Why Your Labs Are "Normal" But You Still Feel Sick l Dr. Clement Lee, NMD l Ep #413 Transcript

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Introduction and Episode Overview

Hi, I'm Natalie Nittem, your host. Welcome back. Chronic illness isn't usually loud. It's subtle, persistent and incredibly frustrating. In this episode, Dr.

Clement Lee explains why people can feel deeply unwell long before anything shows up on standard labs and how factors like limbic system stress, environmental toxins and unresolved inflammation quietly derail healing.

We dig into regenerative medicine, prolotherapy and why the nervous system may be the biggest lever most people never touch. This episode is brought to you by Mito Pure Gummies, Beam Minerals and Youth Daily by Young Goose, all with special offers just for you, our listeners.

Check out the show notes below for details and enjoy the shows. Dr. Clement Lee, welcome to the show. It is an absolute pleasure to finally be able to connect with you.

Yeah, it's likewise Natalie. This has been a long time coming. I'm so happy to be here. Take some coordination to make it happen. He just sticks in everything, yes.

A hundred percent, but it's always worth it in the end. So I wanted to kind of jump right in and help the audience learn a little bit about you. And I mean, lots of people know about.

I know this because in my membership community, I have all these people that tell me, Oh yeah, go to Dr. Clement Lee. Oh, yeah. Come up. Dr Kali saw you and blah, blah.

Blah. So clearly you're known, but for the people who don't know you, so when we strip away the titles and the credentials, who really are you at your core?

Like when did you first realize you were meant to be a healer, to work in this healing space? It's a good question. As a kid, I was a boy scout growing up and I became an Eagle Scout.

So it was kind of my nature to help people.

Dr. Clement Lee's Background and Path to Naturopathic Medicine

So it just kind of carried over with just what profession in life to be, because I think an undergrad is figuring out myself whether I wanted to go into medical profession of some sort.

At that time, I didn't even know about naturopathic medicine. I just knew about MDs, not even DOs. Not even chiropractors. And acupuncture, really. Those two classes of professions and then luckily I had a family friend who was a year ahead of me and she had already started attending naturopathic college and I looked into it.

It made a lot of sense because it married a bit of the Western well around with all of And as a kid growing up, I was, you know, more influenced by Chinese medicine.

I treated with Chinese Medicine. So that kind of was more of my background. And it just kind made sense that that's how I wanted to treat myself in the future, as well as my family and friends.

This is the route for me to take. That's kind led me on this route. Luckily, it vives with where the world is heading right now. We're trying to help the body heal most naturally as possible with probably the most effective tools that

we have available.

Were you ever tempted to go into traditional Chinese medicine? Because it's a very powerful modality. I mean, I know that in my experience, some of my most challenging things were dealt with really effectively by traditional Chinese medicine.

And so, A, do you weave that through what you do now? Or were you ever tempted just to jump whole hog into that? A little bit. In our actual naturopathic profession, we did have acupuncture training.

So in Arizona, you can get duly licensed to acupunture as well as natiopathic medicine, but in California you had to take a whole separate program to be able to do acu-puncture.

When I moved back to California, I actually did attempt to start an acupuncture program, but I realized I have so much more to offer in the naturopathic realm that I can still use the philosophy and the acupunture meridians in what we do, without having to spend all the extra education and board exams to be able to administer it.

Would you say that there was a defining moment or patient early in your career that changed your understanding of chronic disease? Because you chronic diseases really the direction you moved in that, you know, everybody kind of finds their sweet spot.

And I think it enables you to become better at what you do, and especially with something like chronic that's so complex. So was there a person or a moment when you're like, You know?

I Think chronic Disease, a lot of people running the other way. Sure. towards the fires. I think, well, I first started off with doing regenerative medicine in the realm of prolotherapy.

So that was in my third year of naturopathic school. We attended Hemel Hackett training for proliferative therapy. And the concept of Prolotherapy is just utilizing the body's own natural innate healing mechanisms by creating a mock injury with the injections.

So knowing that you can start healing old injuries, even myself, I had like an ACL strain in high school that really put me out. And so utilizing that for myself as well as other patients, these type of therapies can harness the own body's natural healing ability beyond what it can do when it's stuck in a stasis.

It expanded beyond where some people responded exceptionally well to prolotherapy and some didn't. What were those reasons? Why? So it was kind of an overall learning curve as I started actually practicing where we had some patients that would respond to the proliferative injections and then those did it.

We had brought in patients that had Lyme disease and mold. I didn't know that much at the time, but they responded, they also flared up, or they didn' t respond at all.

Or they had an Ehlers-Danlos where they were too stretchy and didn t really actually respond too much to the treatments. So I had to dive into what other reasons why they might not be healing.

And that's when I started going down the deep dive and learning how to treat Lymo, oncology. There's a lot of different things that are in the same wheelhouse of just helping the body heal itself.

Okay, so you've mentioned prolotherapy a bunch of times. Not everybody knows what that is. Do you maybe want to explain to the audience? Yeah, it's one of the oldest standing natural regenerative therapies.

It's almost 100 years old by now, but it basically involves using concentrated dextrose, which is a sugar molecule along with the local anesthetic, usually laticaine or procaine, and then diluted with some saline or water.

So basically that concentrated sugar, when you inject it into the joint, it actually irritates the tissue via the process of high osmolarity. It actually draws water out of the cells, which injures the cell, some of cells that take all the water

too quickly.

explode and die, but that initiates the whole healing cascade just like when your body naturally hurt itself somehow. So it wakes up old injuries where there may be tendon, ligament, connective tissue injuries, and so the body can start over wherever it left off.

It could be, you know, five, ten years ago of injuries or even the older, it just gets the by to know that there's an acute injury now. Yeah. It's interesting because what you're describing is when your body is healing an injury, it's something that I think a lot of people, we don't think about necessarily, is that it'll get you to a certain point once it has gotten to the point where it can manage.

Right? It is good enough. The inflammation is resolved, the active injury is calm enough As far as the body's concerned, it's done what it needs to do to live to fight another day.

Whereas you're like, well, wait, I want to be able to shoulder presses. I wanna be to all the things I used to able do with my shoulder. And to your body, now you are good enough.

We don't need to take it all away. Or you're now basically, you are basically bringing attention back to the injury. And so the procaine in that sense, is it there just to numb the injection?

Because it's not like neuro-therapy, right?

Prolotherapy and Regenerative Healing

Where it is an actual procain injection. It depends on how you're utilizing it. So if it's into the joint directly, prokane does have extra benefits. It has the anesthesia effect, it has a neural reset effect and it also has kind of a vasodilating effect.

If you are using it strictly for prolotherapy and you just primarily renumbering the area, If you're using the prokane on the way through the different structures of the fascia, you do get a bit of that neuro-therapy effect, and you can reset some of those scarring so the tissues get, again, more tension back to the area.

So it depends on how you it, because there's a version called neuroprolotherapy, which is much, much subcutaneous versions of a pro-kaine, sometimes just dextrose alone, diluted dexrose in this case.

But it's, yeah, kind of get two birds with one stone when you are using a procaine mixed with the dexterose. Yeah, because the neuro-therapy treatments I've received were pro-cain.

I mean, whether there was dextrose in there or not, I think was secondary, but it was really about the pro cane. And that's really, to your point, bringing attention back to the area, it's kind of interrupting a pathway with the nervous system, hoping that you'll get a nervous Right, right.

Sometimes the pain can be like a chronic misfiring of the neurons. So if you just inject procaine, even without the dextrose into the joints, you can reset the, uh, pain signals back.

Yeah. That's kind of a concept of neural therapy. Yeah, it's an interesting concept, right? Because what it says to people who may or may not realize this is that the nervous system can continue to signal an injury even if the actual physical injury is no longer there.

And that may be where you might have conventional imaging done by a conventional physician who says, I don't know what you're talking about this pain.

You look fine. Yeah. and the patient is like, dude, it's a 10. And the doctor's like it is all in your head, as if it was a bad thing, when actually it IS all their head.

It could be reset. Or locally into the tissues, but again, you can't really see it on the image or anything. Yeah, yeah, now really interesting. Okay, so let's go a little more into this chronic illness thing.

So what assumptions about chronic illnesses did you once believe that you now realize or you eventually realized were just completely wrong? When you first got into these, you're like, okay, chronic therapy is a thing, I mean, Chronic Illness.

But were there assumptions that… Yeah….you'd made that eventually you realized, oh, no, got that wrong. Well, actually, good thing for me, I never really had strong assumptions.

I was always open-minded to learning things. But I know in conventional medicine or even in our educational training for the basic sciences, when you're talking about autoimmune diseases, you learn about the disease-modifying medications, which are just typically band-aids, anti-inflammatories or immune suppressants.

And you're not really getting the full picture of being able to actually help the person heal beyond that. So you are learning how to manage those medications.

And that was part of our pharmacology training too. But luckily for me, that's not the end of the world. I mean, there's more that we can do beyond. As seeing our patients start to get better with some of just more basic principles of lifestyle, diet, and removing the obstacles of care, we could see that people can no longer have to rely on those medication.

I saw it as a student, we learned those things, but actually seeing it in real life really changed my belief that the body has a really powerful potential to heal.

It's amazing, you just need to support it however you can. Hey folks, I just wanted to throw a little message in here for those of you who are sending me all these incredible questions on social media or through YouTube or even on Spotify, wherever you're listening to the podcast.

I wish I could get back to each one of your personally, but unfortunately I can't and because I cannot, I created, about a couple of years ago now, I've created a membership community where I get to hang out with people just like you.

I do live weekly Q&As, almost weekly anyway. We also do have podcast guests come in to answer everybody's questions and do presentations, you get to interact live with those podcast guests.

We will sometimes do challenges with some of the partners. Like in 2026, we have a mitochondrial enhancement challenge coming up where we're going to be testing mitochondria function.

we are going be to testing people's deuterium levels. If you haven't heard about deutereum, We've got podcasts coming down the pipes on that. And then people will be invited to follow a personalized protocol and then retest their mitochondria on the other side.

We offer that in the membership community and we do it at incredible discounts that you just can't find anywhere else. So if you're interested in hanging out with me and other like-minded people, which actually happen to include some pretty awesome practitioners and even some previous podcast guests who've come and joined the community, then I invite you to check it out on my website natnidam.com slash the dash longevity dash community or just go to natnim.

com and look for the longevity community tab at the top of the page. Click on that and see if this is right for you. I would love to see you there. and we could make 2026 our best year ever together.

So once again, that's natnidham.com. Just look for the Longevity Community tab at the top of the page. Now let's get back to the show. You know, it's a recurring theme and it is a theme that I don't know the conventional medicine doesn't believe it.

I think it more a question of that is just not the focus and where the attention goes. It could be. I mean, I believe there's some like rheumatologists, some chronic disease, conventional doctors that realize that the body can, but they may be limited to in their immediate modalities or the type of labs that are offered in the conventional hospital systems.

They're not really geared toward addressing those things. And so, yeah, But then they also get up to the other side, and they start learning all the functional medicine routes and start to change their tool belt here.

Yeah, no, 100%. All right, so you describe chronic illness as something that the conventional system really generally is just chasing symptom after symptom.

They're going after symptoms. So in your experience, what do you think the biggest blind spot is in how the convention system approaches chronic illnesses?

I think the biggest blind spot is the immune system. They see it as defective in a certain way, where it's smart, it knows what it is trying to do, but there's these other threats that are getting in the way of it properly signaling itself.

So the whole conventional medicine is really invested heavily into different anti-inflammatory medications or immune modulating effects or basically immune suppressing effects really.

So they're just kind of quieting down the switch, which is getting the body to have this runaway inflammation to an extent. But the thing is, they are not addressing why that happened down to the cellular level to that extent, where it can actually have a pattern to be redone or a pathway or blueprint to rewire or fix itself to extent Yeah, no, 100%. And I think that by shutting down the immune system, you're now leaving the patient a sitting duck.

Like when you see the steroid use and stuff like that. You can get respiratory infections or at least low-grade lingering infections that you normally shouldn't have.

Yeah. That is a big deal. Well, and the immune system at this point is disabled, so it can't even do what it's supposed to do, right? I mean, is that the reason why people talk a lot about somebody has joint pain, they get one of the approaches of conventional medicine.

And not to say that there's never a use case for this, but one the approach is to inject a steroid into the joint, which we know The problem with that is it prevents the body's own healing systems from kicking in.

So you get a removal of pain, but you got a worsening down the road of the issue. I wonder if that's basically that whole approach that says, I just want to make you feel better now.

beyond the like, because there's also the insurance carriers that they are dictating the level of service that's allowed, as well as, you know, different people pulling the strings of the doctors, tools.

So there is also some limitations there. But yeah, I think that the whole concept is like they're trying to get a pretty much a quick fix, for the symptoms at the moment.

Well, and as you allude to it's standard of care, right? I mean, there's a book that you have to follow. Okay, let's move on.

Why Chronic Illness Becomes Hard to Heal

So when you meet a patient who's been like, they've been everywhere. They've tried everything. And they're dealing with fatigue, inflammation, auto-immunity, metabolic dysfunction.

What's your first stop here? What the first thing that is gonna give them the inclination that, oh, this is different. Nobody said that. You know, it's, uh, I think looking back, like I've learned this along the way, but I.

The biggest limitations that people need to start addressing would be their own mindset to an extent. Uh, because that also is a fundamentally part of that limbic system realm.

And then also the autonomic nervous system. But sometimes if you don't want to heal or you've already been told by so many doctors you can't heal, you may get that as a little bit of a roadblock.

There's a bit a placebo effect in that, but we know how powerful a possible effect can be, or no SIBO effect, in this case. So we've got to give them a lot of hope to an extent where that they can get them out of the funk.

But going down to more of science behind it, it's like the limbic system is a part of brain that houses memories of these emotions and traumas. but it actually dictates cellular healing and inflammatory moderation and so many different survival pathways.

But if it's stuck in a mode where it is chronically stressed, the body is going to be stuck there in the healing cascade, and it will not go into that more rest and digest, which then influences the autonomic nervous system as well, too.

I mean, it has two separate systems, but the automatic and limbic system are kind of the roadblocks to healing for most patients. if they've been in something pretty chronic.

And so how do you express that to a patient? You know, like if you know what I mean? Like you have someone in front of you who's been told You know, nothing's going to change.

We can't fix this. This is unfixable. Just deal with it. You'll be on painkillers, whatever the case is, or there's nothing wrong with you. Whatever that story is.

And somehow they've found it in themselves to say, okay, I'm going try one more thing. They're sitting in your office, across from you, and here you are not with a pill, not a magic something or other.

You're saying to them, you just need to believe, like just click your heels together and believe. It sounds a little hokey when you first hear it, yeah.

Well, there's multiple layers. I mean, I don't like to just leave it as all in your head or all on your nerves, but definitely. But I also like address maybe nutritional deficiencies that may not have been addressed, which are also influenced by the state of your limbic system and your nervous system.

Also, infections, toxins, et cetera, that are all playing a role. So if they've already addressed it with other functional medicine practitioners, we definitely want to keep that in mind.

But if you haven't yet addressed these aspects of kind of the more primal part of your body, then you should address that first because the body is smart.

It's into, you know, it's trying to gear towards survival wherever it can or thrive whenever it when the stress is out of kind of permeated itself and then now perceived stress is actually something that's on 24-7, then you're going to get just really, you know, stuck in this kind-of pathway, which leads into, like, there's actually more of a cellular model which is called the cell danger response which actually describes it in a cellular level which was more biochemical, uh, which is where we can actually give a little evidence, you know behind why physiologically this is going on, why they're stuck, Yeah, no, we're gonna talk about that too.

So are there specific, any patterns that you're seeing repeated in these people who are staying sick for years and yet their labs are normal? What are they?

Well, the pattern is they had some level of stress or stressors, either cumulative or maybe childhood or just an acute stress that they think they got rid of, but they maybe just are still stuck in that stress state but managing.

So that's pretty common, but then that leads to more downstream physiological effects like gut permeability or gut dysbiosis, which then opens up the door for more inflammation.

And unfortunately, maybe on the labs, there's not too much going on, like high cholesterol, moderately high blood sugar, and very little inflammation, But really the body is signaling that it's feeling so good.

Fatigue, brain fog, all these common symptoms are there. Yeah, what I'm hearing you say over and over again is this is the state of the nervous system has everything to do with both our ability to heal and how what's actually happening under the surface and, and we don't measure.

I mean, we can if we're looking, but we, you know, no conventional measure at all. Yeah, yeah, it's interesting. Do you think there's an overlook, like now moving back, before someone gets chronically ill, do you ever think that there is any kind of early warning sign that we're missing before things go chronic?

I think fatigue is definitely something, and it can be transient fatigue to an extent, where they're just tired one day and they don't know why, but then they get good sleep and then feel okay, the sleep doesn't catch up anymore to any extent.

I just think that's one thing. Or just finer aches and pains that you think will go away but they just keep coming back. Those are maybe early warning signs that things are not so good, or even brain fog to a certain extent Yeah, so those amorphous kind of things.

Well, and you know, what's tricky, of course, is as people are aging, they expect to be… It's all part of the aging they say, yeah. All that, right?

It was all a part aging. Oh, your joints are going to hurt. Yeah. And, you, know I think the big part The work that doctors like you do is that is resetting those expectations and saying you shouldn't be getting more tired.

I mean, maybe when you're 100, you'll need more sleep. Like, who knows? But, ironically, older people tend to get less sleep because they feel that they need less.

They're not sleeping 10 hours a night. And yet, I have a very good friend who's dealing with a lot of serious health issues right now. But I think one of his biggest issues is this guy doesn't sleep.

Yeah. Well, there's circadian rhythm issues as you get older too. That's another topic. The sleep is a big factor. If you're just not rested, you can sleep but you don't get rested then your body doesn' t get to heal very well.

Yeah. Yeah, well, I mean, it doesn't repair. You know, you're working at this intersection of naturopathic and functional medicine. So in your mind, what is root cause medicine really about?

Like, What does that mean? It was a big term for a while. Well, the thing is, if you put a body in an optimal environment with optimal nutrition, optimal social, we tend to thrive.

The body and the humans in those blue zones, they're in the right environments with the people. Maybe not the best lifestyle, but generally they have some really good things that allow them to live over a hundred years.

So if we take that kind of concept, and for our bodies, If we are not achieving where we want to be, there may be some things in the way, and for us is to figure out what those things are, that's where you can get to the root cause of why you aren't feeling your absolute best.

Some people, unfortunately, they never felt their absolute themselves on, which is why we got to start somewhere. But yeah, the reality is like, we just kind of figure out whether there's, you know, nutritional deficiencies or toxins or infections or emotional trauma or just some, some type of unknown kind thorn at the side of the bodies for healing.

And we just encourage them to get better, or we can use more advanced tools like peptides or stem cells and other

things to kind of push it along faster.

But innately, the body has typically what it needs to pretty far along the journey. Yeah, and one of the things you said is that chronic disease is like, it's rarely a single trigger, which I think is a little bit what you're saying here.

It's kind of a constellation, right? So what are the non-negotiable categories you evaluate in every patient? I'll give you some ideas here, there's inflammation burden, environmental toxins, mitochondrial impairment, things like immune, maybe immune resilience.

You know, is our hormones a big piece of the puzzle? And obviously we know nervous system dysregulation. Yeah, of course. I think it's all of above, but I the biggest issue right now is man-made are the toxins that we're exposed to.

I think that is definitely accelerating the level of chronic disease, even childhood diseases as well, too, because the kids that are born now, they have way more toxins than we did like 10, 20, 30 years ago.

So their bodies just can only handle so much. So I think that that's something we test on anybody who's willing to test for is the level of environmental chemicals, heavy metals, pesticides, even volt toxins, because those things unfortunately come from our immediate environments nowadays.

And so those are just big threats all the time. It's interesting you brought up kids. Do you work with children? I do, yeah. I have some patients that are children.

How often do you think that's being missed in kids? Actually, that is not the question I want to ask. The question is how do think it shows up in children attention and mood disorders as well as just their eating habits.

I mean, usually it starts off with the gut, you know, but the good is highly sensitive but it's also affected by these environmental toxins. And so you create this perfect storm where that leads to neural inflammation which for kids present as mood disorder.

or cognitive or behavioral issues, learning disabilities. This is a crazy question, and I don't know if you can answer it, but do you have a guess how much of the ADD, ADHD epidemic that we're seeing might have something to do with toxic overload?

I'd say a large percentage. Yeah. I mean, that was such an interesting study, right? Like you would almost love pediatrics to kind of take on toxin screening.

Yeah, the problem is there's just too many darn chemicals out there. We know that glyphosate is one, you have food colors, additives, even like big countries have actually banned food addatives or food colorings into their food chain and also glyphasate too.

So those are definitely starting points. Yeah, big ones, but then there's also like plastics and other herbicides, pesticides that are not banned yet.

Limbic System Stress and Nervous System Dysregulation

Those have a role to play. And then, unfortunately, mycotoxins are another big deal, which are these molds, chemicals that released by molds. So, yeah, they permeate our food chain.

A lot of different variables. Do you have any thoughts on, is there anything parents could be doing? I mean, so there's the obvious, don't consume processed foods.

Don't have red spittles. Yeah, right. But do you think, like, or is, there is anything you feel parents can be without getting too neurotic, but is there anything they could be doing to be helping their children's system to kind of move these talks about?

This is something that I recommend for most people nowadays. There's some level of a binding agent, where there's humic-vulvic minerals, activated charcoal, because kids can do humac- vulvic-minerals using liquid forms.

Like minerals or something? Yeah, that could one, or I use ion gut health. which has the fulvic minerals. So they have like a mild binding capacity or something even like zeolite.

They have the mild-binding capacity for some of these environmental toxins. Within the gut, they just have a way of getting excreted. If not, then they start accumulating in the body over time, which then starts getting to issues.

So having an outlet for these is what I'm going with. So like for adults and kids, you know, some type of thing to just be able to draw these chemicals out on a day to day basis would give you an edge.

Yeah, and I would think, you know, even things like make sure your children are pooping regularly. Yeah. Those are the basics too, yeah. Make sure they're peeing, poop, while sweating, all the natural excruciating activities.

Like moving the bodies. If you think about it, in all of the things in adults, like a stagnant system, someone who's just sitting for 10 hours a day, if your kid is addicted to screens and not moving much and getting outside to play, these seem like such basic, like what are you talking about things and yet because they're part of the human condition that we're getting away from because of technology now yeah we now have to go back and start paying attention to these crazy things that shouldn't even be a question yeah i know it's kind of like it should should be done but it just like no one does it anymore i ii know okay let's get back to our talk sorry we got a little off track with the kids but i just thought that was really interesting right yeah of course You talk to so many parents who are at their wits end and so bewildered.

And I think the last thing I'll say on the topic is recognizing that the mother, unfortunately, we do pass a toxic burden to our babies, unwittingly. It's a reason why if you're gonna do any kind of detox support, you wanna do it ahead of time, before you get pregnant.

While you are pregnant, do not detox. Don't mobilize anymore, yes. No more mobilizing. You're stuck with what you got and then on the other side when you're done nursing.

Okay. So now let's ask the question that I think is one of the big confounders in complex medicine or complex case medicine is, what do you start with?

What do fix first? How do know where to begin? That's a good question. This is where we have more individualized care, just chatting with the patients, seeing where their roadblocks might have come from along the way.

Um, this is why we can introduce functional, you know, lab testing to kind of figure out for them. Well, sometimes they need a little validation that they actually have something going on.

But just really finding out that there's maybe some dysbiosis, some overgrowth of, you know, unwanted bacteria, fungal parasites, sometimes bio persistence, and then showing them their level of toxins as well.

that gives you kind of a snapshot of what they might be dealing with. And then we do more in-depth blood testing to look at the hormone profiles, thyroid, inflammatory, more deeper inflammatory pathways, and then sometimes nutritional levels for them just to see if they're adequate or not.

And then putting all that information together, we can kind of get, you know, a good game plan of the right either nutraceuticals or some supplements, herbs to support that pathway.

But I often bring up the limbic system and nervous system area in the beginning, because these are things that they can be working on the background as we try to figure all this out.

Yeah. Well, and as you said earlier, somebody who's stuck in fight or flight, their body's not functioning properly to begin with. There was sort of half the nutrients that we're giving them too.

Like, you know, if you learn the hard way, we can put people on 10, 20 supplements, but if they're stuck on a fight-or-flight mode, then it's going to like not, it doesn't go right.

Yeah, unfortunately. Well, for our longevity audience, who of which, you know, is largest part of our audience here, what do you think the earliest interventions are that people should be doing now that will make the biggest impact down the road?

Are there a couple of big things to be Well, from the beginning is optimizing the vagus or the autonomic nervous system includes sympathetic and the Vegas, but also the limbic system.

Just make sure that there's no like, uh, skeletons left in the closet or just, you know, requiring a little bit of attention in your brain. Cause that'll drive hormonal pathways or immune pathways just to less efficient areas.

Um, and then environmental toxin load. Like I think, Most people take enough supplements that have probably some good stuff in there, but the toxins that you may have accumulated since conception until now, they may still be there to an extent, and that just is going to interfere with your body's optimal trajectory.

So those are the big things I recommend for most longevity patients of mine, too, is looking at their toxin load. Yeah, I think it's becoming the biggest topic right now.

Even thinking about, you know, if you've got heavy metal issues, they will occupy receptors that will prevent those supplements from helping your body do what you're doing the supplements for in the first place.

Not to mention they create oxidative stress all the time because they're very reactive. So you're just creating more inflammation, even low grade inflammation that your body is trying to combat.

If you can remove these little thorns at your side, then the body really has a easier chance of doing what it's supposed to do. We talked about the fulvic and humic, which will naturally bind things, but do you think people should be out of the gate testing for heavy metals?

Once a year. My opinion is, yeah, I mean, the thing is like you try to avoid it from, you know, maybe limiting your sushi intake or other things. But I, mean the air itself, if you live in a big city, probably going to get some lead, some arsenic, stuff just kind of floating in.

And, our bodies are a good reservoir for some of these things, so you may accumulate faster than you're limiting. So at this point, If you, know where you are at, and you actually have some more objective data to work with, otherwise you just suspecting it and, You may not actually, have any symptoms until later, much later on in life.

too late. So what method of testing do you think is the best? Because there's hair mineral analysis that people will use, but that gives you one picture, it doesn't give you the full picture.

What do think the testing is for that? Well, clinically, we've been using the provoked urine testing for probably over 15 years. That's why I was trained in.

But we use a random sample of urine, which is like your first morning urine which just tells you more of your acute exposures because most of the metals will be hiding away in your tissues.

They're not going to be released into your urine or your blood at the time. But then afterwards, we give you a chelating agent, which is usually a DMSA, but sometimes it can be EDTA or DMPS, depending on what we use.

But the DMCA is standardized capsules. They have an affinity for a large amount of the metals in your system. So after you take them, they're actually actively withdrawing the metal out into the periphery.

And then typically, you pee or poop, sweat them out. Then we collect the urine, and which gives you more standardized approximation of what might be hiding away in the tissues.

And from there, you kind of get a better gauge of how much your burden might be. Okay, that's interesting. So because I remember I was working with, I delivered a talk for Sunlight and an infrared sauna company and they were talking, we talked about a specific challenge test that they did and the measured the toxins and heavy metals and toxins in people's sweat.

And one thing that this study noticed was that different metals, and toxins get released in different It's interesting to me that it releases certain ones, some is going to go into the urine, and some's going get released into a stool.

In a perfect world, you'd want to be doing them all. There's just no one test that can test them. This is where we say this is a really good one if you just had to pick one.

But again, it's more accessible. That's why we like to do it. Yeah. And I would think that, I mean, again, infrared sauna, if people have access to it, is a really nice kind of ongoing, how to reduce the load.

Right, right. Because at least you can sweat it out, you know, more so than your body can do on its own. So now you often talk about inflammation loops, or to get stuck.

What are they, and how do people get in them, Okay, starting off with the joint pain realm. That's just a little more straightforward. If you've ever sprained your ankle, it heals, but it doesn't always heal super well.

And then you might have a lot of pain here and there. and if you try to use it, you may respray it again. Well, unfortunately, that is an inflammatory loop where you get the first phase of healing, which does start to grow new tissue, creates a bit of scar tissue but doesn' resolve to the original tissue that you had before the injury.

sometimes.

Environmental Toxins, Kids, and Toxic Burden

If you're lucky, it does, but usually it doesn't. So then, unfortunately, every time you try to use it, you re-damaging the scar tissue, which creates more inflammation, sub-threshold inflammation that doesn t really promote tissue growth to the extent that you want it.

Then that cycles with just more swelling, more information and non-healing and still a dysfunctional joint. So this is where something like pro-therapy or any of the regenerative injections nowadays are really helpful, but now we see it even in the realm of peptides.

They're exceptionally well for healing, breaking that threshold of healing where the BPC, GHK, or TB4, they have a huge potential just to kind of let the body break through and start to get to the healing side of things.

That's the first, at least more tangible one you can see. The other one systemically is you just have low-grade inflammation. It may show up as high CRP or maybe it's slightly elevated white blood cells or just occasional body aches.

But really, that's a sign that the body is trying to do something but not really attending to it all the way. So for those, like my thought process is to go at maybe the root causes, which are typically the emotions, toxins or infections.

You know, one of those few or a combination of, those would be those driving factors for the why the body's not resolving the inflammation. Yeah. Okay, so then the next question is, what do you think are the most surprising sources of inflammation that your patients are always like, you're kidding me.

It's coming from there. Is there a hidden place, is there place that inflammation hides or a driver of information that people are shocked when they find out?

Mold, mold is a big driver. Yeah. It's kind of the missing link for a lot of patients with chronic disease, even chronic Lyme patients. If they don't address the mold aspect of it, the body will be kind-of stuck in a less than optimal

inflammatory state.

So I think that unfortunately, it's stuck because most of houses are built in the way that is more likely to grow mold. And you know, you want to think there's no mold in house, but unfortunately it just may creep up in there, or maybe from old houses that you lived before, to present sometimes.

So I think that that's an area that is often overlooked that I find as a root cause for a lot of patients' inflammation. Yeah, I mean, since political times, it's been something we've been battling with too.

But nowadays, if you recognize that as the thing, you can actually do something about it. That's the first step. Well, and I think the other thing is what you just said, it triggers other latent infections you may have in the system.

So many people have Lyme dormant in system, a mold exposure or re-exposure could be the thing that challenges the immune system enough for that Lyne to now say, oh, this would be a good time for me to make an appearance.

Right, right. Yeah. Unfortunately, the mold is like the perfect thing in our ecosystem to kind of recycle the human body back to the earth when you're ready for it.

You know, if you are already dead, that's no problem. But if your live, it's something that is going constantly against all your mechanisms of survival.

So yeah, there is a bit of a problem if don't address that. Part of the reason why I really advocate for people having really good, at a baseline, having a couple of very good air treatment systems in their house, because I think it can give you, again, it give some buffer to a certain degree, and then if you've got a massive issue, then it's gonna have to get dealt with.

It's one of most vexing issues I'm seeing pop up these days is people are really, at their wits end, trying to figure out how to find the right people to diagnose the mold, find them all, then remediating it as a whole.

You know, it's easy when you've had blood, right? It's another thing when, you're looking for something you can't smell or you don't know where it might be.

So, okay. Well, we'll, I'll have to do a, whole other podcast on that someday. So you work extensively with metabolic dysfunction. How does metabolic health interact with chronic inflammation and ultimately biological aging?

Because that's what we're here. That's all the intersections of these things. Well, basically, metabolic function is just energy utilization. So when you go into these chronic states, your energy kind of sucks, you know, if you feel that way, but your energies not very efficient, which then can lead to slow metabolism, weight gain and with the weight more inflammation and that cycle keeps kind persisting.

So. At the cellular level, there's signals that may drive the body to be less efficient, and that might be an actual protective mechanism. But oftentimes, if you're just trying to flood the buddy with supplements, nutrients that are just geared at putting more energy, they may backfire if we don't recognize that the cells are trying do something to protect itself by shutting down the energy pathways to an extent.

So that's where that cell danger thing goes into, which we can talk about in a moment here. Well, I mean, you know, You brought it up a couple of times.

I want to kind of get in generative medicine and the fancy stuff. But before we do that, this is I think cell danger response and cast histamine. Like all that whole family of mass is very much next to the nervous system.

It's another one of those things that is not necessarily acknowledged in the conventional system, why people are being told I don't know what you're talking about because you look fine.

You're fine and meanwhile you've got a person crawling around trying to find you. Well, I mean, this is very applicable for those who are the sickest but also the healthiest because sometimes when you are super healthy, you might run into an illness that gets you on to the other side, but how do you get back?

So if you understand how to address the cell danger and response, if it gets stuck there somehow, then you can restore the body to the full potential that you need to.

Or if you're already starting at the poor end, you could get out of there and finally get to longevity end. So it's very applicable for anybody. Yeah, so I guess if want me to start into the cell danger response.

Well, and you know, it was funny because when I was coaching people years ago, I remember a woman saying to me, oh yes, my doctor tells me I'm in cell-danger response and I had never heard of such a thing.

And I'm looking at her going, you are nuts. I don't know what's wrong with you, but I am pretty sure being crazy is one of the things that is wrong. But as it turns out, whoever that physician was, was way ahead of the game.

He recognized that everything that this woman did, and I believe knowing what I know now, the state of her nervous system had a lot to do with what was going on at a secondary level.

Maybe you want to talk a little bit about that relationship. that the nervous system dysregulation affects people at a cellular level, which is what, you know, it's the thing we have to get our heads around so that we can handle it.

Well, this is a good way to bring this in. So in terms of the, I guess the nerve system is the communication pathway for all your organs, but also to the cells.

And so when you have this fight or flight response, its kind of gathering resources to be able to run away from the bear at the moment in time. But at the same time, it's like a seesaw where you suppress the rest and digest or the parasympathetic side of the nervous system.

So the parasympathy side is really associated with rest, digest, repair, regenerate, sleep. And so you lose that ability to control that side But down to the cellular level, the cells then recognize that these signals are there for survival and they gear up to protect themselves from these threats.

And the problem is even if the threats are gone, depending on what happens, sometimes the cell might be stuck in that mode and it may be struck indefinitely.

So these are the people that we see that are reactive to pretty much every food or supplement that they come in contact to, or they have the histamine response, and things that you normally imagine would help them don't really help because they're just in that kind of frozen state or stuck state.

So to kind go into that, I guess we'll talk about the different stages of cell danger response. It kind helps to paint the picture. There's three stages, CDR 1, 2, 3. First state is inflammation and defense.

So when you get that immediate threat, let's say an infection coming in, the cells will signal themselves, and actually it's kind of mediated a lot through the mitochondria.

They release ATP out and that signals other cells to kind go into this defensive mode. What it also does is stiffens the cell membrane, so it makes it less permeable for things to go in and it down-regulates energy because it can use energy for other things later on, but they may not So this is where the fatigue may set in.

And then it creates a lot of these reactive oxygen species or inflammatory cytokines to help defend. So you're actually creating a lots of inflammation as a way to maybe clean up these infections or other threats that the body perceives.

Right. So in a perfect world, it resolves. It may neutralize infections and resolvs. And then you go into stage two,

which is you start to repair tissue, generate a little more energy.

You start creating a bit scarring just to help immediately fix the tissues. But some people can get stuck there, where you end up creating more fibrosis or more scar tissue or keloids and things like that.

That's not always a good thing to be stuck in stage 2. But stage three, if you can complete stage two, stage is more that anti-inflammatory regenerative pathway.

So you are basically quenching a lot of the free radicals at that point, the cell membrane starts to get soft again, and basically you generate back to normal levels of ATP and energy into the system.

And that usually gets you out of this whole chronic cascade. Usually, if you just sprained an ankle, you have a normal healing response, and you go through stage one, two, three in a matter of days, then you'll be out of that.

But some people don't. And this is why we've got to figure out why these might be the case, whether it's coming from your emotions or traumas that may be driving more that stage in one or lingering infections or, unfortunately, chronic mold exposure or other toxins that might still be hanging out in the system.

So it's kind of a dance. I mean, some people, they may be okay until that major threat comes in the way. Like, for example, COVID, this was a really big situation.

People were fine. They may have had a little bit of line. It may not have mold, not knowing. Just getting by and they're feeling all right. And all of the sudden they get COVID and it turns into long COVID.

So this is kind that whole concept that can explain it to an extent where the body is now stuck in this low energy state indefinitely until they can get out of it somehow.

Yeah, they just can't break free. And I mean, you know, it keeps coming back to the same things, right? The nervous system regulates and the toxin exposure, whether it's moles, heavy metals, whatever the case may be, the traumas that, I think we're just getting to point where people are recognizing that you can just bury your stuff at some point.

It's gonna come back bite you. So you may as well dig it up and clear it out. Yeah, but now let's talk a little bit some of these advanced treatments that you rely a lot on in chronic disease.

So obviously, and this is, I think, a message that everybody really, people are starting to get again, because it's being repeated by people like you.

And that is that these next things that we're going to talk about next are almost the shiny toys of this discussion.

Testing for Heavy Metals and Hidden Inflammation

the foundational pieces that you can't get around, and none of these might help, but they won't help as much if you don't address the stuff that's a pain to address, the trauma, nervous system, that stuff.

But now let us speak about the top of the pyramid, kind of a shiny new choice, which conversely, I've had physicians say to me, These tools have allowed me to reduce the amount of time it takes me move a patient from really sick to well.

In some cases, it cuts it in half. Right. And so let's talk a little bit about what those are. I'm going to give you a list and then I'd love you to kind of flip through it and say, oh, I like this.

Okay. We have peptide protocols, we have IV nutrient therapy, which probably can really raise the bar when someone's very depleted and you don't have time for vitamins.

Cellular support therapies, people are going be sitting there wondering, what are those? hormone optimization, a lot of people talking about that, and then mitochondrial restoration, which I wanna talk about the restoration not the activation, because if the engine's broke, gunning it's not gonna help.

Maybe you wanna poke around in those a little bit. Yeah. So I guess in the realm of peptides, I mean, they're very helpful for I'd say majority of the patients, cause they just, you know, right cell signaling that can get the body to manage inflammation, promote a level of healing.

I've seen it backfire too and patients are stuck in cell danger one where they actually feel worse from using any of the peptides we think that would normally help.

Let me interrupt you on that because with let's say for example with BPC157 which universally is like the beloved peptide, right? It's like, it's so multifaceted.

It affects so many different aspects. And I'm sure you've seen this now. There's a subset of people that BPC 157 makes them crazy. Yeah. Have you connected the dots?

Nobody's given me an answer on this. I'm expecting that there is a cell danger, MCAS, toxin. Yeah, I think there potentially like a shift in serotonin, which can be a driver for maybe more stress for some patients.

My other inkling too is like the BPC does have some antimicrobial, especially antiviral effects. So you might be knocking down some viral load and then the patients are responding to the aftermath that can occur from that.

So it's possible, I mean, especially if the brain's already kind of a little bit inflamed, like you're just adding a bit more icing to the cake that can drive them into more of the neuroinflammation pathway.

So I think I've seen a couple times that that happened. It probably varies, I guess, and I think that's what's happening. It's probably, but have you seen those people where, where I mean I had one guy who's like I'll use BPC because of Lysa and the other thing, But my dog hides under the bed the entire time because I just get mad.

Yeah, that I've seen depression occur. I have seen from insomnia occurs. Definitely seen some interesting, yeah. And so you seem that it really depends on the person, like it's different reasons for different people.

Yeah, I would imagine so. I mean, there's more that we didn't look into genetics and other things too. But in terms of like, you know, their load, they may have viruses, parasites, toxins, but that's the things that, we don't really know at the moment in time, until we explore that.

That can change their symptom presentation, because after you clear some of those things, people can then start taking it and feel fine, get all the full benefits that they're supposed to get.

It's shocking, right? What are your thoughts on, there's a peptide, a little peptides that doesn't get a lot of attention, but I'm curious about your thought and whether it's something you use quite a bit.

It is called LL37. And it is an anti-microbial, so it antiviral antibacterial. But I've seen it can really bite back if people don't use it properly. So one of the proposed mechanisms is it cleaves the cell membrane, which then exposes it to your immune system to get in there.

So oftentimes when people use that, they can actually get definitely a Herxheimer response where they feel worse rather than better. That's usually the immune systems actually waking up to clean up all the debris or the toxins in the cells itself might be also permeating tissues which just creates another cascade of inflammation beyond that.

I've definitely seen that occur with the LL-37. So that happens. I mean, it's kind of like taking an antibiotic too. When you take an antibody, you kill the bacteria and then the vector dies off and you deal with the leftover materials.

So it is kind the same concept there. Right. And so is the answer not to use it or do you think the answers just to us

it in very tiny amounts? Well, more of a holistic approach is make sure that the body is capable of clearing up the mess before you start killing things.

Make sure your nervous system is regulated because your detox pathways heavily influenced by your parasympathetic nervous system. But also, you know, make sure you're peeing, pooing, sweating, and you may have some different supplements to support your liver, colon, gallbladder, kidneys, lymphatics, so that stuff has a way of getting on out.

This or a sauna might be helpful too, just getting stuff out, Nice. Okay, IV nutrient therapy, where is your… We use that a lot. I mean, I would say it works to give you immediate nutrition to the cells, especially a lotta people when they have leaky gut, they aren't absorbing half the oral supplements that they're taking.

So there's a wide variety of nutrient therapies. There's old school Myers, which is vitamin C, B vitamins, minerals, nowadays they add amino acids, and now there is NAD and other…

IV therapies that we use of botanicals, curcumin, phosphatidylcholine, methylene blue, the list goes on. There's a lot of cool things that can be done in the IV therapy realm.

You mentioned hydrogen by IV. Is that something you're just starting with? Is it new? I haven't talked about hydrogen for a long time, but never by ID.

In the past month, this is actually pretty new for us. We've got the first machine from Japan that is making medical-grade hydrogen that can be used as an infusion.

infuses hydrogen gas into your saline or whatever solution you want and it disperses it so that you can get the hydrogen in the water coming back in IV.

I find it very helpful too. It's kind of like a moderator for inflammation to an extent or an accentuator for certain things where I've seen a normal nutrient bag adding the hydrogens in there get more benefits.

You actually have more energy, more cognitive benefits with that. or if you're doing things that like, for example, LL-30 or anything that's killing things, it minimizes that die-off reaction to an extent so far.

So it's pretty neat, like it helps things and it minimize some of the Herxheimer reactions, although I've seen on a couple patients that it actually creates a little bit of herx too, so I haven't yet kind of gone to the mechanism why that may be happening.

But some people respond that way to hydrogen too, even though they're taking tablets. They don't feel that good initially. So there may be some balancing effects that are going on.

Tyler LeBaron, who's the guy that you'll see talking about hydrogen a lot, always used to say, and I don' know if he still says this, but he used refer to a hydrogen as a selective antioxidant.

in the sense that it's not that antioxidant you have to worry about overdoing things. It just seems to, and I think it has to do with its binding power.

And so it'll somehow go after the worst of the worse, but leave the other pieces behind, which is a really unsophisticated way of saying it. Yeah, and I've seen that too.

And I think there's a lot more to explore with this because the IV administration just drives it in faster. So I seen it actually accelerate some of our normal treatments, but also flare up certain patients where we normally don't see the flare-up on.

It's more exploring in this case. Yeah, no kidding. A lot of big learning here again. Yeah. Well, I mean, and he always used to say also that if you take your hydrogen with your supplements, it'll make the most of them.

So I think you get some better absorption because you're kind of quenching the inflammation that would normally prevent you from absorbing them and also, you know, get those redox pathways that are meant to be running without the suppression on those as well.

I see I, think it's a very nice balancing act. It's interesting the machine came from Japan. I mean, definitely Japan, countries like Japan are way ahead of the curve.

Yeah. They already have them in hospitals and ambulances. And they use it all the time. Exactly. Okay. So then what about those cellular support therapies?

What are those? So we have laser, which we haven't intravenous laser through Weber laser. So they allows us to a fiber optic cable in there and then we can get different spectrums of light.

Oh, when you see people with that. Yeah. Yeah, so that can be in a cellular support therapy in the sense that you're using the light to activate different aspects of the mitochondrial respiration chain so you can generate more ATP or moderate inflammation that way.

So down the cellular level, the like kind of gets in there rather easily. We often pair it with other nutraceuticals or other IV therapies, such as phosphatidylcholine, which really makes up the majority of the cell and mitochondrial membrane.

So when you add it to the light, it actually enhances the absorption and the effect into the cells too. So we actually pair them all together. But a lot of, I guess, people in the chronic illness realm may be familiar with something called the PK protocol, which is using phosphatidylcholine, sodium phenylbutyrate, and leukoborane, basically gives you the lot materials to repair your cell membranes in a short amount of time.

But that's a way of just rebuilding the structure around the cell membrane.

Cell Danger Response and Mast Cell Reactivity

Because going back to cell danger one, when the membranes are rigid, they can also deal with a lot of inflammation. So if you have a lots of toxins, emotions, and a a of reactive species, you literally punch holes in the cells and you got leaky cell walls too.

Right. By having those type of materials, You can actually physically repair the structures around cell membrane. And so sometimes IVs will be a faster way to getting that in.

The other one, which I think you're familiar with is fatty 15. Fatty 15, it makes up probably like 1% of the cell membrane, maybe up to 5%. And then the mitochondrial membrane probably 2% to 3%. So less than 5% percent of cell membranes inside and around the cells.

But those sometimes are the missing links. If you don't have that fat, you still can have leaky cell walls, which allows toxins, infections, and these signaling molecules to threaten the cell all the time.

So I've seen that as a game changer sometimes to get the body out of cell danger and repair the cells. The cells are less stressed, then they can go on to the next stage.

Yeah. So you're kind of talking here about mitochondrial restoration that we were going to get to. Both. Yeah, at the same time. It's because, yeah, the cells- You're restoring.

To cell and mitochondria kind go hand in hand because if the cell's seen threat, mitochondrion are the first responders to that environment. Okay. I mean, I should have asked this when you were talking about peptides earlier.

Do you think that they're overrated in any way? No, no, they are not over rated. Well, it depends. Some people who

are just peptide people and just say it's the cure-all, probably not, but definitely helps a ton.

But then you've got to know when to use it and why. You're just not following a cookie cutter plan. You can accentuate the peptides by doing these other things or knowing where the roadblocks are, you can definitely like slam or allow the peptides to run full force depending on where you're at.

So I find them very helpful. I mean, they do move the needle faster than what the body can do on its own. Definitely. Okay. For someone who's chasing longevity, but they're not sick, which of the regenerative tools do you think really move to needle and which don't?

Well, detox- Like what could people do against longevity? Yeah, that's a good question. I mean, the peptides are super helpful. For me, it's just getting all the elements that would impair your optimal health to get out of the picture.

So if you have the toxins, definitely detox support, clear that out. One of things that I've seen move the needle a lot are in the realm of those stem cell exosome growth factors.

those really help rejuvenate the body beyond the peptides themselves. So I think if people have the finances for those, those would be kind of right now the holy grail in terms of turning back the clock.

Yeah, no, for sure. I think that. Yeah. No, I mean, look, there's, a lot of really, and it just seems like every day there is a new thing, right? The total plasma exchange is becoming really big.

the plasmapheresis is another one, like there's all these different, and they all seem to be vying for attention. Do you think it's going to pan out? Like, do you, because I think replacing someone's albumin is a very aggressive strategy.

And it seems to me that filtering the blood and the plasma might be less aggressive, but give you as much Yes, I think, yeah, right now what's available in the U. S.

is therapeutic plasma exchange. It's been in a hospital system for so long, so it's more accessible. These newer filter devices are starting to get FDA approval, probably sometime next year we'll see.

There's two major players that I know of. One is Inosferesis, and then the other one will be Clarify. So they are using a filtration system to So you can get your plasma coming back, but then it's cleared out of majority of the plastics, mold toxins, inflammatory milieu and all the different things without having to throw away your plasmas.

So I think I'll be exploring that. I will be offering the therapy of plasma exchange initially, But as soon as those get FDA approval, we'll bring them in as well too.

Cause I'm coming over for that! Yeah, there's something about the plot the TPE and I know people are all about it right now I just I Just feel like you need to clear the space in your life for it because you do come out the other side a little You know, it's very draining.

You're very training because your throwing away, you know majority of your plasma at the moment in time and just so you lose minerals and vitamins as well as your white your your Immune cells, yeah, not immune cells but your immune signaling.

So you kind of start a little bit fresh, but if you're not super healthy to begin with, you might feel wiped out for days, weeks on and after the procedure.

The other filtration devices are definitely a way to go. Um, but going back to your longevity, you know, it's excited, everything you, those things are helpful, especially if you can afford them because the toxic load that we are exposed to is kind of unfortunate outpace our ability to excrete them at some point.

And so, we're going to be brewing on our own. crap soon. So these tools are super helpful. But if you're already on

the sick side, I mean, your detox pathways aren't that great to begin with.

You need something to move the needle faster. It's very applicable to different parties or pretty much anybody at this point. Yeah, no, it's, I mean, because I think it could be the ultimate hack.

We've been talking about hacks all these years on this ultimate hacks. Yeah. Taking out the trash that allows the body to go back to working. So, okay, so for the people that, we're going to back a little bit to an earlier conversation.

You talk about people being mysteriously inflamed and their bodies are overprotecting. And so we are back into this whole MCAS cellular alarm system world.

And, you know, when are you able to say, oh, this is a cell danger response that's just overreacting? Like, is there a signal for you that like, Oh yeah, This is overactive cell dangerous, which is not, I mean, it has to happen.

Is there is sign for that says that that is what's going on? Most of the time is when people develop these histamine type of reactions. But the problem is, histamines can present in every organ of a body, and so it basically manifests into different symptoms for some people.

More obvious ones are reactivities to foods that they probably didn't have reactions before, or skin rashes, headaches, joint pains. come out of nowhere.

Those are signs that the body is trying to defend itself by releasing histamine or other chemicals that are tied in with the cell's defensive mechanisms.

Right. So that's when you're like, okay, no, this isn't gut dysbiosis. This is like this is something else. Yeah. I mean, if it's got this biosis, you treat it, either evict the pathogenic pathogens and put the right bacteria, they get better.

Those people that get in the short amount of time, like in a month or two, versus the people who have done all the gut repair and take tons of probiotics and they're still stuck in their rut, there's something going on.

We've talked about stress a lot today. Did we talk about how the nervous system actually primes mast cells and really drives this cell danger response?

Do you want to maybe talk a little bit about that? Is there a mechanism where that chronic stress being stuck in fight or flight is actually getting relayed down to the cell?

Uh, yeah. Okay. So the, it kind of goes back to a level of vagal inhibition because the thing is for the body to get the all clear that things are good is usually when the parasympathetic function is firing normally.

And if you're stuck in this chronic fight or flight response, Typically, what we call is a sympathetic dominant state. So your body's more easily agitated.

You can't calm down. you can sleep, rest. And that drives more of this inflammatory pathway. But the way for the body to resolve itself is to know that it's all clear.

This is where the vagus nerve may be frozen, stuck, inhibited, or injured. Then it is hard to tell the So the cells are picking that up to an extent where then inflammation is still running away and the cell are still like stealing energy, you know, or preventing the energy to be made just to survive to the next day.

Right. So what's your favorite vagus nerve strategy? Like what is your favourite? Quite a few, yeah. Well, the neural therapy, I would say it gives you more instant results if anything, where we do the ganglia injections.

Yeah, it's a really quick fix for a lot of people. But yeah, injecting Procane into the Vagus and also the Stellate, just other ganglia to give a fast break in the signal, so it can reboot itself.

I've seen tremendous benefits that way. Not everybody is comfortable doing those injections, or not everybody can find someone to do them. So the next best thing are the vagal stimulators.

There's lot these devices on the market now that they actually do help. They don't reset the nervous system pathways, but they just tell the vagus nerve to fire more, which can lift you a little bit out to kind of down-regulate the sympathetic a bit.

But it's only good when you're using it, because when we stop using, if you don t correct those other reasons why the sympathetic tone might be high, then you might eventually stay in that sympathetic state again.

So it does require more consistent usage.

Advanced Therapies: Peptides, IVs, and Cellular Support

And then a couple neat things that I've come across more recently. are various supplements. Well, one of them, actually they're peptides. There's a peptide, I'm familiar with Lactium.

Nope. You haven't heard of that one? Okay. So Laktium is a tenometer acid sequence derived from milk protein. It's actually naturally occurring. Okay, yeah.

Yeah, so there's, a lot of companies, supplement companies that actually make a product with lactium in there. But there is one product I like that it's called Serenitin Plus, if I throw a name.

What's interesting about that is it works on the same receptors, GABA-A receptors that Xanax hits. So you can actually kind of down-regulate the stress response, anxiety, and sometimes sleep with that.

One of the other proposed mechanisms is that it can knock the cortisol or other stress hormones off the receptors in the brain. It has more essentially acting effect where you could actually knock stress hormone off of brain so that the body can start over again.

Because if you're stuck in a state where the stress hormones are released and they're sitting on the brain, then you are going to be in that chronically stressed state until they can get released.

And sometimes they never get release before they are before released again. So you can kind of break this vicious feedback loop by having enough of these receptors freed that the body feels safe again, so I pair it off with the injections when people, you know, to have the injections, have them start taking it, or some people who don't get to do the injection to start taken it.

And over time, they can start to feel a little bit more relief in their overall symptom picture and feel more relaxed. Because once you can sleep, then you need to digest, and all the other stuff goes with it." It sounds a bit like an inflammatory loop that we were talking about earlier, only in this case with.

So what's the name of the supplement? The supplement name is called Serenitin Plus, but the actual ingredient is Yeah. I feel like I've seen it. Maybe Health Gevity uses it in a formula.

They don't, I should tell them to put it there though. Michael would be all over it, kidding me. Yeah, they should combine it because the other one I'd been using is the Pepti Sleep one, which is in there, Sleep Geivity.

Pepti Sleep is derived from Bryce brown rice, I think, so it's a peptide naturally occurring from there. This one has a slightly different mechanism. It actually blocks the feedback loop for cortisol on the adrenals directly.

So it works on a lower level of the body. If you work on lactium on brain and you're working on adenals, you can kind of down-regulate cortisol to an extent so you could sleep.

Then it starts to break the cycle of distress that way. Cool. Yeah, cool. All right. So, just to mean intolerance, often

people are down to like a food.

In your practice, what really breaks that? So a lot of things I've seen. Definitely if we can do any type of the autonomic nervous system reset work that's helpful.

I see an limbic system treatments or the limbic system retraining work help a lot too. It takes time though, that does take time. And then the other things I've seen pretty interestingly affect is the eviction of parasites from the gut and mold from And so if you remove those, you know, fending agents, they're creating less reaction to the microflora and then you can eventually get good bacteria.

The other one that I see kind of interestingly is fecal transplants. You know if get somebody else's healthy poop, typically those people are already eating whatever they want without any reactions and you get the instructions from those bacteria coming into your gut ecosystem.

They kind re-educate your system to match the diversity so that you foods again so that does like those things help a lot yeah it's pretty extreme but i would but you know i'm not a fan of people just buying it but I think when you're when when You're working with somebody there's there are a few ways I mean there is the live poop and then there s actually a newer product which is a plugin for another name called Thenobiotic which Is the freeze-dried poop so you re not worried about somebody s poop overpopulating you that s actual poop yeah yeah oh it s another way of doing it Okay.

All right. A couple more questions and we're done. So for the longevity audience, like coming back to that, you know, those people want to really live a long time.

These are people who feel mostly fine, but they're still under… I mean, look, I don't think anybody can say they are not under some degree of chronic low grade stress.

What are the early warning signs that they should watch out for that their system is getting overloaded? Like their mast cells or immune system slipping into a hyper reactive state?

Well, food intolerances could be one, like they're just eating the same thing they were eating and all of a sudden they just don't feel as good or they look a little rumbling and they are good.

I mean, there's also just the cognitive issues. Again, you can have an occasional fatigue that you just can't relate to anything. So for those, I means there are just minor slowdowns in your normal high level performance.

uh yeah or labs you know and sometimes the labs will pick it up before it shows up by the physical uh effects too so so you're just kind of feeling off like make sure you feeling is not a good sign yeah so for for those individuals you mentioned earlier like Toxin testing, find out what their toxin loads are.

The other thing I wanted to bring up is just doing occasional parasite cleanses too. I mean, those kind of come in the environment because the food chain, unfortunately, does carry parasites.

And if you don't do anything about them, they just hang out with you for long, for the long haul. That's something that could be a roadblock into the optimal performance as well.

I've used cell core products. I use prescriptive agents like Ivermectin, Alenia, Mavendazole. So there's a lot. It just depends on what type of parasites you have.

There's some stool testing that can kind of pick it up, but energetic testing is sometimes the way to more, I say definitively diagnose it. But again, parasites are a tricky beast because they don't show up in the stool all the time.

So it's a game. It is a little bit of game, yeah. But again, there's some herbs that you could like, for example, Cellcore, you can take them every full moon or every few full moons just as a way to kind of clean house, just occasionally.

They're good broad spectrum ones that'll work for most average healthy people. Okay. All right. Let's look at where medicine is going. We're going to close up.

Last two questions. You imagine medicine 10 years from now. What's one innovation you believe will radically change how we prevent or treat chronic disease?

Right now is AI, it's quite helpful. It could basically do a lot of the brain thinking if you know how to use it and work with you on kind of figuring out the best treatment options for an individual.

So I think that is definitely going to change the way doctors practice. It'll make some of the cookie cutter doctors more effective, but may put some doctors out of business too, depending on how it goes.

So that's one. And then what I've been seeing right now and what we've using is CBD. Oh, right. We're going to talk about that. So I say that CBD, it's coming and it is still here.

It got legalized, which is a big step in allowing it to be used as medicine. But in the clinical realm, this is where I've seen a bit change in patient populations is with the use of intravenous CBD.

Yeah, that's wild. When you mentioned that earlier. And so with the intravenous CBD, what's it doing? Is that part of the nervous system reset? It's doing pretty much all of above.

So what makes this formulation unique is that it's water soluble. because most of the cannabis is fat-celled and it doesn't really penetrate. And the other thing is the molecule size is down to the pico size, so extremely tiny.

So it's a thousand times smaller than nano. It can get in pretty much all the nooks and crannies of a body, regulating all of things it is supposed to regulate.

But going into why it so helpful is, the endocannabinoid system, if you're familiar with, and some of your listeners may be, but just to kind of keep it simple, it's a communication pathway, cell messages that regulate a lot of things, including inflammation, pain, sleep, immune system, even oncology aspects.

So it is basically something that your body should be producing to regulate the cycles of pain and stress, all the above. When it gets dysregulated, usually because of chronic stress or unfortunate age, you lose out on those communication molecules to an extent where you're not then controlling all your different pathways.

So then you may develop insomnia, pain, fatigue, all these other things, or the inability to actually fight off general viral bacterial infections. The cool thing about this is within intravenous infusion, you're flooding your body with all these usable cell molecules that facilitate some level of restoration in your communication pathways.

But more immediately, this is where we're really seeing some crazy stuff, is that it has a direct antibacterial, antifungal effect. So any pathogens that might have been hiding, they actually start to get neutralized.

And then it regulates the immune response. So you actually can mount up a proper fever-like response, which is the body's cleanup mode, and starting to clear that out.

And you also get a bit of mood stabilization. You get actually restoration on some of the autonomic functions. There's a longer-term anti-inflammatory effect that happens after the treatment.

It's pretty interesting. This is, I'd say, the forefront of medicine.

Longevity Tools, CBD, and the Future of Medicine

That's really interesting. And is it a one and done, or are you finding people need a series, again, it depends? It's usually a serious. If you're relatively healthy, you can do it once in a while.

So for the longevity side of things, people can it alone. Actually, we've seen when you do alongside of NAD, normally when we get NDIVs, if you go too fast, like chest palpitations and you feel poorly.

Well, the interesting thing is the anti-inflammatory or the antioxidant effects of the different molecules of CBD buffer that. So you can do a higher dose of NAD without feeling poorly in that same combination.

It's pretty neat. You can see you get more NHD, it allows NDD to recycle longer. That's actually pretty interesting how the CBD may help in the longevity aspect.

There's other kind of other downstream effects that it enhances stem cell signaling or stem-cell differentiation. So it's pretty neat. Like you can amplify a lot of the already longevity therapies you're doing with the help of CBD.

And is there any THC in there? This one has no THCs. No psychoactive effect. So in the formula that we're using, there's actually a few formulas, but this one formula, we were actually working with the company to get FDA approvals eventually on the treatment of infections, fibromyalgia.

But the formula that we're using is called a CBD broad spectrum, which has CBD, CBG, CBDA, CBGA, CVC, and CBN. So it has no THC. You don't really get the psychoactive component, although some of those other cannabinoids, you do get a little bit of a relaxed sensation, a chill sensation.

But definitely no crazy response. No munchies either. Yeah. Okay. Well, that was fascinating. That was great little guys. I almost forgot about the CBD.

And I'm so glad you brought that up. Now, what's the longevity science you're most excited about and the area you think might be overhyped right now? testing, the testing for longevity.

That's where there's a lot of tests on the market and they all have their pluses and minuses. There's one test that I kind of am trending towards that.

I like which is the generation labs testing. Yeah. It's a neat one because it's looking more as instead of just your length of telomeres or the actual biological age that you have, it differentiates the rates of aging of your organ systems.

So you can kind of get a better picture of which one's aging faster or slower. For us, we can actually dive into those areas of concern. Let's say, for example, your lungs are aging or let us know there's something going on, whether it is respiratory infection that's untreated or mold, or you just came over a bout of flu or cold, that something's still lingering in the lungs.

And so it gives us more usable tools to address it. Now with the peptide bioregulators, you can be very specific on the organ itself. Or in this case, any hidden infections or toxins that might be troubling those organs, we can work with some information.

Yeah, it gives you an area of focus anyway. Okay, so last, last question. So what would be the very first thing you would change if you could redesign the entire healthcare system to actually prevent chronic disease?

Teaching people about their nervous systems. Honestly, I think just understanding how much of a role chronic stress and nervous system dysfunction leads to the whole cascade of events.

I would say it's teaching that like, From childhood, you know, starting with ways of coping with stress, vagal stimulation, exercises, stuff to be able to down regulate whatever stress that comes their way because we are not immune to stress and stress will still be part of the human.

know experiment but uh it's just knowing that you can do that ahead of time and this is where like the doctors have a role unfortunately with limited time it would be difficult but if it is taught in the normal uh you know education experience then people will have less disease.

I mean then the next thing is diet too you, know diet's a whole other beast. If there was one easy free strategy you could share with people now that would help them to mitigate the negative impact of stress on them.

What would it be? It could be breath work, it could anything. That would be easy for someone to start today. Breath work but just first step is like awareness.

Is this being in tune with your emotions, knowing where they may have come from, and just understanding that impact on the body. So if you know that that's the case, once you can actually identify it and possibly even name it, it changes your relationship with it.

And also the other thing that goes with it is a bit of forgiveness too. Because holding onto these emotions are really linked to chronic disease states like cancer and autoimmune diseases.

So the emotions, the first thing is recognizing it, and the next step is finding a way to let go. Those are free, but not easy. And it requires a little bit work.

But just first up is acknowledging that they exist as a part of your whole symptom presentation. that would free up a little bit more physical bandwidth or biochemical bandwidth for the body to start the healing process.

I love it. Clement, this has been great. Thank you so much for your time today. Yes, you're welcome. Yeah, well, I'm thrilled that you did. So why don't we just let people know where they can find you and where can follow you, all the things.

All right. My social media is not super active at the moment, but Instagram is at DrClementLee. And then our office website is opthealthwellness.com. Those are the main areas that people can buy me.

Yeah. We're working on trying to put some social content in the future, Thank you so much again. It's been a pleasure. Have a spectacular day. Thanks, Nat.

Same to you.