



#655 High-Dose Melatonin's Role In Cellular Energy, Detox & Healthy Aging | John Lieurance, ND, DC

Dr. Wendy Myers

Welcome to the Myers Detox Podcast. I'm Dr. Wendy Myers, and on this show, we talk about everything related to heavy metal and chemical toxicity, the health issues caused by these toxins, how to detox them, and more advanced topics on health than you'll hear on other shows. We talk about biohacking and all kinds of things. Today, we have Dr. John Lieurance on the show, and this is such a good podcast. You have to listen to this.

We talk about how important melatonin is to make energy in your body, detox your body, how it detoxes heavy metals out of the brain, and how you can take very high doses of it, which I've been doing, and why melatonin drops off a cliff once you're 40 and the health consequences of that. You've got to listen to this show just for that alone. But we also talk about enlarged prostate, what causes it, and what to do about it.

More so, we talk about craniosacral therapy and some really exciting things that Dr. Lieurance is doing with that. There are a lot of interesting topics that you will learn about. He's been around for over 30 years and has a lot of experience and written

many books on a range of topics. You can learn more about his work at advancedrejuvenation.us and the supplement line that he consults on at mitozen.com. Dr. John, thanks so much for coming on the show.

Dr. John Lieurance

Thank you, Wendy. I'm glad to be here.

Dr. Wendy Myers

I was happy to meet you in person. I just spotted you across the room at Dave Asprey's Beyond Biohacking conference and ran over, introduced myself, and did a little interview with you, so I'm glad you're now on the podcast.

Dr. John Lieurance

Amazing how that works out. It was a great show as well.

Dr. Wendy Myers

It was fun. 5,000 people. It's really fun to connect and see people in person, and I saw a lot of people who have been on the podcast and met them in person. Why don't you tell us a little about yourself, how you got into health, your why and your purpose?

Dr. John Lieurance

I admittedly got into chiropractic medicine initially, and then got my naturopathic degree. But initially it looked like a great job, to be honest with you. I was probably the typical kid going through high school thinking, "What am I going to be when I grow up? And I remember being so stressed out over that. I had a grandfather who was an entrepreneur, and I lived with him for a little bit in St. Pete here in Florida while my parents were going through a divorce. So that inspired me.

I knew I wanted to do something substantial in my life. Then I got into a car accident, and my mother recommended I go to her chiropractor. I just had such a great experience at that office and found them to be so professional. It really resonated with me because it was rooted in science. It was a clinic focused on treating the spine and treating pain. It really appealed to me, so I set my sails to become a chiropractor. I just can't imagine doing anything else.

I think if somebody were to come to our clinic and spend half a day, this doesn't really represent what you would traditionally see as a chiropractic clinic. Maybe more of a naturopathic clinic. But I have two other medical doctors that I share the practice with.

Dr. Wendy Myers

And what's the name of your practice?

Dr. John Lieurance

Advanced Rejuvenation.

Dr. Wendy Myers

You're in Sarasota, Florida?

Dr. John Lieurance

We've got about 5,000 square feet on the clinical side, and we have an event center. We had an event this week where we were talking about our prostate research. We're actually running some research through our nonprofit, and I'm really excited about treating the root cause. I like to find areas in medicine that have unmet needs, and where there's misdirection in the general consensus, whether in alternative or conventional medicine. What I found with the prostate is that there's this

classification of benign prostatic hypertrophy that really ignores that there's even a root cause. It affects so many men.

Dr. Wendy Myers

It affects millions of men and is the second leading cause of death in men from cancer after lung cancer. It's a big deal.

Dr. John Lieurance

I started having all these friends dealing with prostate issues. Some of them have undergone procedures where they were left with difficulties maintaining or even getting an erection, urination problems or not holding their urine. It can become quite a problem if it's untreated, and it can be even more of a problem if it's not treated.

I started looking at it, and about 10 years ago I did an internship with Frank Shallenberger, who's considered kind of the father of ozone. He's one of the first functional doctors, a medical doctor. He shared with me this direct ozone injection into the prostate, saying, "Yeah, it's simple," and showed me how to do it. So I came back, and we started doing that with our current staff.

We wanted to understand a bit deeper on what was driving the inflammation in the prostate. So we found MicroGen, a lab out of Orlando doing next-generation sequencing on semen. They're able to isolate through DNA sequencing up to 60,000 different microbes. The problem that happened prior to this new advancement in diagnostics is that they would see a problem with the prostate. They could see swelling, but historically they'd either diagnose it as benign prostatic hypertrophy or prostatitis. Prostatitis is when there's a known infectious agent; benign prostatic hypertrophy is considered to be a non-infectious process. However, one thing that's

well-established is that it seems to be aggravated by androgenic substances like testosterone and DHT.

I went down some rabbit holes in the research and found published papers discussing that there seems to be inflammation within benign prostatic hypertrophy that's probably due to some infectious agent. We started doing the MicroGen testing, and found that just about every man had a prostate infection.

Dr. Wendy Myers

That's not surprising. That's what I understood too; that prostate swelling can be from protozoa, parasites or other types of infections, and that needs to be addressed. But of course, a lot of medical doctors are not looking at it that way, so it just goes untreated.

Dr. John Lieurance

Exactly. There's a lot of stuff that can cause infections in the area, including fungus. It's a very poorly circulated area. The prostate has poor circulation, and there's some interesting evidence where things improve nitric oxide. Even some of the erectile dysfunction medicines are used to micro dose these things and are efficient because poor circulation is the core problem as we get older.

Leonardo da Vinci said it best when he dissected a man in his 90s. The thing that came out of it was that it seemed to be the blood vessels. The vascular system is the problem with aging. That is exactly what more science is coming out saying. Nitric oxide solves that problem by dilating those blood vessels and getting that microcirculation going. A lot of people just don't exercise, especially as they get older. Not a good idea.

Dr. Wendy Myers

Tell us what you're doing that you're excited about.

Dr. John Lieurance

I'm really excited about blood flow restriction training, and I've been experimenting with a peptide called vesigen along with blood flow restriction training. It's one of the only peptides I could find that seems to have some evidence that would help support improving vascularization. Your listeners are probably new to me and don't know my story, but I did have quite a massive couple of years that led to an amputation of my leg. I got to experience going to the hospital for extended periods, getting a bone infection after the amputation, being on IV antibiotics for a long time, having absolutely nothing left after all of that, and building myself back from what felt like ground zero.

When I look back on my life, I see health issues. I had mold and Lyme history around 2008 for many years after that. What led to my understanding of health and taking care of my patients at a deeper level was getting more into root cause and understanding new and exciting ways to support the mitochondria. All of these things have come together, even more so after this last stretch.

Dr. Wendy Myers

Tell us about that, because a lot of people struggle with fatigue. It's the number one complaint people have, and a lot of people don't understand that their mitochondria make their body's energy, and many habits people have kill off their mitochondria. Can you give us some basics and some of the science you have about how to improve your energy and grow the number of mitochondria you have?

Dr. John Lieurance

Excellent place to start. Think about 250 billion years ago, a eukaryotic cell incorporated a prokaryotic cell, and complex life started. What was present at that point was melatonin. If it wasn't for melatonin being present back all those billions of years ago, this symbiotic relationship between the tiny bacteria we call mitochondria and our cells would never have come to be. So we have these tiny little organisms in our body, and they take oxygen, glucose and make something called ATP. But they can also take photons, units of light.

There are four main steps within the mitochondria that make energy, and the last step is called cytochrome c. Cyto refers to the cell, chrome refers to light. So we can either use electrons or we can use photons to make energy. That's relevant because we'll be talking about photobiomodulation and light therapy and how important that can be to improve mitochondrial function and to heal the body.

Let's go back to the prokaryotic and eukaryotic cells, complex life, and melatonin. Why is it so important that melatonin was there in the very beginning? Melatonin is produced by every mitochondria because when we make energy, there's oxidation. For instance, if you burn wood, you get smoke, and the smoke is toxic. If you burn something in a closed environment, you're going to suffocate. A cell is going to have the same problem if it can't outgas or clear out that oxidation. It needs to neutralize and detoxify. Specifically, it needs to neutralize the oxidation. Then there are by-products from making energy that need to be cleared and detoxed away, and nutrients need to be brought in. I say, bring in the groceries, take out the garbage. This is circulation.

Dr. Wendy Myers

People aren't accounting for the endogenous toxins that they're making. They don't acknowledge that they need to detox, or may not be doing that well and need assistance via supplements.

Dr. John Lieurance

So there are endogenous toxins we make, and then exogenous, which are ones we get from our environment, like heavy metals, mold, and mycotoxins, among others. Toxicity is the biggest headwind to our mitochondria performing at their very best. We want our mitochondria performing excellently, and in order to do that, we need good terrain. It means that the environment in and around the cell and the mitochondria is really important.

One of the things that can cause mitochondria to become dysfunctional is when it shuts down. We have to make energy from something called fermentation. With fermentation, you get about 10% of the energy that you would otherwise get. This shift can happen if you don't have enough melatonin and/or if you have too many cytokines. What are cytokines? Those are from inflammation. How do we get inflammation? Toxicity and infections. It's at the core of all diseases.

We are organisms dealing with this outside world versus our inside world, and where those outside and inside worlds meet is where we have the biggest opportunity for the introduction of toxins. We could be auto-intoxicating ourselves just because we're not taking proper care of our microbiome, gut, oral cavity, which includes the jaw bone. A lot of people can get cavitations in their jaws. It's not just root canals, cavities, and gum disease. There are also these cavities and pockets that can occur. A lot of biologic natural dentists have a large focus on wisdom teeth for this reason.

Dr. Wendy Myers

I had my wisdom teeth removed when I was a teenager. How about you?

Dr. John Lieurance

I had only the uppers removed when I was 19 and had cavitations, which I had to address. These are areas where we get infection that then outgasses toxins, endotoxins, or lipopolysaccharides. Endotoxins and lipopolysaccharides are good science-y words to know, because that's what the toxin from infections are, and it is at the core of so many diseases. Take a journey on Google Scholar and look at lipopolysaccharides and see how connected they are to cardiovascular disease, gut diseases, and neurological diseases. It's well established that these are root caused through microbiome issues in the gut.

Dr. Wendy Myers

I like that Dr. Steven Gundry refers to them as LPS (little pieces of shit) causing all kinds of havoc in the body.

Dr. John Lieurance

One of the things that a lot of people aren't talking about enough, and I find myself very obsessed with this, is the nasal passage. I've written a couple of books. My latest book is "Airways," where we talk about expanding the nasal airway and how it's collapsed a lot of us in industrial living. The ultra-processed foods we eat and the stresses of living in modern culture cause the facial bones to collapse.

When the facial bones collapse, our teeth crowd. Kids who are mouth breathers, their tongue isn't holding their whole cranial structure out, the maxillary bones collapse in, and the airways become restricted. These bones can actually change shape and crowd out their airways. This can be reversed through using endonasal balloon

manipulations, and some orthodontists will use palate expansion. It can be really powerful for so many different conditions.

In fact, when you were on hold (I noticed you were waiting and I had the sound and camera off). I was just finishing up with a patient here. This is my treatment room. I was working with a lady who came from somewhere in the middle of the country for dizziness and balance disorders. I see a lot of that, jaw and TMJ conditions, chronic headaches, movement disorders, people with different conditions, even Parkinson's disease.

You think about the glymphatic system and how much that's tied to the detox of the brain. It's primarily driven by deep sleep. So we want good quality deep sleep. There seems to be better effectiveness sleeping on your side for the cranial glymphatic system. But also, we don't think about these deep connective tissues called the dura. In Latin, dura mater means tough mother. The dura mater becomes the whites of your eyes. It's rooted in your tongue. It's wrapped around all the different areas of your brain and all the way down around your spinal cord. What happens is you get adhesions to this dural complex, and nobody's talking about this. It is such a root cause for so many different conditions. That's why I wrote a book on it.

Dr. Wendy Myers

Is it fascial tissue?

Dr. John Lieurance

The dura is a connective tissue. It's like fascia, but it's around the brain. They call it the mother because the brain is the central you; it's protecting you like a mother.

Ads 23:02

Now a word for one of our sponsors. So I'm a huge, huge fan of Tru Energy Skincare.

This is a bioenergetic skincare line that I've been using for almost two years now, and it's what I use exclusively. It's so good. They have a new product out called the Bio Adaptive Hydration Oil. This is really, really key for protecting your skin from dry winter weather because when you have cold weather plus wind, plus indoor heating, that's gonna equal dry, irritated skin. So hydration is really, really key to protect your skin barrier and, you know, preserve your skin.

Why does this matter? It's because dehydrated skin can look dull, tight, and have more fine lines and wrinkles. Supporting your skin during winter helps it stay resilient and healthy. As I mentioned, I love Tru Energy Skincare, and they have this bio-adaptive formulation designed to boost hydration and nourish the skin. It's a bioactive, nourishing skin oil, and so it's infused with frequencies. There are dozens and dozens of frequencies imprinted on their energy-optimized blue bead that's in all of their products. It's imprinted, actually, with not hundreds, but thousands of frequencies to support cellular repair, improve collagen production, and increase regeneration of your skin.

This is what I'm using at 53 to get the best skin that I can possibly get. This is one of the secret weapons that I personally use. This bio-adaptive hydration oil uses nutrient-rich skin-supportive and clean ingredients as well. All you do is add one to two drops to your face cream or Tru Energy products like their serums or their lotion, and it just increases that hydration. I also use it 'cause I do face yoga every night. I use hydration oil. I put it all over my skin, and massage, and I'll do guha and other things. It's part of my nightly routine. So there are a lot of different uses for it, including increasing the hydration and the effectiveness of the products you already have. Try it for yourself. Go to trytruenergy.com/wendy5

Dr. Wendy Myers

I've read that people who develop dementia, part of that is due to their neck coming forward and cutting off the lymphatic system, where over years, their brains are not draining toxins effectively, and they eventually develop dementia. Part of that is that fascia and connective tissue, their posture doing that forward head movement. That's one of the first signs that people are going to develop dementia.

Dr. John Lieurance

What I see a lot is cervical dystonia, and I see it commonly in almost all vestibular cases, and other cases that come in. What happens is the eyes and the inner ear, the vestibular system in the semicircular canals, are picking up information about head rotation, velocity, and position. The eyes take information from that inner ear so that your eyes can counter the movement of your head and body as it moves through space, keeping the eyes level. Otherwise, the world starts to look like a shaky camera.

We've all watched those movies where the camera's moving all over the place as an effect, and that's what it feels like when these systems aren't calibrating. I sometimes say the eyes, the inner ear, and the neck muscles are all talking to each other, but sometimes the eye's speaking Spanish, the inner ear's speaking Russian, the neck's speaking Chinese, and nobody knows what's going on.

I'm a functional neurologist, so in the spirit of chiropractic, we go on and learn skill sets using neuroplasticity to heal people's brains. Then I use the naturopathic side and we have medical procedures such as hyperbaric oxygen. We blend all that together. We do specific eye tests, that is, smooth pursuit where you're following a target, saccades which are fast eye movements, and gaze fixation, which is the ability to keep your eye in a fixed position. These become problematic for people and spill into the neck as noise, and the neck becomes tight, and the jaw becomes tight, all the fascia and everything else just becomes tight. This causes a lot of problems in

the lymphatic system. Those are the types of patients who are going to have head forward posture. I don't believe it's so much that the head going forward is causing restriction at the base of the neck. I think it's because the typical patient who develops head forward posture also has a lot of these other associated problems.

Dr. Wendy Myers

That's really interesting. I've been focusing more on fascia lately. I've been researching it, looking at fascia releasing movements, and doing more yoga because I think a lot of people pay attention to physical fitness but have been totally clueless about their fascia, the need to release it, and keep it open and gliding. It's a very important communication system in our body.

Dr. John Lieurance

For sure. I got interested in the idea that acupuncture is based on the fascia system many years ago. Something I find really fascinating. Are you familiar with acupuncture according to Voll, or electrodermal screening?

Dr. Wendy Myers

I've done electro acupuncture before.

Dr. John Lieurance

Reinhold Voll was a German. Back in the '40s and '50s in Germany, there was such brilliance and breakthroughs happening. Voll basically wanted to understand acupuncture and measure it. What they found is that everything has frequencies. For instance, a banana has a certain frequency. In order to know what substances are, they refract light through them and there's a certain printout, a signature that everything has based on how light interacts with it. Mass spectrometry is what they call it. If you wanted to buy echinacea and wanted to test whether it was truly

echinacea, that's what you'd do. It's mind-blowing to think that it's how light's going through it, and it's the frequency that this substance is emitting that makes it uniquely that substance.

What Reinhold Voll found is that when they used frequencies that patients had known allergies to, it would come out the other side of the body differently than if they didn't have the allergy. So this way of testing food allergies was the first thing that came up with what they call acupuncture according to Voll, However, the science of electrodermal screening has blown up. The device we use is called an ASYRA, and I can look at parasites, viruses, organ systems, dental issues, emotional factors. I can check the biocompatibility of various substances. At the end of the day, you might know you want to put somebody on an anti-parasitic or antibacterial substance. Then again, you have all these different options to choose from. Which is going to be best for the patient and at what dosage? Those are things that can be answered using bio-meridian stress testing with these different devices, which are amazing.

Dr. Wendy Myers

I know we're getting off track here, but my listeners, we talk a lot about frequencies. I also talk about bioenergetic software that I use, Spooky2 Rife. Further, I use Bioresonance and NES, e4l.com, which are frequency-based softwares to test various things. Have you ever heard of the Firefly?

Dr. John Lieurance

Yes, we use the Firefly here as well, and they combine the F-Scan with their Rife frequency device that allows you to therapeutically treat with photons. There's a big emphasis on the microbiome with this device. Are you familiar with the F-Scan?

Dr. Wendy Myers

I'm not. But it's interesting because I feel like the way conventional medicine is doing things with infections is very old school. It does blood tests for patients, who must wait for days or weeks for the results. Then the patient is given an antibiotic that they will eventually develop resistance to. The way of the future is using frequency-based scans, sending frequencies on plasma light to your body to address infections and only target that infection without touching anything else. This technology was developed 100 years ago. In the '20s and '30s and '40s, all these amazing discoveries were made and are still being used today, but not enough people know about them. That's why I have people like you on the show.

Dr. John Lieurance

I think it's important to blend a lot of things together clinically. Something is just coming to my head. There's a friend of mine named Dr. Doolittle. Whenever I'm around her I say, "This is Dr. Doolittle. I'm Dr. Doalot." But I'm not about overwhelming the patient. I do think that in today's world, it's just not as easy to fix people as it used to be. Even 30 years ago when I first started practicing, you'd find a couple things going on with someone, do a few adjustments, some acupuncture. But these days it's a lot different because there are so many complex stressors that we just are not designed for and haven't adapted to withstand. It results in clinicians becoming a little savvier, utilizing not only lifestyle recommendations, but detox has to be a big part. In that regard, thank you for all the work you're doing educating the public on detoxification. You're doing a great job. I've been listening to your podcast for a long time.

Dr. Wendy Myers

Thank you. I've learned a lot listening to your podcast too. Anybody listening to this, subscribe. It's really important. I had a light bulb go off about 15 years ago when I started detoxing, and it was like, "Why haven't I heard about this before? Why did I think this didn't apply to me?" And I think that's the reason I started this show. Detox used to be considered kind of fringe and foo-foo. The whole area was tree-hugger, granola-eating, hippie territory. And then Dave Asprey comes along with the word biohacking. I remember when he first came on the scene, I had an assistant at the clinic and I'd been trying to inspire her to do some things to get healthy. One day I said, "Hey, would you like to do some biohacking?" And the eyes just opened up. It was a completely different word.

Dr. John Lieurance

It's a very good word. I love how Dave calls himself the godfather of biohacking. But it does matter how things are language and the perception of doing natural medicine, like detox, which is what got us talking about this. Because you don't see the toxins. Now we've got better ways to test. I talk about taking care of your doorways, nasal hygiene, oral hygiene, gut microbiome and all these major doorways in the body. Mitochondria is affected negatively if we don't take care of lipopolysaccharides. Those endotoxins then overwhelm the body and auto-intoxicate it. When your mitochondria are already trying to deal with a stressor and adapt to something like infection, you don't want to cut off its life force. That's the last thing you want to do.

We all remember COVID. The cytokine storm, when patients went to the hospital having a cytokine storm, that's what killed them. But that's actually the most common way our elderly pass; they get an infection like pneumonia, and then sepsis, and that's it. What's really interesting is that if you administer melatonin because of

what's actually happening with the cell danger response (and this is where we get science-y, so get out your notebook) in that mitochondria, you have the Warburg effect. What that means is that when cytokines and inflammation reach a certain level, there's a change in the energy. The mitochondria says, "I can't work like this anymore." Like an employee with a dirty desk in a bad work environment who says, "I can't work like this." The mitochondria shuts down, so you now have 90% less energy. But you have a battle to fight. That's what happens with the cytokine storm. But if you give melatonin, the mitochondria is naturally making melatonin to quench that cytokine storm. Studies show that if you give it exogenously, it can take that energy and put it back into the mitochondria. It basically jumpstarts the mitochondria back to life.

Think about this. When we were young, we were producing a lot of melatonin. As you get older, if you look at a chart, anybody can pull up a chart, melatonin and age. When you hit 40, it just drops off a cliff, and when you get to your 60s and 70s, it's really low. So we're making a lot less melatonin, but we're biohacking. We'll wear the blue-blocking glasses and do all these things to try and maximize our melatonin. But no matter how much blue-blocking glasses you wear, you're still not producing the melatonin.

It's not just your pineal. We're not talking about just sleep. We're talking about your ability to fight cancer and infections. Your gut microbiome is on a circadian rhythm, and it's tied to melatonin... 400 times more melatonin is secreted by the lining of your gut, and it triggers microbiome swarming. Look it up. That microbiome swarming is not only stimulating the good bacteria to proliferate, but it's also inhibiting the bad bacteria. It's mind-blowing to think that this magical substance (I call it the miracle molecule) has such a profound and positive impact on the gut.

When I was working on my original book, which is about six or seven years ago now, *Melatonin Miracle Molecule*, it's on Amazon, I found a lot of studies on gut conditions, ulcerative colitis, and Crohn's disease. A lot of autoimmune diseases have shown very good efficacy with treating with melatonin. In fact, virtually all diseases do, because you're talking about melatonin supporting the body at its most core area where life force is made.

Think about disease like this, you have a stressor. If the stressor exceeds your ability to adapt, you have dis-ease, that is, lack of ease in the body. The longer that exists, the more opportunity there is for cellular changes to happen at an organ level and tissue level. We might then label them as some sort of disease pattern. If that pattern lasts long enough, we get cancer, because the mitochondria all throw up their hands and say, "Forget it, we're not going to work anymore," and we start to have problems with the way the cell reproduces.

Many cancers, particularly breast cancer, can be treated using melatonin. There are so many different reasons and ways melatonin inhibits breast cancer and the estrogen receptors. It works on those estrogen receptors and inhibits cancer to such a high level. That is my personal opinion. Prostate cancer is the same thing, they're estrogen-sensitive cancers. In that case, it's malpractice for any doctor treating patients with these cancers to not be putting people on melatonin. The evidence is just that clear.

Dr. Wendy Myers

I've been taking melatonin for about five years, and I've been listening to people who are misinformed, saying if you start taking melatonin, you're going to reduce your natural production and hence stay on it forever. But I'm of the same school of

thought. Anything that you stop making after 30 or 40, you need to replenish it, or you're going to suffer the consequences.

Dr. John Lieurance

First of all, show me the evidence that we stop producing because of exogenous melatonin. There's no negative feedback loop that I can find. In fact, quite the opposite; the researchers are saying there is no negative feedback loop like other hormones with melatonin. You hear that misinformation so often. That's why we need to get the word out, and that's why I'm glad we're on this podcast.

I'm also excited about my second edition of Melatonin *Miracle Molecule*, because I really feel that the word on melatonin needs to get out there. One of the things I'm going to add to the new book is on pets; the evidence of using melatonin with your pets, especially if you've got animals getting up there in age and starting to get different disease patterns, autoimmune conditions, and cancers.

Ads 45:27

Now a word from one of our sponsors. Like many of you guys, I'm trying to eat super, super healthy, and that's why I love really good quality olive oil. And by good I mean fresh. Olive oil packs some of the most flavorful and healthiest nutrients like antioxidants when it's fresh from the farm. That's the problem with store-bought olive oil. They're not fresh. They can sit on the shelves for months, growing stale and losing that antioxidant punch. That's why I get my olive oils directly from small award-winning farms, thanks to a fellow named TJ Robinson, who's also known as the olive oil hunter.

So when I tasted TJ's farm fresh olive oil, I fell in love with the vibrant grassy flavors. They're incredible on salad, veggies, pasta, meat, fish, you name it. I use it on

everything. Everything I cook, I'm using this olive oil. As an introduction to his fresh-pressed olive oil club, TJ is willing to send you a \$39 full-size bottle of olive oil for only \$. It's one of the world's finest artisanal olive oils. It's fresh from the new harvest, and it's just \$1 to help 'em cover the shipping. There's no commitment to buy anything now, or ever. Get your free \$39 bottle for just \$1 shipping and taste the difference that freshness makes. Just go to getfreshwendy.com to take advantage of this offer and get a full-sized \$39 bottle for just \$1

Dr. Wendy Myers

So many animals get cancer these days. It's just horrible.

Dr. John Lieurance

They do. We've got Sandman Paws' line of chicken-flavored bars. I'm experimenting with my dog, Lonnie. They're 40 milligrams and you can cut them into pieces. It has a rotisserie chicken flavor. It has to have a rotisserie flavor, of course.

Dr. Wendy Myers

Either that or hide your hand. I bought your Sandman. Specifically, I bought the Super Sandman because I feel like I'm indestructible. But I was very humbled by these melatonin suppositories. I slept like the dead. I think I slept for nine hours, which I don't think has ever happened in my life. I did not wake up. So talk about these, because these are high-dose melatonin; they're 450 milligrams. Which just seems shockingly high when the typical dose is three milligrams. Can we talk about that a little?

Dr. John Lieurance

I have some patients I even have on a gram of melatonin to treat diabetic, degenerative neurologic and cancer cases. Typically though, we're around 200 milligrams, and you want to start low and slow. I admittedly take 600 to 800 myself

and have for years. And I can stop taking it for several days a week, and my sleep scores are still pretty good. I don't really find that I drop off a cliff. So I do know firsthand that this negative feedback loop thing is nonexistent. It's tied to light going through your eyes. The amount of sun that you get matters. You want to get sun. You don't want to put sunglasses on as soon as you get out your front door. I dig wearing a cool pair of sunglasses. I've got my Elton John sunglasses. I like to cruise around like a rock star, but I also give my eyes a lot of opportunity to absorb photons. We even created an eye drop called Blue Eyes that further helps to soak up photons. I did a little video on my Instagram this morning while watching the sun come up, putting my Blue Eyes drops in and doing my breath work and grounding on the sand, which are important routines.

SandMan is our line of melatonin products, and they're high dose. This is what's considered super physiological melatonin dosing. They are what's really in the research showing efficacy for mitigating diseases. They didn't really think melatonin did much when they first started researching it, but they were looking at animals that were living at the Ritz Carlton. It wasn't until they started stressing the animals and comparing the stressed animals on melatonin to stressed animals off of melatonin that they started to see where melatonin was really shining as a stress resilience molecule.

We are under a lot of stress. A lot of it you can't really feel. We've got the boiling frog effect that we've gotten accustomed to over time. But like when you go take a vacation and you go spend a week in the Bahamas on a boat, unplugged from your phone, then you come back. It can be a little shocking. You realize that we're really putting ourselves under a lot of pressure and stress.

Dr. Wendy Myers

Let's talk about melatonin as the body's master antioxidant and why that's so important for detoxification. It can really help your body clean up all those endogenous toxins that our mitochondria are making.

Dr. John Lieurance

Anything that's going to increase mitochondrial function is going to support detox, because detox is like the project that the cell really wants to do the least. It needs to have that extra amount of energy to do the detoxification. As we get depleted, we can suffer from not detoxifying our body and becoming too toxic. So when we look at things like methylene blue, CoQ10, glutathione, NAD and other nutraceuticals, we realize there are benefits for detoxification with them. One of the things I find really interesting is a study that found melatonin detoxifies heavy metals out of the brain. I have found over the years prescribing melatonin to patients that there is a subset of patients that feel bad when they first start taking it.

Dr. Wendy Myers

That stops a lot of people from taking it. They think, "Oh, this doesn't work for me," or, "I don't feel good," and they're really short-changing themselves. They don't understand what's happening.

Dr. John Lieurance

Yes. Some people are not good detoxifiers of melatonin, and those pathways are similar to caffeine. If you have a hard time with caffeine such that a half a cup of coffee keeps you up all night, then you're likely going to find your experience with melatonin is such that you might be groggier in the morning. Therefore, we might want you to dose earlier before bed, maybe before or after dinner, so you've had enough time for the system to detoxify the melatonin out of your system.

The other key I'd recommend is getting sunlight in your eyes first thing in the morning, because it mops up all of that pineal melatonin and can help to snap you out of that groggy sensation. But the point I was making, Wendy, is this, are we just detoxing? Are people going through a Herxheimer reaction where they feel bad because it's actually a good thing? They're moving in the right direction by detoxifying. But those toxins then need to be shuttled out of the body. So we start looking at things like glutathione and binders. I'm a big fan of glutathione suppositories. I'm also a big fan of suppositories for melatonin and NAD. If I can give full disclosure, I'm the scientific advisor for a company called MitoZen Scientific.

Dr. Wendy Myers

They're a very unique product line.

Dr. John Lieurance

It's very unique. In regards to rectal delivery, we may want to first address why you'd do suppositories over oral or even IV. One of the concepts to understand is peak plasma. Peak plasma is when a substance is available in your blood and in the spaces and fluids around your cells for a certain period of time. With an IV, you have a very sharp spike in peak plasma and a very sharp drop-off. For instance, if you gave vitamin C IV, as soon as you stop running that IV, your body's clearing all that extra vitamin C out of your system very quickly. With a suppository, you have the benefit of an IV getting right into the bloodstream. However, it keeps that peak plasma over five to seven hours. For melatonin, that's really great because that's about what sleep is, and it mimics the natural release of melatonin out of the pineal. It really works well for melatonin.

The Super SandMan is just melatonin. The regular SandMan has 250 milligrams of glutathione, which is a sleep-promoting substance. So we put it in there because it's

great for sleep and a good daily detox support. Glutathione helps to chaperone toxins out of the body. It has a sulfur helix that wraps around toxins like heavy metals, pesticides, herbicides and other toxins in our environment. The regular SandMan is a great way for people to start taking melatonin, and we don't think people have the same negative side effects with that product because of the glutathione.

Dr. Wendy Myers

I think mine has all that in it, if I understood correctly.

Dr. John Lieurance

The Super SandMan does not have the glutathione. So we'll have people take that separately; we have the GlutaMax 600, and we'll have to send that to you. It's really a fantastic product. We use it on so many of our patients and I use it myself regularly for any type of allergies, fatigue, and brain fog. It helps with sleep, as we mentioned. It helps with viral immunity. There are a lot of benefits besides detoxification that you get from glutathione. We like to do that separately with a lot of our patients, because you can take more than one suppository at a time.

Dr. Wendy Myers

You can fit a lot up in there. Ben Greenfield has the record. He fit 10 while standing on his hands. He's got to be number one at everything.

Dr. John Lieurance

These were really amazing. There are so many people who have so much trouble with sleep and they need to detoxify. Everyone wants more energy, and melatonin solves a lot of those problems. I think when I heard you talk about this on several podcasts and on social media, I thought, "Huh, that just makes so much sense." And you're really one of the only people talking about this besides Deanna Minich. She did

a little online summit about melatonin and interviewed a lot of melatonin experts. That really got me tuning more into how important melatonin is.

Dr. Wendy Myers

I wasn't on it?

Dr. John Lieurance

No, this was a couple of years ago. But she interviewed about 10 different people. It's mind-blowing when you look at heart rate variability. Everybody's talking about HRV as the predictor of lifespan and health span. For people that maybe don't fully understand what that is: your heart is getting information from your autonomic nervous system, which is split into two parts; sympathetic and parasympathetic. Sympathetic speeds things up, fight or flight. Parasympathetic slows things down, rest and digest. You have influence from both, and therefore you have these variations in the heart rate that are subtle. Devices like my Oura Ring track my sleep and tell me what my heart rate variability was that night. We want a higher number, more variations, meaning more of a balance between the sympathetic and parasympathetic influence on the heart. A lower number means less variation, which is linked to more diseases and stressed situations, usually too much sympathetic dominance.

When we look at melatonin and look at the graph of HRV with age, it looks almost exactly like the graph of melatonin with age. Could it be that the parasympathetic nervous system is mainly controlled by melatonin? It's the primary hormone that does that calming, resting, and digesting. Because the extreme of that is sleep. Where cortisol and norepinephrine are going to be more driving the sympathetic nervous system. So you have those two counter levers going back and forth, and I

would almost argue this is one of the most important aspects of a healthy nervous system.

When the system starts to get too toxic and we start to lose mitochondrial life force, we start to lose this ability to manage the autonomic nervous system. What happens is that we default into an over-sympathetic state, which shuts down our digestion, leads to an overgrowth of bad bacteria, more inflammation, which further down-regulates our ability to make energy through our mitochondria. It then breaks down more systems as we go down this continuum of disease, degeneration, and eventually cancer.

Dr. Wendy Myers

When people are super stressed or making stress hormones, they're not making sex hormones, so those tank also.

Dr. John Lieurance

Exactly. Sex hormones are a big, important part of this, and thyroid function too, because they're so sensitive. When our body becomes overly toxic, when our mitochondrial performance is lower, some of the first things to really get hit are our gonads and ovaries, which are going to be producing our hormones. The adrenal glands aren't going to be producing the hormones we need to regulate a healthy life like we want.

Dr. Wendy Myers

Come to think of it, when I was 40 was about when I felt like my sleep started to tank, and I felt more stressed. A lot of people are just looking for outside hooks to hang that on. They may say, "Oh, my life is stressed," or, "I'm just getting older". They don't realize the biological changes that are happening and the supplementation or repletion

that they need to do to make up for the, unfortunately, biological clock ticking. We need to start replacing things.

Dr. John Lieurance

That's a really interesting point you're bringing up, Wendy. This is key because there are some things we have to accept as normal aging, it's just part of it. I don't think we can mitigate absolutely everything, although Bryan Johnson wants to live forever. But I think there are a lot of things we can mitigate through science, biohacking, natural medicine, balancing and detoxification. But it is a common conversation we have at the clinic. Is this just a natural decline to expect, or not?

Today there are a lot of advancements in orthopedic care. We started working with regenerative medicine, stem cells, and platelet-rich plasma many years ago here, based on injuries I had. I was about 26 or 27, a new chiropractor, and I had a car accident and a back injury. I had an MRI showing a bulging disc pushing on the nerve, and hence went to a neurosurgeon who said, "You don't need surgery today, but you're going to need it soon." Instead, I got injections in my back of dextrose, which is like a sugar to stimulate regeneration and growth. Immediately my pain went away. I went from thinking this is just part of the aging process to finding that you can garnish what the body would normally want to do to heal, put it right there for the patient. These technologies are just absolutely amazing. It's the same thing when it comes to peptides. I think peptides can do some things that really break the mold of what we thought we could do.

Dr. Wendy Myers

BPC-157 has completely changed things. When you get older, you just start injuring yourself at the gym or while you're sleeping. That's my body's favorite time to get injured, while I'm sleeping. With BPC-157, wherever I have a muscle pull or a ligament

strain, it heals in a day or two versus a week or two. Have you had much experience with GHK?

Dr. John Lieurance

I have tried it. We use GHK a lot here in the clinic. We add it to a lot of our injections, and we also have a couple of products with MitoZen. One is (a lot of people have never heard this concept) that you can put melatonin on your face, and it is incredible on your skin. What we did is blend a few different technologies, including estriol and estrone in the right amount in a cream. Traditionally, it's been something compounded, and it's been shown in science to help thicken the skin and improve its texture. So we put those hormones in there, resveratrol, and this antioxidant called apocynin, which is in a coconut base with high-dose melatonin and copper.

Ads 1:07:06

Are you taking collagen supplements? Well, check this out. Our friends at Organifi have sourced the best collagen on the planet, and you can get it with 20% off savings today, too. So, what is collagen? It's the most abundant protein in our body. It's everywhere. It's in your muscles, joints, hair, skin, fingernails, everywhere. It's one of the fundamental building blocks of life. Your body uses collagen constantly to keep itself refreshed and repaired. But as you get older, especially as women who are going into menopause, you can lose 30% of your collagen within the first five years of menopause, and that starts in perimenopause as well. Your body just stops making as much of it, and you start losing it, especially as your estrogen levels come down. That's why consuming collagen is such a great idea every single day. It gives your body a fresh supply to keep working at its best.

It's not only good for your hair, skin, and nails, but it also helps to support your gut and metabolic health, immune system, cardiovascular strength, and all of your

muscles and moving parts, too. Collagen is nothing new. It's one of the oldest supplements out there. Collagen supplements have been around for quite a while now. But what makes Organifi so special is that it's all about the quality. The non-organic collagen scare 16 me. They're really problematic because they can be full of glyphosate, pesticides, and other chemicals that you do not wanna be taking on a daily basis. Not all collagens are the same. It can come from many different sources, and the source can drastically impact its potency and effectiveness as well. Some manufacturers just go with the cheapest stuff that they can find and then add fillers and artificial flavors, and they still charge you a lot of money for that. Organifi always goes the extra mile to ensure its quality is the best. They blend five collagen types from four different sources, and they taste and test until it's perfect. And then they go even further to test for things like glyphosate residue and other sneaky toxins that can get into the mix. After passing through all of these goalposts, it finally gets the Organifi seal of approval, so you can rest assured it's the highest quality and non-toxic. I love that this company is a company that I can trust and that their products will be safe and effective exactly as they say they will be.

In the supplement world these days, that kind of honesty and transparency is getting harder to come by. So, if you've never tried collagen, now is a great time to start. And if you're already taking it, now is a great time to switch to a better brand. Upgrade what you're doing right now so you and your entire body is gonna love Organifi Collagen. It is something that I take on a daily basis. It's been a part of my supplement routine for the past five years, since I went into menopause, and so I can't recommend it highly enough. Now let's talk about saving you some cash as well. Here's what you do. Go to organifi.com/myersdetox and put in the coupon code "Myers Detox" to get 20% off. You'll save an extra 20% off by putting in my special

coupon code, Myers Detox. So, like I said, collagen's one of those things that I take every single day. It's one of the most important parts of my anti-aging protocol, the things I'm doing to fight off the clock. So for me, taking clean collagen is really important. It's hard to find, so I highly, highly recommend Organifi collagen.

Dr. John Lieurance

GHK copper peptide sounds like the perfect cream. It's called MitoSkin, and the idea of using melatonin topically; you don't get an absorption where you'll feel tired. It doesn't absorb that way. But we have resveratrol, estriol, estradiol, and progesterone in like the perfect combination, and this was introduced to me by a cancer doctor who was using transdermal melatonin on her patients. She said, "Oh my gosh, it's amazing for the skin, especially around the neck for wrinkles," and she recommended we start manufacturing a melatonin cream. That was the origin of how it got on my radar. We added the GHK copper peptide, and we've got this 90-day protocol we're recommending. We did this with Gabby Reece Hamilton and she just had great results. We have a package where people can get a discount for a full 90 days. That's really where I see people have dramatic changes, doing it daily. They take the melatonin in higher doses orally for three months, and then putting it on their skin just makes the whole thing work that much better.

Dr. Wendy Myers

The MitoSkin sounds amazing because you need (especially for women in perimenopause, in their 40s and after) topical estriol or estradiol and the melatonin topically. I haven't heard that before. But we need those things to thicken our skin and to maintain a youthful appearance. To make collagen, you need estrogen.

Dr. John Lieurance

That's right. These hormones play right into what you would want topically on your skin. GHK is powerful and there are whole product lines surrounding it. There's also something called apocynin, which has vanillin, a really powerful antioxidant we utilize in the MitoSkin as well. We also use it in a peptide product called Breathe. The GHK not only stimulates stem cells and reduces fibrosis, which is great for the lungs. So we introduce the GHK directly into the lungs through a nebulizer. It also helps with anxiety. I've seen some people with extreme panic disorders that were completely resolved just by nebulizing this formula.

Dr. Wendy Myers

I definitely want to talk about the MitoZen some more. Tell us about the benefits of the GHK-Cu peptide that you put in the cream.

Dr. John Lieurance

It stimulates stem cells, and by doing so, it stimulates more collagen formation and a regenerative effect in the skin and the hair. It's considered one of the top aesthetic peptides. There are a number of different companies that use it in creams and scalp preparations. It's quite popular, with a lot of studies showing efficacy with cosmetic applications with GHK. It's also good inside the body, like for joints.

For anybody looking to address shoulder, hip, or back pain, I wouldn't necessarily just use GHK by itself. I would combine it with KPV, BPC-157, and Thymosin Beta, sometimes called Thymosin 500. Those are kind of the top peptides that really help with repair and regeneration. Then you could look at growth hormone-releasing peptides as another stack for repairing the body and regenerating the skin, because growth hormone is a big driver of regeneration.

Dr. Wendy Myers

You mean like IGF peptides? Like Ipamorelin, CJC, growth hormone-releasing peptides? Those are all great. I'm really upset because I have a sensitivity to those, so I can't take them. But I can tolerate the IGF just fine. What happens when you take it?

Dr. John Lieurance

Did you try other companies to make sure it wasn't a contamination issue?

Dr. Wendy Myers

I didn't. It was just Peptide Sciences, who are no longer around.

Dr. John Lieurance

Sometimes there's endotoxins, there can be contaminants in some of those peptides, so it might be worth looking at. Was it a blend?

Dr. Wendy Myers

It wasn't. But I know some of the peptide companies are pretty sketchy. Well, they work so well when you find a reputable company.

Dr. John Lieurance

We source our peptides from a company in Canada, so ours are not Chinese. Most of them are from China, and there's just so much variation with Chinese companies. They are very hard to trust. It's hard to find ideal companies and know what you're buying online.

Dr. Wendy Myers

It's hard. I thought Peptide Sciences seemed really reputable, but they've unfortunately since closed, so I haven't found a new company. Are the peptides you get available to the public?

Dr. John Lieurance

Yes. Usually we source them for patients we're working with, either in the clinic or in our distance concierge programs. What I was going to get into is that when we do our procedures here, like treating a hip or a rotator cuff with platelet-rich plasma or platelet-rich plasma with stem cells, we may add GHK into the preparation. We have a brain protocol that we do, a series of IVs to treat neurological conditions. One of those IVs after we inject the stem cells is a bag of GHK, BPC-157, and Thymosin Beta all together. Sometimes we add SS31, which is a mitochondrial peptide, and then there's MotC. MotC and SS31 are both mitochondrial peptides. They work a little differently, but I find more subjective benefits with the SS31.

Dr. Wendy Myers

I've definitely been using peptides and have had nothing but good experiences except for the little allergic reaction to the CJC. But it's amazing. When you're older and trying to work out, you can injure yourself more easily and frequently, and it takes longer to recover. Taking BPC-157 anywhere I have a muscle pull or ligament strain, it just heals in a day or two. You're back in action. It's been revolutionary, because a lot of people get frustrated trying to lift weights and then getting injured, and it just doesn't heal. But you have options.

Dr. John Lieurance

Fantastic you're using that. I don't remember how I was first introduced to peptides, but I remember experimenting about 20 years ago. Most of the peptides have always been sold as "not for human consumption". It's kind of a wink, wink, nudge, nudge. But I was first looking at BPC-157 and Thymosin when I was suffering from Lyme disease with all the inflammation and joint and back issues, and finding that it really moved the needle for me. I was able to lead a fairly normal life while injecting these peptides. Then I'd stop and would start hurting again. Eventually I discovered I had

mold in my house which, just yesterday I had a mold specialist come over. I haven't been feeling great, and since it's gotten really hot here, I started to smell something. He opened my vents and they were caked full of mold.

Dr. Wendy Myers

Oh God. So you moved out?

Dr. John Lieurance

I moved out of my house last night and into this apartment here at our clinic. I already feel better just from getting out of there for one day. So I was living in that moldy environment back when I was doing peptides, but I noticed the peptides were so powerful that if I was taking them, I could still live with mold and feel relatively normal. That's how powerful they were.

Dr. Wendy Myers

I know it's hard in Florida. It's amazing there, but it's very humid, thus very difficult to get away from the mold problem.

Dr. John Lieurance

It is very difficult. I've got a whole crew coming over in a couple of days to just rip out the ceiling, the whole unit. It's going to be a major undertaking. I've got no choice.

Dr. Wendy Myers

John, is there anything else you wanted to communicate to the audience? We've talked about a lot of different subjects. Is there anything else you're really into that you wanted to mention?

Dr. John Lieurance

Just my own journey that I'm going through now with mold and detoxing. What I've started doing right away is taking cholestyramine. This is a binder. If you're exposed to mold, some of that mold gets caught up in your digestive tract, circulates through your gut, and it's in your bile. We excrete bile to break down fat, and then it's reabsorbed in your lower large intestines because bile is precious. It just cycles over and over again. When the toxins get into that system, it exposes your digestive tract to these mycotoxins, which trigger a massive amount of inflammation. So taking binders to mop that up is key. But a lot of binders really just don't work because the charge isn't right to grab it. Even a lot of your charcoal and so other normal binders don't really work well for mold toxins. So cholestyramine is a prescription.

One caveat is if you get a prescription for cholestyramine from your doctor and go pick it up at your local pharmacy, it's going to be filled with aspartame, which is a neurotoxin, and you don't want that. What we do is order it in bulk in a pure form, and this is what we use with a lot of our patients in our distance concierge programs. And then the other thing I'm going to be really looking at is taking a lot of phosphatidylcholine, because another place a lot of these mold toxins find themselves is in your cell membranes and in the fatty tissue in your body. Taking a lot of phosphatidylcholine to flush it, along with butyrate, is a really good strategy to clear out the toxins in your cell membranes.

So, get out of the environment, make sure you've got a nice air purifier and you're breathing clean air. That's number one. Number two is detoxifying from the enterohepatic gut cycle. And then the deeper, longer-lasting detox over a few months is taking the butyrate and the phosphatidylcholine. That's kind of a secret; we're revealing the secret of our concierge mold program right there.

Dr. Wendy Myers

It's so important because there are so many people suffering from mystery illness, and their doctor just can't pinpoint what's going on. Their blood work looks normal. So many people are dealing with mold, and it just never comes on their radar at their conventional medical doctor.

Dr. John Lieurance

No. I would stress that it's so common. If you're suffering from a chronic disease and you haven't had someone who knows what they're doing really test you. You can do a urinary mycotoxin test, which is a good test. There are inflammatory markers. I like TGF-beta-1, a blood work test you can look at. If that's high, there's a high probability you're dealing with mold. If you have multiple infections, a lot of times Lyme disease shows up when you have a lot of mold exposure because maybe we're all infected with the tick, maybe it's passed through mosquitoes or sexual transmission, and it's so prevalent, and it's just the people with weakened immune systems where it expresses itself. So looking at multiple infections could also be an indication that you're being exposed to mold.

Dr. Wendy Myers

Exactly. There are just so many factors at play when you're dealing with complex chronic illness, and that's why I love bioenergetics. They are easy and quick diagnostics addressing all different types of infections. That's why I use Spooky2. I'm pretty much using it daily now, right next to me, to detect whatever mold or infections I have going on and just nuke it out of my system.

Dr. John Lieurance

That's smart. It's good to work with frequencies, but you also have to attend to the physical body as well, like the cholestyramine.

Dr. Wendy Myers

John, thanks so much for coming on the show. Why don't you tell us where people can work with you? I know you mentioned you're doing telehealth online, but how do they do that, and where is your clinic if they want to come in and work with you in person?

Dr. John Lieurance

Thank you for having me on, first off. I'm fairly active on Instagram at @drjohnlaurence. Our website is advancedrejuvenation.us as far as the clinic is concerned. And then MitoZen, whom I'm the scientific advisor for. We talked about a lot of their products. It's a membership-based company with a couple of tiers, at mitozen.com. If you sign up as a member, you get access to some educational material, and the full line of products is available to members, most of which we talked about. That's how you find me.

Dr. Wendy Myers

It's an amazing line of products. I bought the SandMan, and I definitely want to try the MitoSkin. Everything you need in a cream in one product. John, thanks again for coming on the show. Everyone, I'm Dr. Wendy Myers. Thanks for tuning into the Myers Detox Podcast, where I have experts from around the world to help you upgrade your health and give you those little pieces of the puzzle so you can figure out what's going on with you because I want you to feel good and get the info you need. So thanks for tuning in.

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