



**Transcript: #365 How to Optimize Energy and Mitochondria Function Through Diet, Bioenergetics, and Light with Dr. Lisa Koche**

**Wendy Myers:** Hello, I'm Wendy Myers of [Myersdetox.com](http://Myersdetox.com). Welcome to the [Myers Detox Podcast](#). Today, we have my friend Lisa Koche on the show and this is such a great interview. We're going to be talking about your mitochondria, how to improve your mitochondrial functioning, and how to optimize the mitochondria through diet, bioenergetics, and light. So, a very, very interesting conversation today.

**Wendy Myers:** And we're going to talk about a number of things including Lisa's journey through very serious illness. She had leukemia as a child and numerous other health issues, and how this led to profound insights into how the body works and how to biohack the body. She just learned so many different things in her own illness and through going to medical school and working with thousands and thousands of patients. She's truly, truly knowledgeable.

**Wendy Myers:** And we also talk about the top things undermining your mitochondria that will surprise you. Your mitochondria make your body's energy. So, that's the name of the game. If you're trying to heal from chronic illness or trying to detox or do anything, you have to optimize your mitochondria functioning to have the energy to do any recovery or detox, sleep, anything.

**Wendy Myers:** And so, we also talked about how to increase the number of mitochondria in your body. We talked about the type of diet that optimizes mitochondria functioning and energy production. And we also delve into the power of intention and thought in recovering your health as well, your words and your thoughts are very, very powerful, very important to do affirmations and meditations and really kind of guide and lead your body to what it is that you want, not in worry and self-repudiation and really being upset that you're ill or

depressed, you really have to talk and think your way out of poor health. And so we touched on that a little bit as well in the show.

**Wendy Myers:** So, Lisa Koche, MD, is a triple board certified medical professional, founder and director of Spectra Wellness Solutions Clinic. She's the author of *Get Lit* and a national speaker. She's really a truth seeker paving the way for access to unbiased science and medical freedom. And she specializes in antiaging, regenerative, biohacking, and traditional and functional medicine. And at her clinic, Spectra Wellness Solutions located in Tampa, Florida, she focuses on all aspects needed for total body healing including the ketogenic diet, hormone replacement therapies and enhancing mitochondrial function.

**Wendy Myers:** She has built a team of gifted healers that work together to create individualized treatment plans for her patients. And she has several signature programs for optimal performance, including the Ignite Program featuring her first book, *Get Lit*, and she's lectured nationally and has been featured on numerous podcasts, radio and TV segments across the country. And you can find Dr. Koche's website at [spectrawellness.com](http://spectrawellness.com) and [drlisakoche.com](http://drlisakoche.com), as well as on Instagram by searching for [@dr.lisakoche](https://www.instagram.com/dr.lisakoche) and on [Facebook](https://www.facebook.com/drlisakoche) as well.

**Wendy Myers:** Lisa, thank you so much for coming on the show.

**Dr. Lisa Koche:** Thank you for having me.

**Wendy Myers:** So, why don't you tell us a little bit about yourself and how you got into medicine.

**Dr. Lisa Koche:** So I like to say I was gifted with the diagnosis of childhood leukemia. At the age of 15 when I was feeling totally fine, I went in for a camp physical and then they pulled me out of class later that day because I had abnormal findings on my bloodwork. And that led to three years of chemotherapy including intrathecal chemo in my spine and bone marrow biopsies and things that they actually put people to sleep now, I was wide awake.

**Dr. Lisa Koche:** So numerous different procedures, fat face and a wig for high school, relapsed on ovary in college right after all of my hair had grown back, and I had to start it all over again. So that was a fairly tough time and I kept asking why and nobody really had answers so that led me straight to medical school and then internal medicine residency to try to get some answers for my why. And I would watch as patients would come in with ovarian complaints and symptoms and they'd get put through a battery of tests and scans. And then typically, we put them on a protocol that to me didn't really answer their why either.

**Dr. Lisa Koche:** So I would talk to my professors and I was always very curious. And I'd say, okay, I understand, we're doing it this way but why, like why did that person get sick and not this one? Why is this disease presenting this way? And the answer I

would get over and over again was, this is just how we do it. And that, to me, was not acceptable.

**Dr. Lisa Koche:** So, I started my internal medicine residency because it seemed like that was sort of my broadest approach to disease, and went through and created my own fellowship in prevention, because I realized pretty quickly if I couldn't find sort of the answer to the why for myself or for my patients, I should at least try to optimize this beautiful vessel that we've been given, right, so that we could prevent disease. So I went into things like studying vascular medicine to prevent cardiovascular disease. I studied a lot of obesity medicine thinking that that was often what was leading to disease.

**Dr. Lisa Koche:** And that was a really cool opportunity for me because I started one of the first ever sort of OSHA and JCAHO accredited eval centers for bariatric surgeons. And so, I started working with this gastric bypass surgeon and I was doing all of his preop, sort of medical weight loss intervention, but I had to team up with a nutritionist and a psychologist because they require this whole team approach. And that was my first experience with really getting a team, a spectrum of kind of providers that we were all working together and looking at how the body was leading to disease and how people weren't eating clean and the mindset piece of it. And that went well for a little while.

**Dr. Lisa Koche:** And I was learning from a lot of my primary care patients, which I was developing a general primary care practice at the same time as well focusing on cardiovascular prevention. And it was really interesting because the bariatric surgeon would do his bypass and then these patients would see me and follow-up. And a lot of times they were losing weight which was awesome but they were totally metabolically screwed up. So, like their thyroid was tanked and they were so tired. And I would do all these different things and started studying nutraceuticals and nutrition in general in more depth.

**Dr. Lisa Koche:** And I went into my fellowship in integrative medicine trying to find answers. And around that time, the surgeon said to me, we've decided to move on with our evals in a different location. And I was like, what are you talking about? And he said, well, you went off this like complete integrative medicine rabbit hole and like I just needed you to stay here in obesity. And I said, well, you're missing these people up and I had to figure out why, right?

**Dr. Lisa Koche:** So that was just kind of an interesting side note, but it was one of the things that really pushed me further into integrative medicine saying, look, I know something's happening deeper than what we're finding on labs and scans. And around that same time, I was lucky enough to have my daughter. And back when I was 20 and it relapsed in college, they had to take an ovary out because my cancer had relapsed on my ovary which is kind of an unusual presentation. And then they had to put me back through chemotherapy again and I went into heart failure from one of the drugs.

**Dr. Lisa Koche:** So that was my first kind of introduction to integrative care even before I knew it, which was when my uncle sent me carnitine and CoQ10. I didn't know what they were. And my parents just had a sick kid so they were open to anything natural but we didn't know more than that. So back then I took the drug, I mean, I took the supplements and some medicines so it always blended traditional and integrative. And I got better.

**Dr. Lisa Koche:** And I was able to run a 15K and we thought my ejection fraction was, which is kind of how strong the heart pumps, normally it's 55 to 60, it had been down to 20, it went back to 50. So I was kind of considered low normal. And nobody knew if I could get back pregnant and I was able to get pregnant with the one ovary and all the chemo and my heart held out. And it went down a little bit prior at delivery down to about 45.

**Dr. Lisa Koche:** But we got through it and I'd say within a couple of months, I developed a total train wreck of symptomatology, the stress of pregnancy that you hear about a lot, but clearly had a lot of disease underneath the tip of the iceberg. So it turned on autoimmune Hashimoto's and psoriasis and I couldn't open my eyes. They thought they were going to have to do eye surgery for the thyroid eye. I had sinus surgery. And I was able to heal my eyes and my Hashimoto's and continue down my integrative path without surgery and always a blend of traditional and integrative.

**Dr. Lisa Koche:** And that trend of me getting really, really sick and me clawing my way out of it with a blend of traditional and integrative has occurred many times throughout my life and led to this incredible comprehensive approach that I have in my clinic today with the naturopath who does kinesiology, and an upper cervical energy healer who lines up the Atlas, and a bunch of other techniques that really led me eventually to see how central the mitochondria play a role in overall optimal function.

**Wendy Myers:** And I love that you take so many different modalities and even energy medicine, bioenergetics. You take just a full spectrum approach to biohacking the body. And can you talk to us about what your ideas are about why so many people are ill today and why they're not able to get, or not find that root cause of really what's making them ill?

**Dr. Lisa Koche:** So, what a phenomenal question. I would say, first of all, why they're not able to find it is because our medical system and how practitioners are trained is not in the finding of the disease, it's rather really more focused on treating symptoms, unfortunately. So, I think even if they go in with the question of why they're not getting the answer, and it's not really the doctors' fault either, it's the system of training, in my opinion, that practitioners go through.

**Dr. Lisa Koche:** Why so many more people feel sick today than maybe did 20 years ago, I think, is clearly multifactorial, so many different causes. From the food being first and foremost genetically modified and with all the different ingredients and just our

quick grabbing lifestyles and those types of things, not eating clean food, all the way to environmental toxins, which I know is your specialty, and so a lot of your listeners really are keen on that. Absolutely hard to avoid, ranging from the metal in our mouth, if we're a little bit older, all the way to EMF and junk light, and everything that we're learning more and more about today.

**Dr. Lisa Koche:** But really, if I nail it down, as I've gone through this journey myself, so much of it is the spiritual path, and people just being disconnected from that higher version of themselves. So, what do I mean by that? We get into roles, maybe we're mom or dad, we are spouses, we are a doctor, we are a lawyer, we have a career label. We are a child responsible for a parent even when we're in our 20s, 30s, 40s.

**Dr. Lisa Koche:** And these roles serve to distract and keep us in a place that is somewhat disconnected from self. And when we are like that, from an energetic standpoint, we invite in physical symptomatology that can really make us have issues. And then those answers again are not clear because there may be a more energetic spiritual side to the presentation of symptoms.

**Wendy Myers:** And I think all those things you mentioned that the doctors are not looking at that. They're not looking at psychospirituality, they're not looking at bioenergetics, they're not looking at toxins, they're not looking at, say, mold. Typically, they're just not looking for a lot of these, and the root causes. And I feel terrible for people that are going to doctor to doctor to doctor, and just getting more and more and more sick taking all these drugs. So, what is your approach, like when someone comes to your clinic in Florida? Where is it again in Florida?

**Dr. Lisa Koche:** Tampa, Florida.

**Wendy Myers:** In Tampa. And so, what's the process, the order in which you take your patients through?

**Dr. Lisa Koche:** So, another phenomenal spot on question because I'm working on systemizing that as we speak, but what we do is when a patient comes in, I believe strongly in just having them be heard. So, we will start at the beginning and I will ask them from childhood, like I don't want to read all the piles of different doctors that they've been to. I literally will just start, let's start from a clean playing field and like were you healthy as a kid?

**Dr. Lisa Koche:** So we'll go through this and I've got a sheet that I've created, which I'm happy to share with your listeners, where I have all the different systems that can come out of balance or become suboptimal, but then I've got the layers of the onion that have led to that happening in the first place. So, once I have some targeted specific questions, I'm going to decide, okay, you may be scored highest on your gut being our primary barrier to you being optimal so let's go down the path of the gut first.

**Dr. Lisa Koche:** For example, we heal leaky gut with my naturopath and muscle testing and supplements and different nutritional interventions. Or I may say, listen, you are really stressed and I can't get through until we get your parasympathetic and sympathetic systems a little bit more balanced. Let's do HRV testing and let me connect you with my mindfulness coach that I'm working with who has some great intervention, and try these supplements so we can kind of get that system calmed down.

**Dr. Lisa Koche:** And we'll peel the layers that way. Most of our patients, if somebody may come in and say, you know, I was great until I was in a car accident when I was 13 and I remember not ever kind of being back to my vibrant self. Well, hey, when your C1 is out of alignment, you're going to be disconnected. Your signal is going down, your blood going up to your brain, and that doesn't magically repair itself. So that particular patient, we may send in for structural alignment and energy work first, knowing that everyone really needs to optimize gut function and detoxify and work on infectious etiology and balance of hormones and their thyroid and their adrenals.

**Dr. Lisa Koche:** What is really special about how we handle it is we help people prioritize, because I've seen a lot of practitioners who will just dive into one modality that is maybe their specialty, and you're not going to get the same level of results if you've got a bigger problem kind of screaming and blocking that healing.

**Wendy Myers:** Yeah. I mean, I think that's the biggest thing that people are confused about, like they know they have heavy metals, they know they have mold, or maybe Lyme, or parasites, and their digestion is not the best and they just kind of don't know where to begin, where to start.

**Dr. Lisa Koche:** Right, right. And it's because it's complex. And truly, most doctors don't know how to guide patients. So, right now what we're doing is all face to face, but I'm working on a system where it's going to be computerized and it'll spit out sort of priorities. And we can throw in some other assessment tools. We're working on looking at sort of pulse differences in sort of Chinese pulse assessment, HRV, some other kind of learning where you are, awareness tools, so that we have a baseline as we do these interventions, we can track improvement.

**Wendy Myers:** And what role does the mitochondria play? So you're a mitochondrial specialist so you help your patients optimize their mitochondrial function? Why do you focus so much on that?

**Dr. Lisa Koche:** So, for your listeners who don't know what mitochondria are, they are the little engines inside of all of our cells that produce energy, and they take oxygen from the air that we breathe and electrons from the food that we eat or from the earth and combine them together to go through a complex set of steps to make ATP which is our energy frequency. So, what happens is we get so bogged down by we've got to get this particular toxin out or it's got to be the adrenals or like once I get my hormones balanced, I'll be fine.

**Dr. Lisa Koche:** And what I was noticing in my practice was, yeah, people were getting better with all those interventions and I was getting better. But there was still like not that vibrance, like you still can go to the gym and feel good, like you're at the gym and it would be like, okay, I pushed it but I'm tired now, or waking up and still tired even with adrenal support. And so I kept searching and with my own personal journey of cardiac issues related to chemo, that is specifically mitochondrial damage that happens there.

**Dr. Lisa Koche:** And the first thing that really tied into the mitochondrial connection for me was when I learned about ketogenic diet way before it was popular. I was searching for new ways to eat that weren't so boring for my patients, like it wasn't grilled chicken and broccoli, and I had this program where I was looking at all the lifestyle and different supplements and things. And I stumbled upon an interview and it was with Dr. Mercola and Dom D'Agostino, and he is sort of one of the main researchers in keto.

**Dr. Lisa Koche:** And they are listening and they were saying, hey, well, with this ketogenic diet, you can trigger mitochondrial biogenesis. And I was like, wait, what did you just say and what does that mean, right? Because I personally had no idea that you could make new mitochondria. I did not know that. Like we had studied mitochondrial medicine or mitochondria in eighth and ninth grade. And then like, literally, not really again, I mean, it was touched on in medical school but never focused on unless you had some rare mitochondrial myopathy disease that was inheritable.

**Dr. Lisa Koche:** So when he said you could make new mitochondria, I stopped what I was doing and I started listening a little bit more. And he was talking about this ketogenic diet and how it would trigger the formation of these new mitochondria inside the cells. And then he said, well, at my research lab at the University of South Florida, so then I really dropped what I was doing because he's literally 10 minutes from me. So I did what I always do, which is pick up the phone, email, pick up the phone and be like, oh, my God, I just heard your interview, is this real, and can I come check out your labs?

**Dr. Lisa Koche:** So, that was kind of what started a deeper dive into evaluating ways to hack mitochondria and my own personal experience with the ketogenic diet. And it has continued as I've taken a step back and looked at things like we talked about before, adrenal or thyroid hormones detoxification, none of these things are possible without ATP production from your mitochondria. So, we were kind of like skipping over the most important part, even in integrative medicine, like I don't know how because I did this in extensive fellowship. Like even in that fellowship, it was not brought up until I'd say, maybe what, past six, seven years? I'm sure you experienced that too, right?

**Wendy Myers:** Yeah. And so, tell us like, why are mitochondria malfunctioning? What are the roadblocks that are preventing so many people from producing the energy that their bodies are capable of? Because I know, for me when I wasn't well, my

number one complaint was fatigue. I'm just tired. Why am I tired? I eat this amazing diet and I sleep at night. I'm doing everything right. And that's with all the clients that I've worked with. Most people's number one complaint is fatigue, what's going on?

**Dr. Lisa Koche:** So, it is the fact that we don't have a way to easily assess the number and function of our mitochondria. So I think a lot of us, because I was the same where I killed so many things but I was like, no, I want to be an athlete, like I don't want to stop here. Why am I still, why am I stuck now? Patients who would go through our programs and be feeling, let's say, 50, 60% better but, again, or maybe even 70, still that main complaint being fatigue, maybe brain fog, and definitely poor recovery after exercise.

**Dr. Lisa Koche:** Those are probably the top three symptoms I see of mitochondrial dysfunction or suboptimal mitochondrial function. Why? Because they're very highly concentrated in the brain, the heart, the muscle. So, when you're not getting enough fuel in your brain, you get foggy. When you're not getting enough fuel in your muscles, you can't recover after working out or you're not getting enough fuel everywhere, you're tired.

**Dr. Lisa Koche:** So, when we look at what damages mitochondria and or what prevents their optimal biogenesis or new ones, again, number one is probably dietary. When you look at the fact that that is the part of the cell that actually takes in food and uses the electrons and turns it into fuel, it's also an engine that's very sensitive to inflammation and to free radicals.

**Dr. Lisa Koche:** So, if you've got an inflammatory grain or a food that's grown with glyphosate or genetically modified, it's going right into that engine and it not only is not producing the ATP at that level that it should be, but it's also causing generalized inflammation which is going to literally kill off some of the mitochondrial function. So, probably number one, again, would be the food source.

**Dr. Lisa Koche:** Number two, and I'll tell you, a really simple, very interesting way to think about these things. Number two would be energetic frequency, the light. And I'd say number three would be stress. So, when we look at plants, so this was a really, really another big pivoting moment for me. About maybe three or four years ago, my daughter was studying for an exam.

**Dr. Lisa Koche:** And she said, hey, mom, can you quiz me? So she's probably in eighth grade. And I said, please don't be history, please don't be history. And I'm like, is it complex history things that I have no interest in. But she said, no mom, it's biology and mitochondria. So I was like, oh, heck, yeah, bring it on girl, like let me see, let's go.

**Dr. Lisa Koche:** So she handed this packet of questions. And I opened the first five pages were about a leaf. So I was like, seriously, Jordan, why is it, you said it was mitochondria. And she looked at me, she says, mom, the chloroplasts and the



mitochondria are exactly the same. What's the big deal? And I was like, huh, what are you talking about? So I looked at the paper and the drawing of the chloroplasts, which is how a plant makes energy from lights, right, and the picture of the mitochondria and they looked exactly the same. So I just said, that is very interesting. And I filed it over here somewhere because I didn't know quite what to make of it at that point.

**Dr. Lisa Koche:** And then fast forward about six months later, and I'm listening to a controversial neurosurgeon that I'm sure you know Dr. Jack Kruse, who is a brilliant guy and talking about mitochondrial function and how light can affect mitochondria. And he's not always PC and he's like screaming, people wake the bleep up. The mitochondria and the chloroplast are exactly the same and light matters. And so then I was like, I knew that, and it kind of triggered all these bells. And when you look at a plant, what does it respond to, right? Like we know it responds poorly to stress. And we know like if you talk to your plants, they seem to grow nicer or-

**Wendy Myers:** I have a funny story. My uncle was trying to beat the world's record for the tallest tomato plants. And he would live in Austin, Texas. So he actually studied under the guy that had the world's record, like 32 feet high or 31 feet high or something like that. But his secret was he talked to them.

**Dr. Lisa Koche:** See, there we go.

**Wendy Myers:** He talked to the plants. Every day, he played music for them. And I think he's only got up to like 18 feet and like the bugs ate them or something so he never accomplished that. But the secret was talking to the plants.

**Dr. Lisa Koche:** There you go. So, if you talk to plants, they're happy. If you water them and keep them well hydrated, and they need the sun, right? So, I look at the mitochondria in the same way. And since we don't fully understand it, we don't fully have effective tools to evaluate their status yet, we want to treat them like we treat plants. And part of it is that the mitochondria were their own bacteria so that's the other sort of interesting side note. They were functioning on this planet before we hijacked them. We hacked them and brought them in to be our engines. And so they have the ability to respond to their environment.

**Dr. Lisa Koche:** So when you think about it that way, if you're running around stressed, and that would probably be my top answer for why everybody's exhausted, it's an old and boring answer to say you're stressed that's why you're tired, right? We've heard that before. But if you put it into the mitochondrial construct, it makes sense, right? Because they are able to sense their environment. They're sensing that there's a battle going on and they are not going to like that. They're going to retreat. It's not going to trigger a good healthy response when it's at extreme levels.

**Wendy Myers:** Can you talk about the cell danger response like how the mitochondria may be shutting down to not feed energy to pathogens that are in your body?

**Dr. Lisa Koche:** Yeah. Well, what's really interesting with stress in the mitochondria, you have the one extreme of sort of cell danger response and inflammation from infectious etiology or toxins where it just kind of shuts down. But then you have hormesis, which is a fancy word for the fact that stress can actually trigger mitochondrial biogenesis when it's done in the right way, when it's like the Goldilocks kind of concept of, it's a little bit.

**Dr. Lisa Koche:** So you're like doing a workout at the gym and you're going to trigger growth of your muscle so you have things like cryotherapy and red light therapy and other things that are going to maybe stress the mitochondria that aren't so healthy and trigger new ones to be formed versus a response that's so extreme, a cell danger response where you're getting a toxin or infectious etiology, that's so extreme that it just completely shuts down. So that concept is really, really interesting and complex at the cellular level but we're starting to understand it more and more, and developing more tools to be able to measure it.

**Wendy Myers:** And then what about taking antibiotics because mitochondria are bacteria. And a lot of people go to doctors and they just want something, give me a fix, and are given antibiotics if they present with any type of upper respiratory infection or what have you. And what role is antibiotic abuse having on our number of mitochondria in our body?

**Dr. Lisa Koche:** And I think that's a fantastic question. And I would actually say it expands beyond antibiotics. So, yes, it makes really good sense because it is bacteria that they're going to have more direct damage especially from certain types of antibiotics, like the floxin group and some of the macrolide antibiotics. But there's a broader, just drug phenomena, where a lot of medicines in general are bringing mitochondrial toxicity.

**Dr. Lisa Koche:** So, I do think that when we look at the big picture, which is why the first question whenever I'm talking to anybody is, did you have a lot of antibiotics as a kid? That piece of it and, truthfully, we don't even know now what the magic V word since I don't want to talk about it, like what do those do at a cellular mitochondrial level for your body, long term in general, as far as why people are more tired now. Because as we know, we're seeing kids, we're seeing kids and 20 year olds that are so wiped out and in much higher levels than we did back when we were grown up.

**Wendy Myers:** I mean, people I think are really being born behind the eight ball, like they just don't have a good start in life with the mom having a mouthful of mercury amalgam fillings and toxic environment and stress and the diet maybe not so good while the mother was pregnant, and mineral deficiency and just poor microbiome with the mother. And a lot of kids are just being born very, very ill today.

**Dr. Lisa Koche:** And I think that brings up another super interesting point, which is what about women who had to go to fertility, which they're hacking a system that isn't

getting pregnant for a reason. I mean, it's different in different cases, but then those kids really need even a lot more additional support at the beginning in my opinion, right? Because that was like me, I was able, this was just because my son wanted to be here, but I had my daughter when I was 33 and then my body crashed. I did all my learning hacking, all that stuff, had one miscarriage.

**Dr. Lisa Koche:** Basically said, it's okay if I don't have another one. I'm blessed enough. I have one ovary. I had all this chemo. I'm not going to do fertility. I ended up getting pregnant and having my son at 41 without anything. But I knew, so when he was born and he was having, I noticed a little bit of like skin reactivity, I just said, okay, I'm going to wait on his shots for now because I know he was bathed in 41 years of exactly what you said, somebody who like had had a mercury and chemo and all of this stuff.

**Dr. Lisa Koche:** So, I think just awareness, I mean, to get these kids started out on the right foot was, is it maybe we end up having some hacks, red light therapy wise, or really working on at least blocking EMF or getting them on the right type of diet early on, or is it different supplements that are more mitochondrial base that could help. I think it can make a huge difference in literally every kind of disease, because mitochondrial dysfunction is behind almost everything.

**Wendy Myers:** Yeah, absolutely. And so, what are some of your tips to optimize mitochondrial function and particularly circadian rhythm of light exposure as well?

**Dr. Lisa Koche:** So my favorite, which is so simple, is that when you get up in the morning, so we know the morning rays have some frequencies that are better for the mitochondria and we know grounding which allows electrons from the earth to kind of come into your energy field are two pretty awesome hacks. So if I can get people to just head outside and fix their circadian rhythm, not touch electronics and go straight outside without contacts or glasses, without shoes and just put bare feet on the earth and connect to the earth and do a guided meditation or just do breath work.

**Dr. Lisa Koche:** Because the breath work will also hyper oxygenate, right? So I do something basic like box breathing where you just breath into your belly for four and then hold for four and then out for four and then hold for four. And something that simple will get you more oxygen, more electrons, calm that sort of stress response, allow nature, the sun to kind of come in with its frequencies. And people have told me their fatigue is dramatically better just from that exercise. And it's 10 minutes and it's free.

**Wendy Myers:** Yeah. I mean, it couldn't be simpler. And I used to wear sunglasses every time I'd go outdoors and I refuse to wear sunglasses now, like I'm just going to squint and get wrinkled, I don't care. Because it used to be about protecting. I thought I needed to protect my eyes as I'm going to get these cataracts or something, there's going to be a problem with my eyes. But you need that sunlight that's

queuing parts of your brain to make cortisol or to calm down and make melatonin. And what travesty is light at night causing our mitochondria?

**Dr. Lisa Koche:** So, yeah, the night light, whether it is usually from devices being blue light and or just junk light, fluorescent light, all of it, just confuses the mitochondria. They're on a circadian rhythm where they prefer different types of light early in the morning and then settling in in the evening. And that piece of it is relatively easy to hack. So now, and with people home on devices, there's so much more now like through this pandemic and everything.

**Dr. Lisa Koche:** I'm making sure if people can pay attention to wearing some of these blue light blocking glasses and knowing to really be aware of their evening exposures, it really can help their circadian rhythm, it can help mitochondrial function just to have that level of awareness. Look at different settings on the phone, take the blue light just in general out on the phone, I think, is helpful. And working on getting more and more of the red light, the healthier frequencies of light exposed to the body.

**Wendy Myers:** Yeah. And what are your thoughts on, say, when someone, they've created their cocoon in their bedroom and they're wearing a face mask and doing everything right but they still have light coming in through their window from a street lamp or their neighbor's light or what have you, are the mitochondria sensing that as well, sensing that light?

**Dr. Lisa Koche:** I would say they may be a little bit but when you... I'm very much about the big picture and stress. So, we can't live in a bubble. We can't live in a tin foil house, that's not where we are. And so, you can do and empower what you can control. But another thing I really like to work with my patients on is if the mitochondria are listening, if we can kind of connect to them. So, I'm all about this one in regards to, let's say, medication. If you have to take medicine for something, instead of just being, darn it, I get so annoyed, let's take this drug and swallow it down, can we connect to it?

**Dr. Lisa Koche:** Because everything's energy and the mitochondria are very sensitive to energy frequencies. Can we say what I do, because I have to take three meds, thyroid and two heart meds. Say, hey, thank you to whoever made you. Can you please go in now, do what you need to do and then move on out, and then I'll put them in my mouth and I'll drink, okay. So, the same kind of thing with regards to something like a light on the street that you cannot control, or a stressful job as we shift our mentality to gratitude while we're looking for something else, gratitude that we have this job, right? Can we connect and talk and say, hey, thank you, instead of err.

**Wendy Myers:** Yeah, exactly. And I love that because definitely a big theme right now is intention and the intentions of your thoughts and your words and they're much, much more powerful than people give them credit for. And for me, I'm doing meditations and things in the morning and every evening and really trying to

focus on what is that, that I want for my health and my life and yada, yada, yada. So, you also are very big on bioenergetics and in frequencies and using different modalities in your practice with your patients. Can you talk a little bit about that and why you use that and integrate that in your practice?

**Dr. Lisa Koche:** So another really cool story. About 10 or 11 years ago, there was a chemical engineer, yeah, chemical engineer, who was studying Kabbalah and just for fun on the side and he downloaded this device that he was supposed to build. So he built this device that had energy frequencies, light and music, and paired up with an investor who had a daughter with type 1 diabetes, and they built this thing and they started treating people. And mostly they focused on the type 1 diabetic population and they were getting better.

**Dr. Lisa Koche:** It seemed like their immune systems were balancing out and they were actually measuring parasympathetic and sympathetic systems with this device that was out back then. And they were blown away. So these were not medical people. They called the university in town and said, we have to get a clinical trial, we're seeing incredible results. And the university said, this sounds really interesting but it's too out there for us, so here is Lisa's phone number.

**Wendy Myers:** Of course, of course.

**Dr. Lisa Koche:** They called me and I said why not, do no harm. I'm interested in all of this. This is actually even predating my keto and really focusing on mitochondria focus. And so, I went to go try it. This is actually really funny. So they had it all set up in a big warehouse. They had like two of these devices. And right when I pulled up, I was so thankful I had brought my dad because we walked in, I was like, I'm going to be in this box with these two men that I don't know, like for an hour laying there. And that's pretty much what happened.

**Dr. Lisa Koche:** So, my dad hung out. They did measure my parasympathetic and sympathetic balance, got me in this treatment for an hour where you're kind of in and out of sleep. And that meditative state was one of the first times I had really felt it. And when he opened the door after the hour, he started like gagging. And he was like, aah, uhh, can you smell that? And it turned out it was chemo. This was a wild experience. And I could, like after he pointed it out I could. It smelled like a waste dump, really like a medical waste dump.

**Dr. Lisa Koche:** And I had done all these years of detoxification, of healing my gut, taking all the supplements, eating healthy, right? So I sat there and I was like, holy crap, we're sitting here working on this physical vessel but we're not able to access the energy part of our body which is connected for all of us so we're only halfway if that there, right, we're missing half of the story. So, I was playing already with kinesiology and my naturopath. And then I realized, as out there as he had seemed, he was actually really just physical too just like me, right? He was just using the energy field to test, not to treat.

**Dr. Lisa Koche:** So then it became, whoa, how are we going to get this out of here. So I ended up with the device in my office, which I still have, and we were fixing things like insomnia and PTSD and even shingles with like crazy symptomatology would improve with this combination of vibration, music and light. The device was way ahead of its time. So the FDA went after them and they ended up going bankrupt, like all these really cool, awesome new modalities.

**Dr. Lisa Koche:** So now it's kind of coming into its time again, but that set the stage for me to question and research energy healing. And then when the mitochondrial stuff came in, that's when I knew that one of the biggest connections between sort of mindset, spirituality, energy in general is probably connecting through the mitochondria in addition to things like our fascia and DNA in general.

**Wendy Myers:** Because our fascia, it's kind of crystallized, and we have messages that travel through our body and our fascia, connective tissue between your skin and your muscles, it has a very important role. And, yeah, that can help to transmit communications, frequencies throughout your body. And it's one of the main ways your body actually communicates.

**Wendy Myers:** It's not just your hormones, your neurotransmitters, and your physical means of communication, your body, you communicate very much on an energetic level where your body is doing trillions of things every second. And everything that happens physically in our body cannot account for everything, all the different transactions and all the different things that are going on.

**Dr. Lisa Koche:** Right. And that was a more recent thing for me to study fascia a little bit more. And I had another crazy kind of experience. And, again, I really thank my body so I would tell your listeners. I try to connect in and have gratitude. And my body has always been my biggest teacher. I've had to hack it time and time and time again and it keeps leveling up for me. And one of the more recent hacks was working with a spiritually attuned myofascial release practitioner. And after she did a couple, I think, her second session with me, I went out and was kind of just meditating or looking at the water.

**Dr. Lisa Koche:** And I had this whole thing happen where a mom and little baby ducks came right next to me. And I was having some back pain, which I'd never had. My body presented with the back pain to show me the modality of myofascial release, to let me understand how fascia works through this message of the universe with ducks. So the mama duck flew away and the little baby ducks were right at a wall. And this is the place where it's the bay where usually there are no ducks, it wasn't a pond, and so they were in an odd location anyway. And the baby ducks freaked out and tried to climb the wall.

**Dr. Lisa Koche:** And I was sitting there talking to them, like mommy's coming back, you're going to be fine. And she flew back over and they calmed down. And then I was like, oh, maybe this is the message that I'm a good mom or, I don't know, I'm just going to sit with this. And then she flew away again. And the baby ducks just

kind of sat there. So I was like, isn't nature awesome? Like they already learned she's going to come back and they're baby, like little tiny baby chicks, so she comes back again. And then I sat there and I thought about it some more. And I said, wait a minute, there's three little ducklings, I only have two kids.

**Dr. Lisa Koche:** And then the whole message came to me, which was that it was my mom and how she wasn't able to be in the room with me for some of the more traumatic procedures I had done. And that I had stored that fear in my fascia. So I literally called my mother and said, were you allowed in when they were doing bone marrow biopsies and all? She said, no, they wouldn't. It was sterile and they would not let me in the room. So that was pretty like, whoa. People can store trauma and it's going to block healing because your electrons and your light and your water is supposed to kind of fly through the fascia and trauma can get stuck there.

**Wendy Myers:** Yeah. And trauma is a huge underlying root cause of health issues. And blocking our meridians and blocking our chakras and blocking other energetic pathways including the fascia. And, yeah, can you talk a little bit more about that and how you kind of help your patients address underlying root trauma to address their physical health issues?

**Dr. Lisa Koche:** Yeah. So I think the first step, which your listeners can just kind of think about on their own, is just understanding that there is a connection, right? So when I go through patients' histories, I always will kind of tap into major stressors and traumas from the beginning because there's a clear tie to physical results from these traumas. And when we identify it, and a lot of times they'll say, no, I did plenty of therapy on that, sexual abuse, or I did plenty of therapy when my dad never talked to us again, or whatever the trauma, we've all had trauma.

**Dr. Lisa Koche:** It is the energetic storage of the trauma in this fight or flight kind of manner that's often missed. It is the energetic storage of the trauma that kind of can happen subconscious, repetitive thought patterns, which most likely are having a direct impact on mitochondrial function, right? That's something I want to be able to prove someday but it makes sense. So, it will be like, okay, we need to find a way to get this physically out of the body instead of just the maybe talk therapy or other work that people tend to have done.

**Dr. Lisa Koche:** And so, I will use things like the myofascial release. Often for things like sexual abuse, it can be stored in the fascia vaginally for women. And they can go inside and break up some of the scar tissue using a manual technique. I have different energy healers. One of my closest friends is a blind Jin Shin Jyutsu healer which is like acupressure without the needles. And so she has taught me a lot through, we've shared a lot of the same patients. And she'll be able to see where there are blocks in their energy meridians related to these traumas and then we can pair it with the physical support that I'm doing with them and they get better faster.

**Dr. Lisa Koche:** And then the last thing I'll say is the upper cervical work with the Atlas Orthogonal C1. Anytime I see people really stepping into release trauma, like this was super interesting. Okay, I'm ready, I'm going to be meditating every day, I'm going to work with a shaman, I'm going to do some healing work. And then they'd come in with neck pain. It was like over and over and over again.

**Dr. Lisa Koche:** And so I started digging a little bit deeper and it turns out that like when you're ready to clear this energy field, and I view trauma, toxins, whatever is there, a frequency like a toxin like my chemo was, and when you're ready to dump it, it doesn't just go out into the air, typically it has to be processed by the physical vessel and the entrance point is C1.

**Dr. Lisa Koche:** So if your neck is sort of out of alignment or if you are trying to clear a bunch of frequencies, this can get kind of, can start achy, tight up in here and it can slow your healing process and slow the release of these traumas. So if we can tap it in in a safe way, there's no manual manipulation, it's done with a soundwave, that healer has been so, so important in my practice because she will help people get to that next level of releasing some of the energetic stuck frequencies from the traumas.

**Wendy Myers:** That's so, so interesting. I mean, producing frequencies like that can have such a profound effect on neck pain and aiding trauma release and whatnot. And so, are there any nutritional things that you do with patients in regards to feeding the mitochondria? And what is your approach bioenergetically with the mitochondria as well?

**Dr. Lisa Koche:** So, I would say, I mean, bioenergetically, I'm looking a lot at things like red light therapy. I am grounding the blue light blocking. The bioenergetics, I'm looking at it two ways. What is damaging the mitochondria and how can we help protect against it? So things like EMF and junk light and computer light. And we've talked a little bit about that and things like the pendants that you talk about and modulating the computer lights color spectrum. And then it's also how can we charge energetically in a positive way?

**Dr. Lisa Koche:** So how do we prevent damage but also how do we charge? And bioenergetic charging would be a lot of, honestly, mindset, gratitude, intention, healthy, clean, charged water, crystals which are my favorite. I think we're going to be able to prove that so I got them everywhere that you have them in your field and it kind of can help things line up appropriately. So that's an emerging field that is super exciting to me and I'm constantly studying.

**Dr. Lisa Koche:** From the food perspective, the data is very clear. So it would be a modified ketogenic diet because hardcore keto is not for everybody and there's a lot of ways to do it incorrectly as you know. But when it is done correctly, especially in combination or looking at intermittent fasting or fasting in general, that is where the mitochondria is the happiest. Because when we use fat as our primary fuel, we make more ATP and we have less of the kind of fumes and damage from



working through the engine of the Krebs cycle than when we eat inflammatory carbohydrates.

**Wendy Myers:** Very, very, very good to know. I am doing that right now. I am dramatically reducing my carbohydrates.

**Dr. Lisa Koche:** Awesome.

**Wendy Myers:** Yeah. It's not easy to do.

**Dr. Lisa Koche:** It's not. I, again, was one of the first people before it was on any shelf. I was doing keto with my patients because I was blown away that there was a diet that the food could still taste pretty good and that it actually had an outcome of new mitochondria. So I played with it very early on. So, I just launched my first course online that's called Keto-ish, because I have so much experience of seeing how it's not going to be black and white for everybody. So, yes, it's a little tough, but not like it used to be. So many things in the store now, clean options that get you from not being as frustrated as maybe when you would have tried to do keto five years ago.

**Wendy Myers:** So tell us about the course.

**Dr. Lisa Koche:** Okay. So my course is, we're at week six now, this is my pilot, and it is modules. There's eight modules, about eight to 12 minutes of me going through, like holding hands with people as they go through this journey of keto adapting. And then I'm doing a live one on, I mean, a live group, one-hour call on Zoom. And so, people have access to all of that.

**Dr. Lisa Koche:** And then we have some good hacks like exogenous ketones or a couple of this juice that tastes pretty good that can cut carb cravings, playing with C8 which is a form of MCT oil that is a lot more powerful than just MCT that you buy at the grocery store, and that it will cut cravings, can go in your coffee, can go in a smoothie. So, I sort of just hold everybody's hand through the journey. And when we hit stumbling blocks, they share my wealth of experience from all the years of doing this, not just on myself but with a lot of different patients.

**Wendy Myers:** Fantastic. And so, where can people go to, to learn more about your course and sign up?

**Dr. Lisa Koche:** So, if they want to go to my website, [spectrawellness.com](https://spectrawellness.com), my social [@drlisakoche](#) on [Facebook](#) and Instagram. We'll be launching it again in January but there's tons of information in all of those places on mitochondrial function, on keto, on just about anything that they would want to know.

**Wendy Myers:** Yeah. And tell us about your book also. You have a book called Lit.

**Dr. Lisa Koche:** I do. My book is called Get Lit. And it is a quick and easy read. So the biggest amazing feedback I get is that anyone wherever they are on the journey can pick it up, get through it in about 45 minutes to an hour, it's in a Q&A format, and can get nuggets of just pearls of information. So, it's structured into the mind, the fuel and the body.

**Dr. Lisa Koche:** And it's, again, an easy read with a turnkey program at the end that guides you through a modified keto, really incredible mindset piece, and that's called the Lit Scale. So raising awareness of where you are in your own kind of spiritual journey. And I have affirmations at the different levels that people can start practicing to wake up their selves and kind of move forward towards getting what I call getting lit.

**Wendy Myers:** I love that, I love that, because I'm doing some version of that right now just trying to light up my game. What can I do? I'm doing so many different things and biohacking and bioenergetics but really trying to work on mindset right now just like you said, the words and your thoughts are so incredibly powerful and you have to take control of that in focus. And I love affirmations and listening to music infused with frequencies and doing affirmations to these types of music and so amazing.

**Wendy Myers:** So, thank you so much, Lisa, for coming on the show. And you are such a knowledgeable practitioner and I've been wanting to have you on the show for a really long time and you're also one of our doctors that participate in the harmony pendant study testing HRV before and after EMF exposure wearing the pendant. So, thank you so much for doing that as well and contributing to that. So, again, tell us where we can find you.

**Dr. Lisa Koche:** Absolutely. And I wanted to thank you. And I think we could have talked for like five more hours. We will have to do it again. I'm [@drlisakoche](#) on Instagram and Facebook and [spectrawellness.com](#) is my website.

**Wendy Myers:** Fantastic. Well, Lisa, again, thanks for coming on the show. And everyone, thank you so much for tuning in every week to the [Myers Detox Podcast](#). You can't detox unless you have adequate levels of energy. So it's really important to know how to care for your mitochondria, the do's and don'ts of caring for your mitochondria so that you can facilitate detox. Detox is an energy intensive process and that's why a lot of people have trouble with it. A lot of guys know you need to detox. You know you have mercury and lead and whatnot. But many of you don't have the energy to in fact process this stuff and release it.

**Wendy Myers:** And so, hope you guys got lots of tips this week on that. So thanks for tuning in everyone. My name is Wendy Myers at [myersdetox.com](#). Talk to you guys next week.