasn't been made.

And those people exposed to mold for longer periods of time will colonize in our sinus and gut areas. And so most of them need antifungal treatment for the sinus and gut areas eventually.

It's just… They just won't get well if you don't do that. They may move, they may get out of the moldy environment that they had or fix it, but they're carrying mold and candida in their gut, in their sinuses with them.

So moving won't fix that because it's still in their body. And in your experience, have you found some of these patients require long-term use of these as well?

Barely. Most people will get well within a year or two. And if that upsets folks because they go, gosh, a year or two of antifungals, that's a lot. But you've got to understand the nature of mold and candida, which is if it's already in your body, it's very happy there.

The nutrients they have access to are fabulous. Temperature is perfect. It's moist. It's dark. Why would it leave? So it isn't going to go away because you want it to.

You actually have to get it out of your body. And it doesn't leave readily, so it takes longer to treat than most people think. I mean, I'd love it if we could come up with a way to do this quickly.

I haven't come across it yet. So, generally, it takes at least a year to really get rid of the mold, sometimes two, and I've had some people who've taken three to five years to get well.

For those people who take longer, usually it's because they're still exposed.

Treatment Order: Mold First, Then Lyme and Co-Infections

So, the biggest hang-up in getting people well is that they're still getting exposed at home or work or in their car or they're going to their parents' house every week for dinner and it's moldy there, but somewhere they're getting an ongoing exposure that is not allowing them to heal.

But if you can get the environment squared away, most people can get well. in what I call reasonably a quick period of time, one or two years. That doesn't mean you have to wait a year to feel better.

You can start to feel better all along, but to really get the mold out takes some time. Yeah, full resolution. In terms of nutrition, how important or foundational does nutrition become?

Do you ever suggest specific nutrition plans or abstaining from carbohydrates or sugars or discuss maybe a little bit the importance of nutrition? Yeah, it matters big time.

If you are taking in sugar or fruit or a whole lot of carbs in any form, the yeast and mold is thrilled. This is wonderful. You're feeding me. This is great.

My favorite food, sugar and fruit. So I have seen people stall out in their healing because they just couldn't commit to a truly high protein, low carb type diet and stick with it.

I remember one, when I worked in Missouri, I had a woman who was a spiritual leader of her community. And she was elderly and had her ways, and she was growing out Canada, but wouldn't change her diet.

And this went on for one year, two years, three years, four years, five years. And she would say, I can't give up my blueberries. I said, well, when we started, you were growing only one species of candida in your stool.

Now you're growing three. So if you want to stay sick, go ahead and eat your blueberries. I can't control that, but it's not working for you. And so she reluctantly gave up her blueberries, kind of kicking and screaming the whole way, and then got well.

So I really have seen it make a difference. And I know people don't want to hear it. That will give up a lot. But come on, Neil. It's fruit season. The plums and peaches and watermelon, they're ripe.

It's like, how can I not do that? I go, well, I can't keep you from being human, nor do I want it to. If you will commit to this for a year, the odds of you getting well are huge and then you can eat anything you want.

So it's like be disciplined for a year or you want to spend 10 years with me feeling really lousy. Your call. Yeah, temporary sacrifice. I say that all the time with our patients is that we get in our own way, but often enough, we just don't know sometimes better, right?

Blueberries is an example. It was just such a profound example because it's known as a superfood now, right? And people think they're doing so good with eating blueberries or some of these other foods.

When you're, are you doing any sort of food sensitivity tests, maybe to demonstrate to the patient that actually some of these foods that they're consuming are lighting you on fire?

It just depends. It depends on the symptoms that they have. A lot of our patients do have food allergies. I don't find food sensitive testing that good.

I'll usually use elimination diets early on in the course of treatment to help pinpoint what are the biggies that are getting these folks in trouble. Dairy products and gluten and wheat and things, that is a biggie.

And then other common ones are sugar, citric products for causing joint pain. Pork is probably one of the biggest offenders, the nightshade family of plants.

people have to become their own detective to figure it out. I do find elimination diets much cheaper, for sure, and much more accurate in terms of really honing in on, are there foods that are setting off some of these symptoms?

So is that a part of it? For a huge percent, mold toxicity messes with zonulin and creates leaky gut. So again, in the functional medicine world, what are the things everyone is taught?

Ticks the gut first, everything will follow. That is true for everything except mold and candida. So you can do every intervention you want and it's not going to work if you don't get the mold and candida out first.

So it's just knowing again what to do in what order. But if you have mold toxicity, the vast majority of our patients have leaky gut And so they have become way more prone to having a food allergy.

And so this has become a likelihood. So yeah, look, this is all complicated. This has to be addressed as part of the bigger picture. Patients have hormonal dysfunction almost all the time because mold, Lyme, Candida, mess with

the pituitary's ability to regulate hormones.

So looking at their adrenal, thyroid, sex hormones and balancing them out during treatment, can be not just helpful, but necessary. I want to double click on some very, very enlightening components you shared there, but the last question about nutrition.

So you said high protein, low carbohydrate type representation. Does that mean abstaining from plant and vegetables as well? No, not at all, but. Vegans, vegetarians generally have a high carb intake and not enough protein, so it's harder for them to do it than it is for some others.

So basically what I'm looking at is high protein, low carb. A big fan of incorporating broccoli, Brussels sprouts, cabbage, the cruciferous plants are very good for improving detoxification.

So eating plants is great. Maybe not potatoes, rice. But again, it's not zero. You can't have a no-carb diet. It's a low-carb diet. Keeping the carbs down is key.

And that varies from person to person. I often will say, keep the carbs down to 60 grams a day or less. But at that dose, a number of people will feel just awful and just don't feel right on that.

And so they may need to go up to 80 grams or 100 grams to get into a level that is compatible with their body needs. Yeah, that makes sense. And the impact on the gut is very interesting.

So that's my specialty. And a lot of patients that come to me for gut issues will clean them up and they'll feel, you know, 75 to 85% better within sometimes even a couple of weeks.

Antifungals, Diet, and Gut Healing

Like the turnaround is pretty quick. But then some certain symptoms linger and they discuss that they're feeling some things that are still off and we'll do kind of a mold or mycotoxin test.

We use a couple different testing. I think in the previous lecture that I heard you speak, you're a fan of the real. Real labs, if I'm not mistaken. Yeah.

I've done split specimens of urine to all of the major labs. And I find real time to be the most accurate, not just for the first test, but for follow-up testing, especially.

It's way more accurate than mosaic or vibrant in terms of giving us the information that will help our patient. After what frequency are you retesting?

About every four months, it won't change quickly. So I've had a few wealthy people who wanted to check every week and they got very frustrated because of how mold toxin levels fluctuate.

To see a pattern, you really need to give it some time. How, and when you mentioned Candida too, and when you're testing, with what frequency do you see heavy metals being an issue or the aggregation of certain heavy metals in particular with Candida overgrowth or mold?

You see it all the time. If you're familiar with Bob Navio's cell danger response concept, part of the cell danger response is a sequestration of heavy metals as a part of the defense mechanism of each cell as it tries to fight off the threat of either an infection or a toxin.

And so it comes with the territory. So the majority of our patients will, if you do provocative challenge testing, will have elevated, particularly mercury and lead.

Those are the two biggies. But almost anything, it could be gadolinium or cadmium or arsenic or It could be any of those things. When you cure what's messing with the body's threat, if you cure the cell danger response, if you get

people's well, they will automatically improve their ability to detoxify and that will come down.

So the question arises, should you be treating heavy metal toxicity with mold toxicity? And the answer is, depends on how extreme it is. If it's severe, yes, it should be treated along with it.

But I have to say, if the patient can handle it, I see a particular population of patients who become very, very sensitive. And our ultra sensitive patients usually can't do it.

And so then we have to wait until they're further along in treatment and their body can handle that. Then we can presume and go after heavy metals. But again, when people say, oh, I have heavy metal toxins and I want to treat that first before I deal with anything else, they're working on a downstream effect.

That's not the trigger. still not dealing with the cause, which is usually mold or lime or something in that family. So it's not that they don't have it, it's that they're going after the wrong thing in the wrong order.

Which is understandable. But when you reference those big two, let's say lead and mercury, are you then leveraging DMSA or DMPS for both of them? Are you treating binding one differently or chelating one differently versus the others?

It depends on what, so if they have lead, DMSA or ADTA is a better chelating agent. If they have mercury, DMPS is a better chelating agent. So what you use should be tailored to whatever it is you're seeing so you can optimize the detoxification effect.

which makes sense that we see that come hand in hand very often. Now, as far as going back to the microbiome, we'll see a big disruption with specific species.

Let's say oxylobacter being able to digest oxalates right within the nutrition plan or a reduction in phyla. So the bifidose species or lactobacillus often are reduced substantially within patients of these populations.

Are you kind of adding in a specific probiotics at any point or concerned with that? Because what I find is that when we're restricting patients, especially with some of these healthy carbohydrates, fruits have confer a lot of micronutrient benefits, but also probiotic benefits that can feed healthy phyla species.

Are you thinking about replenishing some species during this process or do you just find that improve over time as people can add in more fiber? So I'll make the same comment that I started with, which was, you can't fix the gut until you get the mold and candida out.

So you can, and I do use different probiotics. They don't work very well until you get the mold and candida out. So you could do it. I know it makes sense.

I mean, it's logical. You look at a lab report and it goes, there's virtually no bifidobacteria. Well, let me give you probiotics. But if you test them again and they haven't fixed them, it's going to be there again next time.

Even though you're putting it in their body, their body can't use it at that point. The body's on survival mode and it's going like, okay, that's a very nice thing you're putting in a body, but I can't use that.

I've got other priorities here. I'm not big, that's not a major component of the treatment because I think you have to come at it from top down, meaning what is the primary thing that this gut is struggling with rather than, oh, you're low on this so I'll give you that.

I understand the concept, it just doesn't work that well. Yeah, that makes sense because when we would retest initially, this was years ago, I would find that there would be little improvement.

But then as patients were sharing more and more and we started doing or leveraging some more of these testing, we would find that's the reason why they haven't kind of received that 100% improvement rate, right?

They were kind of stuck at 75 or 85%, which they felt much better. But to me, that's not enough. Like I want them thriving, right? And I remember a patient saying, some time ago where he didn't know what it meant to breathe through two nostrils, like he could actually breathe again.

Giving someone the gift of breath, we often take for granted. But looking at it in terms of this cell danger response and the priority and the body trying to just fight to stay alive, obviously, sextarial hormones are no longer a priority.

If someone comes to you and you see obviously, you know, a patient is ill, but there are also, let's say it's an older male who wants to replete his testosterone, right?

Energy load, libido's low. If you clean him up and get him into a healthier state. Do you find like a hundred percent reversal of T, let's say, or sex-started hormones?

Same thing with post-menopausal females. At what point are you integrating, let's say, bioidentical hormone replacement with some of these sick patients?

Earlier, again, I mentioned that mold toxicity messes with the pituitary's ability to regulate those hormones. So it's not going to be a shock if someone's testosterone is low or their estrogen is low or their adrenal or thyroid isn't up to smuff.

That's common.

Heavy Metals, Detox, and Microbiome Support

They'll heal faster if you can get them into the right ballpark. You can't fine tune hormonal balance because it's a shifting picture. It just doesn't settle down until you get what's messing with it, like the mold toxicity, out.

Once that happens, More often than not, the body will reboot itself, but not always. Sometimes you have to help it reboot by giving bioidentical hormones.

And I do find that getting them started sooner rather than later speeds up the healing process and helps them feel better. Example, if someone had a low adrenal function and their DHEA was low or their cortisol was low.

Adding that may give them enough energy that they can do more of the things you're asking them to do so that they can be more functional in their healing process.

If a woman has low estrogen and has with it anxiety, mood swings, cognitive impairment, fatigue, as well as the hot flashes, Not only will she feel better, but by reducing those symptoms, won't get completely well on estrogen, but by reducing those things, she can function better and that will help her heal faster.

Yeah, that makes absolute complete sense. In terms of supporting the adrenals with maybe sometimes some herbals or supplements, do you have anything that you often introduce such as like L-theanine or Ashwagandha or anything to support sleep, maybe melatonin, let's say, are there things that you are adding in as well to support the adrenals?

Usually I try to identify which adrenal piece is lacking. In my way of thinking about it, there's three main adrenal pieces. There's cortisol, there's DHEA, and then there's the mineralocorticoids.

So depending on what symptoms the patient has, I may both test for and treat those. Again, if someone is low in DHEA, I'm prone to giving them DHEA itself.

If someone is low in cortisol, I'm prone to giving them cortisol. If someone's low on nitrile or corticoids with low blood pressure, feeling lightheaded and dizzy every time they stand up or move, they might respond to fluorine F in very small doses.

So my medical background is such that I tend to use them rather than some of the more natural materials. I use a lot of natural materials in my work, but for those, I find those interventions more effective.

Got it. And you've worked extensively with patients experiencing some of these extreme sensitivities, let's say to EMF and chemicals and supplements. What do you suggest is happening neurologically with these patients?

Well, I have a whole book on that if anybody is interested. It's called The Sensitive Patient's Healing Guide, which I wrote with 20 experts in the field.

So it goes into great detail about what creates the sensitivity and how to fix it. We've learned a ton about that in the last 20 years. But the trifecta, which are the three most common pieces of the puzzle that need to be addressed for sensitive patients, are limbic dysfunction, vagal nerve dysfunction, and mast cell activation.

And they all come together. They all interface with each other. They're all interconnected. So generally, people need to do all three of those first before they try to fix what is triggering this in the first place.

Otherwise, they may not be able to take binders. They may not be able to take antifungals at all, even in low doses. So again, it's understanding the order to do things in.

I have been on a, let's say relentless tour to try to improve vagal nerve tone, to improve HRV. I definitely want to go into the limbic retraining and mass cell, but in terms of the vagus nerve, do you find any sort of treatments that are very effective or now some of these external modalities that you can use that you can apply to the skin, to the neck, even to the ankle with some of these wearables?

Do you find anything particular that moves the needle very well? I do. There's a whole bunch of things that could be done for the vagus nerve. Historically, Darius Karazian, maybe 15 years ago, when he started teaching about the gut-brain axis, was talking about gargling, singing, humming, gagging, as simple ways to help reboot the vagal system.

And they work. But we've come a long way since then. We can do a lot better. So I'm really fond of vagal nerve stimulators. For my sensitive patients, the one that works the best is Apollo Neuro.

The vagal stimulators that go on the ear or go on the neck directly tend to be too strong for them, but they're there. Depending on what I will call the sensitivity or lack thereof, the constitutional strength of patients, you can pick a vagal stimulator that's likely to be helpful in work.

I also like osteopathic cranial work for helping to reboot the vagus. Frequencies with microcurrents favor devices for rebooting the vagus. There's another device called brain tap to do that.

There's tapping procedures like emotional freedom technique that people can use. Combining those, one alone may not be sufficient, but combining those is usually really helpful on the vagal side.

Yeah, the Apollo Neuro is one that I've suggested for some time now and patients have found notable success with that. And as a company, I've seen they have improved their technology over the years.

But definitely I think the combination is leveraging. I always say that in practice too. It's if you do a lot of the small details, right? It becomes a big detail.

And so that's when usually you hit the home run. So that makes sense. In terms of the limbic retraining, can you kind of maybe elaborate what that means?

The limbic system is the part of your brain that is devoted to keeping you safe by scrutinizing the stimuli in your environment from a perspective of safety.

And if the limbic system doesn't think you're safe, it's going to basically shut you down by giving you symptoms that

are highly annoying, but are not intended to annoy you.

They're intended to wake you up to the fact that you're doing something that your nervous system doesn't think is safe. And those symptoms are in two main categories, emotion and sensitivity.

So if you've gotten sensitive to anything, light, sound, touch, smells, chemicals, EMFs, food, that's limbic. If you additionally or separately have anxiety, depression, OCD, depersonalization, derealization, mood swings, That's limbic.

Hormones, Adrenals, and Supporting Sensitive Patients

So those symptoms are extremely common in our patients and they're like the patient saying, yelling at you, I have limbic dysfunction. This has to be addressed.

On the vagal side, the vagus does the same thing, but comes from a different neurological perspective. It's a different part of the brain. Almost always there's a vagal and limbic dysfunction there.

They're so interconnected. So that means you really need to reboot the limbic system and vagal system concurrently. And what is maybe an example of a limbic training look like?

Well, the commonest ones, some of the ones that have been around for a long time are Annie Hopper's Dynamic Neural Retraining System, it's called DNRS, Ashak Gupta's Amygdala Retraining Program.

More recently, I'm very fond of Kathleen King's Primal Trust. These are all, you can go on online and you can take it. It's a course. You simply take the course and it will teach you how to reboot the system.

And I want to emphasize that this whole discussion may sound like a negative discussion, but what I hope it is, is a ray of hope that every single thing we are talking about is treatable.

So we have learned a tremendous amount about all of this that allows us to really, in good faith, tell our patients that if we can guide you through this process, you can get your health back.

I couldn't agree more. I'm a huge, huge believer in the power of hope. But that's what we do daily with our patients. We instill this ideology of hope.

And to me, I keep it super simple. Input equals output. The body wants to heal. It wants to be in a healthy homeostatic state. Unfortunately, we're often getting in the way or our environment is setting us back.

And so if we can provide or change the environment, both internal and external, the body wants to heal. So we tell our patients all the time is you will get better.

It's just a matter of time. It's just providing the right input and how fast we can move that along as you expressed. In certain circumstances, things do take unfortunately longer, but the realization should be one of which you can heal.

The body wants to be in a healthy state. We were, I think, designed very intelligently in that regard. Now, in terms of mast cell activation or mast cell activation syndrome, and some people seeing this as a root cause, how are you looking at that and how are you then supporting that?

So the third part of what I call the trifecta of sensitivity, limbic vagal mast cell. Mast cells are a type of immune cell that lives, grows in every tissue of our body.

It's particularly prominent in the parts of our body that come in contact with the external world. If you're thinking immune cells, that's their job, which is something outside that we're being exposed to, something I need to know about.

So it makes sense that we would have more mast cells in our sinuses and gut because that's the quickest exposure to the outside world. These cells become activated in response to infections and toxins.

So, mold toxicity particularly, the word we use is activates. You could use the word sensitizes, becomes hyperreactive, hypervigilant, so that when those cells become hypervigilant, they begin to react overly to things that they didn't ever used to react to before.

So, for example, The ones that line the GI tract, one of the cardinal symptoms of mast cell activation is if you are eating something and you start reacting to it while you're chewing it or within minutes after eating it, any reaction you're having, that's mast cell activation.

That's not allergy. So a lot of people, I understand the logic, think, oh, I just started eating this food and I'm reacting. I must be allergic to it.

Allergy takes longer to come on. And one of, again, the hallmarks of mast cell activation is that the mast cells don't stay activated in a uniform way, meaning they fluctuate.

And they fluctuate based on fluctuations of molotoxin levels in the body. So what will happen to someone will be, this is really weird. I can eat this particular food today and it doesn't bother me at all.

And I can eat the same food tomorrow and I'm going to react. And that reaction will often involve the release of histamine. So it could be itchiness or hives or shortness of breath.

or abdominal cramping or diarrhea or sweating or palpitations. If those things come on within minutes of eating, that is mast cell activation. And again, because mast cell activation is a very complicated process that involves the release of hundreds and hundreds of biochemical mediators into the body, It is another inflammatory process so that, again, cytokines are being released, and again, that means that every tissue or system of the body may have symptoms.

So if we want to add another label to those things that make complicated stories, mast cell activation is one of them. And so we need to identify those people who have it early on so we can take that layer of inflammation off of the system and not just help them to feel better, but that may be crucial for them to be able to respond properly to what we want to give them to hear what's causing this in the first place.

What are some considerations for treatment to help kind of put out that fire? Well, treatment has to be multifactorial. A lot of people will take one thing for mast cell activation and get frustrated because it doesn't work.

But because mast cells are making so many different biochemical mediators, you have to comment it from multiple directions to settle it down. That usually will include what we call H1 and H2 receptor blockers.

These are simply substances that will block the effect of histamine on our tissues because that's a major thing that's being released. It involves taking what are called mast cell stabilizers to stabilize the cell membrane of the mast cell so it's way less reactive.

It can involve taking DAO, for example. DAO is an abbreviation for diamine oxidase, which is an enzyme that we make that breaks down histamine. If we're not making enough of it, then the histamine will accumulate.

So taking that helps. And there's multiple other materials we can use. So examples of H1 receptor blockers are simple things, things people probably take all the time like Claritin, Allegra, Zyrtec.

H2 blockers are things like Pepsid or Zantac. Mass cell stabilizers include natural things like quercetin, peramine, perlacid extract, but it could also be medications like chromaline sodium, ketadiphen, So it depends on what the person has and what they're able to take.

You have to put together a mass cell program to get that piece of it under control. So I couldn't agree more to all-

star nutrients. And when we look at that, so when you mentioned quercetin and perilyl acetic extract and great immune modulators, is there a specific dosing or milligrams that you're targeting for a patient within the course of the day if they had that in?

Vagus Nerve, Limbic Retraining, and Mast Cell Activation

It depends on how sensitive they are. My very sensitive patients, which is a huge portion of my practice, they might start at a dose of ketatophin at 0.1 milligrams, whereas someone else would start at 1 milligram, meaning it's a much lower dose.

People might start if they have a strong constitution with quercetin at 500 milligrams, 30 minutes before each meal, but if you were really sensitive to it, you might take a different product like NeuroProtecLP, which is only 40 milligrams of quercetin, and do the same thing.

About 20% of patients can't take quercetin for a variety of reasons. People who have a COMT SNP have trouble with it. those people might go to perellicid extract as a dose.

So I don't have set doses of anything because that has to be individualized for each person depending on where they're coming to the table and how compromised they are.

And when you mentioned something such as a COMT SNP, how much genetic testing are you then doing with your patients? What kind of testing do you like to do?

And in terms of adding in for looking at mold as an example, to leverage in some of these azoles, are you looking at some of those predispositions within someone's genes to discern what to add in and not?

I do very little with it. As a general rule, the treatments that we use for SNPs come later in the course of treatment, not in the beginning. I'm a big fan of Bob Miller's tree of life process and the way he looks at SNPs and the way he figures that out.

But I've shared a bunch of patients with Bob, and when he tries to give SNPs to people who are struggling with mold or Lyme, The body goes, I'm not ready for that.

I've got much bigger problems on my plate right now. So I don't find that particularly helpful at this stage. Later on, when people go into the healing phase, then it becomes way more relevant.

But I don't find SNP information particularly helpful when my need is to get the mold out of the body. And if you're hitting a little bit harder with some of those azoles, do you find any sort of issues with microbiome when that happens or kind of impacting negatively the microbiome?

Not at all. I mean, what's messing up the biome is having the mold and candida there. So if you put azoles into the program, and that's just one, I do use them, but I'll also use a nice statin.

I'll use oral compounded amphotericin B. I mean, some people can't take azoles, so you have to have other options for them. But people… 100% of our patients have dysbiosis.

So not taking an antifungal is going to keep them stuck where they are. So from my perspective, A, the side effects of most of them like nystatin has very few side effects, oral amphotericin B has virtually no side effects.

So if we choose the right material, our patients can take that and benefit from it. And again, not taking it is my bigger concern, which is you're not going to get the patient well if they're not getting rid of the biggest chunk of both mold and Candida in their gut and sinus.

And when they're on some of these medications to align expectations with patients, do you often provide a timeframe of when they should see some sort of improvement or sometimes with some patients who are stuck or

living in that environment, how quickly or perhaps not quickly do they have to be on some of that long-term before they start to see improvement?

varies tremendously. Some people will start getting better when they start taking binders quickly. Not the general rule, though. I see it, but generally it takes a few months.

on binders to start to improve, and it generally takes even longer on antifungals. So my general rule of thumb is, and I'll tell this to every patient, it's going to take at least a year for you to get well, and you didn't hear the word least.

You have to prepare people for this is going to be a bit of a journey. If you can hang in there and be disciplined and do your best, you're going to get well.

I am promise it because I don't promise anything. I've personally helped four or five thousand people to get well, so I know you can do this. But you just have to hang in there.

I get a few impatient people who say, I'm doing what you said and it's been a month and I'm not better yet. They'll walk away and leave and go, whatever you're doing, whatever you're selling doesn't work.

And I try to prepare them by saying, this is not a quick fix. This is not going to go away quickly. You're going to have to hang in there. And some people just don't have the patience for it.

And I know we're coming up close to time here. Last question, which is kind of a curveball because we haven't really discussed this, but parasites in this whole representation here, what frequency or percentage of patients do you find, do parasites factor into this mix and how are you looking at?

You know, different practices see different percentages of that. I see very little. I have looked for it my whole life. I have, even when I, patients aren't making progress, I've done very aggressive parasite treatment programs and they have done very, very little for my patients.

So I don't see it. And I've got some colleagues who I respect deeply who see it a lot and treat it a lot and feel that they get benefit from it. So, you know, Patients choose us energetically in ways that I don't even begin to understand.

So whoever chooses me almost never has a parasite. When they choose my colleagues, they do see parasites. I work very closely with Jill Krister, who is a fabulous naturopath, and Jill sees it a lot.

And I don't. We are the energy we attract. Well, Dr. Neil Nathan, this has been absolutely wonderful. I have so many more questions that I would love to ask, but I want to be conscious about your time as well.

Closing Thoughts, Resources, and Where to Learn More

So I appreciate your generous work, everything that you put out there. Where can people learn more about you, your books, your mentorship, anything that you're doing?

Where can people follow you? Okay. Well, so one, I mentioned my book, The Sensitive Patient's Healing Guide. I'll encourage people to look at that. My book, Toxic, which has been a bestseller, is now, we just finished the second edition where I've added six new chapters and I updated all of the information on moldivorium, and I had Dr.

Krista write a whole section in the mold book, so I expanded that. That comes out next month, so we're pretty excited about that. Sorry, I don't know if you hear my dog barking in the back room, but she does that sometimes.

That's okay. You're an animal lover. That means you're a guy. I'm real excited about the second edition coming out. For those who are healthcare providers, we have a mentorship program for over 250 healthcare providers currently where we're teaching them about everything I'm talking about and how to do that.

We get comfortable with that. and how to do it better. So people are invited to do that. If they're interested, you can go to my website, which is just neilnathanmd.com and learn more about that.

And I encourage people to learn as much as they can about it because we have learned a lot about how to do this and we're getting better at it. Yeah, we're definitely getting much better.

And we see that within our patient population too, that the work we're doing and what you're been able to achieve has been nothing but remarkable. I mean, you're very much at the forefront and the leader in this space.

And I very much appreciate everything that you put forth and everything that you do to help us practitioners grow and learn is absolutely wonderful. Again, I appreciate you all the work that you've done.

I look forward to actually doing a round two here to keep tabs with kind of the research and your efforts. And this has been an absolute genuine pleasure and an honor and I appreciate your time.

Okay. Thank you for having me. Thank you so much. Bye for now. Okay. Thank you for tuning in to Doctor Talks. We hope today's episode has enlightened and inspired you on your path to optimal health.

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