Protocols for Promoting Neuroregeneration: A Special Interview With Dr. Lee Cowden

By Dr. Joseph Mercola

JM: Dr. Joseph Mercola
LC: Dr. Lee Cowden

JM: Your brain is a really important part of your body. I'm sure no one would disagree with that. Today we are honored to have Dr. Lee Cowden, who is going to help elaborate on some of the potential issues that can go wrong with it and how you can correct them. Welcome and thank you for joining us today, Dr. Cowden.

LC: Thank you for having me on.

JM: It's great. Interestingly, part of the reason we're talking about the brain today is that, in November, there will be a conference with the ACIM, the Academy of Comprehensive Integrative Medicine, which you are the founder. Maybe we can take a sidestep here and talk about the academy.

But the whole focus of the meeting this year in Orlando, in the first week of November, will be on brain health. It is literally the best professional conference that I attend. There's only a few hundred professionals there, but it's really high-quality. It's just such a great time. Why don't you tell us a little about ACIM? And then we'll go into some of the details about the brain and some of the exciting areas that we're going to talk about there.

LC: Yeah. The Academy of Comprehensive Integrative Medicine was started in 2008 with the vision of trying to educate integrative practitioners around the globe or those who wanted to become integrative practitioners around the globe, for the most part online, without having to go anywhere. Because so many practitioners are so busy that they can never take the time to go to all of the meetings they needed to go to, to learn what they need to learn. We decided to start putting educational courses online.

In 2014, we actually started a 300-hour integrative medicine fellowship training program that's now all online, edited and ready for practitioners to screen that off and learn what they want to learn at a distance. This year, we're focusing on neuroregeneration, as you pointed out.

We have workshops in Dallas every few months to help the practitioners get the confidence doing hands-on work there. They learn the didactic, and then they go to Dallas to learn the hands-on. We have a hands-on conference on April 12th through the 14th, on July 19th through the 21st, and on September 20th through 22nd. Those are all a prelude to our big conference in Orlando on November 8th through the 11th. Everything we're doing this year is focused on the brain, the purpose of neuroregeneration.

JM: I only wish the Academy existed when I was in the process of learning about natural medicine. It would have certainly expedited the process, because – I'm sure you did the same – back then,

the only other option was to go traipsing around the country at these events every weekend or so to learn in better detail. Because this is information that's not taught in medical schools. That's by design. I mean there is a really sophisticated and clever strategy by the pharmaceutical company to exclude this type of information from the curriculum, because it's a direct threat to the pharmacological model of using Band-Aids, expensive Band-Aids, to treat the symptoms.

LC: Sure. If you use enough treatments to cover up the symptoms, the patients sometimes will say, "OK. I'm OK," and then they go about their usual bad habits and bad lifestyle. Then over time, finally, they get to the point where there's no symptom treatment that'll work, and then [they] have to seek integrative medicine.

JM: Yeah.

LC: With integrative medicine, we tried to look at the causation to start with and see if we can resolve the causation of the illness. Once the causation goes away, usually the illness goes away.

JM: Yeah. Just one more plug for ACIM too. First of all, if you're watching this and you have a clinician who you're visiting, a healthcare professional, who has any mild interest in this, I would strongly encourage them to attend and get involved with ACIM. But you don't just have to be a healthcare professional. If you are a really interested layperson, if this is one of your passions and you really want to seek information on how to get healthy, and even apply it to your local community, then this is something you need to seriously consider.

I am reminded of the story you've shared in the past, where you had treated a woman, a housewife, from South or Central America, who had severe back pain, crippling and debilitating back pain. You helped her out and fixed it and was out of problems. She was so impressed that she wound up getting the training at your organization, your academy, and then went back to her local community. All of the physicians there, or the vast majority of them, were referring the patients they couldn't get better to her. She was getting them better.

LC: That's right. Yeah. I think that that's feasible with most lay public that are reasonably intelligent. They can learn and apply and learn and apply, and become, basically, wellness coaches – that's what we call them. We have a core wellness coach program through the academy with 70 hours of training. People who go through that, I believe, are better trained than most other health coaches out there in the community right now.

JM: Yeah. I'm confident. There's no doubt in my mind that this allied healthcare alternative, where we have individuals who are not compensated at extraordinary high levels like most physicians are, and because of that high compensation and the extensive amount of training that they have to have, they can only afford to spend a few minutes with you.

You cannot change the foundational causes of a person's illness in five minutes. It's physically impossible. You've got to spend some quality time. That's what these coaches can do, so I think it's an absolutely critical part of the equation to heal, really, the foundational issues that are contributing to all of the chronic degenerative diseases that our population is suffering with.

LC: Yeah. I think every integrative practitioner needs to have half a dozen or more wellness coaches working with them to hold the hands of the patients until they get well.

JM: Someone has to.

LC: Yeah. Because it's just too much for a practitioner to try to do it.

JM: It's impossible. It really is. Having said that, let's give a little taste to anyone who's seeking to attend the event in November in Orlando. Why don't you start us off with some of the highlights?

LC: In November, we're going to be talking about things that could be done to regenerate all types of neurological conditions: from Alzheimer's and dementia to autism; from multiple sclerosis (MS), amyotrophic lateral sclerosis (ALS), Parkinson's disease to some of the other less severe conditions, like the neurological effects of fibromyalgia. And also, the conditions that are even less common, like reflex sympathetic dystrophy and peripheral neuropathy and so on.

We also are going to focus on what can be done to help people who are given no hope, who have chronic psychiatric conditions, like post-traumatic stress disorder, psychosis, neurosis, insomnia and all that other stuff. We're going to cover the gamut in the conference in November.

JM: Excellent. Why don't you address some of the strategies that are going to be discussed and how effective they've been? Because the neurodegenerative diseases and the psychological issues are just pervasive. Almost everyone watching this has had some experience with that or know someone who has.

LC: Yeah. The tendency of the American public is to look for a magic bullet. But, really, for neurological diseases, I haven't found a magic bullet. There's a lot of very important pieces. I call those the foundational pieces. That has to be diet, removing electromagnetic fields (EMFs) from the patient's surroundings, to get the patient to doing physical activity, as well as brain games. There are a lot of other emotional issues that impact on chronic neurological conditions that we need to address as well. We will be talking about those kinds of things.

For diet, for example, the less inflammatory the diet, the faster the patient is going to get well, because the inflammation is almost always a contributor to what's going on in the patient's neurological system. If you can reduce the inflammation, then the patient's going to get better faster. The most inflammatory of all foods is probably sugar, followed by some of the omega-6 oils, fats and some of the arachidonic acid-containing products.

If you can get rid of a lot of that stuff that causes inflammation, then the patient's a whole lot better. For example, eating a ketogenic diet with clean fats and oils, doing some modified fasting throughout the week and getting rid of the inflammation-creating things – sugars, omega-6 oils, the peanuts, peanut products that have high arachidonic acid, and so on. The combination of all those things can make a great start in getting a patient's neurological condition improved.

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JM: Now, you're a physician who is sought out by those who have seen many other physicians and haven't really gotten better – really similar to Dr. Dietrich Klinghardt. People see you from all over the world. You've been doing this for many decades. I'm wondering if you could share a few stories of people you've seen with neurodegenerative illnesses and some of the strategies you use to get them better.

LC: One of the most interesting stories was at about 1988 or 1989. I had a colleague who said he had a father in a nursing home in Louisiana who had advanced Alzheimer's and dementia. He was a full-care case. In the morning, when he would wake up, the nurses would have to get him out of bed, dress him and feed him. He was always pooping in his pants and peeing in his pants. He couldn't remember the names of the nurses, the family members or anybody.

He said, "Can you help him?" I said, "Well, can you bring him?" He said, "No. I can't really bring him to Dallas. But can you give me some ideas of things that will help him?" I said, "Well, the problem is it's going to take a lot of intervention probably. Getting that to happen at a nursing home is not likely to happen. He said, "I'm pretty sure it will happen, because the head nurse of the nursing home has a mother, just like my dad, with severe dementia. She wants to see if what I try on my dad works, so that she can try it on her mom. That might work."

Anyway, I gave him this regimen: dietary changes, cleaned up the diet, some supplemental nutrients and proteolytic enzymes 30 minutes before food, magnesium, vitamin D3, tocotrienols, tocopherols – lots of supplemental nutrients – bacopa monieri, herbs, other homeopathics and some things to get the metals out. He said his dad used to have mercury fillings but he had them removed. But, obviously, he still had lots of mercury in his body, so we gave him things to pull that out – chlorella, some homeopathics and some dimercaptosuccinic acid (DMSA) and so on.

I said, "You need to get the dad out of bed and walk him every day. Get the nurses to do this. Get them to play brain games with him." He called me back about four months later. He said, "Well, I've got to give you an update on this." I never saw the old man. I just talked to the son. He called me back and said, "Well, my dad now, every morning, gets out of bed, dresses himself, feeds himself, does not poop in his pants anymore, and does not pee in his pants anymore. He walks around with the nurses and helps them take care of the other patients in the nursing home. Then he sits down and plays cards with the nurses, and sometimes wins."

JM: That's a pretty dramatic shift.

LC: Yeah. It's a pretty big shift in just four months' time, without ever seeing him. But we've had lots of other cases like that with dementia.

JM: Did the chief nurse put her mother on the program regimen? Did she get better too?

LC: She did, quite a bit. I never talked to her.

JM: It's pretty amazing. These are fairly foundational principles. They have dramatic influences on helping catalyze the recovery capacity that we each have. It's just dramatic when you see those things.

LC: Yeah. The first boy who I ever treated with autism was seven years old and still without speech and no socialization skills. His dad was a restaurant owner who had gone back to naturopathic school to try to learn something to help his son, because all the allopathic doctors said, “There is no hope for your son. He'll never graduate high school. He’ll never go to college. He'll never hold a job. He’ll never get married. He’ll never have children. He’ll never, never, never, never.” I said to the dad, “I really admire you for doing what you're doing to try to help your son. I want to help you.”

He and I worked together on the son. The son graduated high school. He was speaking within a year or two. He graduated high school at 18. He went off to college. He played football in college on a scholarship, and made Bs in college. He finished college and went to learn how to become a massage therapist. He fell in love after that. He got married. Now he has two children. He is now helping children with autism recover from autism and other adult patients with neurological disease recover from neurological disease.

JM: That sounds impressive. But, Lee, you are too modest, because there's more to the story. I've met this individual. His name is Brian. He is a super fit stud, and literally one of the healthiest people who I have ever met.

There is a very objective test that one can use to measure the autonomic nervous system and a variety of other variables. It’s called HeartQuest. It's an expensive heart rate variability program developed by some Russian geniuses. It put together tens of thousands or hundreds of thousands of individuals and correlated that and compiled it with some very interesting things. Brian scored virtually a perfect score. From being an autistic child at 7 to someone who's one of the healthiest people in the United States, it’s a pretty dramatic improvement.

LC: Yeah. He is a remarkable young man. After his dad helped him get to the point where he was able to do a lot of things for himself, he became highly motivated to do those things: to eat a clean diet, to do a physical activity, to drink enough water, to get enough sleep, all those things. He lives right.

JM: Yeah, yeah. It's just a dramatic example that if you apply these principles, they work. I mean nothing's 100 percent, but it’s going to push you in the right direction. Ultimately, you're going to see some improvement.

Although this event is going to be on the neuroregeneration and rehabilitation, there are some other dramatic examples of the effectiveness of these strategies. I think one of them that is most impressive is the organ transplantation. We have a large number of people waiting on the list for primarily kidney transplants, but also heart transplants and liver transplants. You name them.

To me, that's sort of the end stage where conventional medicine has failed miserably. The only hope that they have is to give them a new organ from someone else, which, if you didn't have to give them the anti-rejection drugs, would probably seem like a good strategy, but the rejection drugs that they have to take, otherwise they will reject the organ and/or worse die immediately from infection and rejection, then they're going to die prematurely from the drugs. There's just no

way around it. They will radically decrease your life expectancy. That is just the nature of the game.

I was wondering if you could share a few of the stories of individuals who saw you. They were on the list to receive an organ transplant, and then you suggested some interventions. Share their stories.

LC: Yeah. One that comes to mind was a physician, who was in the hospital in congestive heart failure, on the heart transplant list, with an ejection fraction of 13 percent. Now, when you get below 15 percent, they would say there is no chance of survival, except with a heart transplant.

JM: Wait. Let me interrupt you here. Excuse me. For many people, this may be the first time they've seen you and they don't know you. "Who is this guy? Dr. Lee Cowden?" Aside from being a physician, you were also an interventional cardiologist for many years. That was your primary specialty before you burned out and realized that there has to be another way. I mean you're speaking with a good deal of professional expertise in this area.

LC: Right. Anyway, I evaluated this physician. He had a variety of causations, but what I found with congestive heart failure and cardiomyopathy is that almost 100 percent of them have emotional brokenheartedness as a primary foundational cause. We worked on that.

He has a lot of them do energetic evidence of a lot of heavy metal in men's hearts. We worked on getting the heavy metals out. He had already had his mercury fillings out previously. I gave him a variety of nutrients, proteolytic enzymes 30 minutes before food with water only, to break up the fibrin inside of his body. I gave him magnesium malate. I gave him coenzyme Q10, carnitine or acetyl carnitine and d-ribose and some Hawthorne berry and a variety of other herbs and nutrients.

In three months' time, he was back to work full-time, jogging 10 miles three days a week and had ejection fraction of 45 percent. Now, normal ejection fraction is 55 to 70 percent. But considering this guy was supposed to not be able to survive except with a heart transplant, I think that 45 percent is pretty good.

JM: In three months?

LC: Yeah. Three months. The last time I heard about him, he's still doing the same way, still doing the long work hours and doing great. This is not a temporary effect. This is a long-term effect.

JM: Was there any other contributing factor aside from the emotional components? Did he have some obvious external contributing factor that contributed to the cardiomyopathy? Or that was just it?

LC: No, no. It was nutritional deficiencies. The studies show that if you're 50 years old in the United States, you have a 50 percent chance of being deficient in your production of coenzyme Q10 in the body.

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Without CoQ10, you can't make adenosine triphosphate (ATP) in your cells. You can't have energy for your cells, including your heart cells. The heart, because it's such a high-energy demand organ, is when it's going to play out on coenzyme Q10 production and ATP production first. Anyway, statistically speaking, he was over 50. He was 55, I think, at that time. I said, you know, he needs to be on CoQ10, as do most of the people in the United States over 50 years of age.

JM: Or ubiquinol, which is the reduced version of CoQ10. Same molecule, except it's greater.

LC: Yeah. I found that I can do either, as long as I give enough antioxidants to reproduce the –

JM: Reproduce the CoQ10.

LC: The ubiquinol. Anyway, he had this major brokenheartedness over the death of a loved one. We had him think through that, talk about that, work on that, resolve that through some kind of the principles that [inaudible 20:58] followed after him. But using that – I call it the "talk therapy" – we were able to resolve the emotional brokenheartedness enough so that he was able to start releasing the heavy metals and the microbes from his heart, mercury and viruses in his heart. We gave him herbals to get rid of the viruses.

But the biggest step in getting rid of the microbes was to get rid of the heavy metals. The biggest step in getting rid of the heavy metals is to get rid of the emotional brokenheartedness. Since then, I've had a few dozen other patients with cardiomyopathy with ejection fractions less than 15 percent who have all, except one, followed my advice and gotten completely well and gotten off the heart transplant list, who are now still alive and well years later.

Now, occasionally, you'll have a patient. You'll tell them what to do, and they'll just say, "I don't believe that," or "I'm not going to do that," or whatever. He's six feet under now. But all the rest have listened and they're still doing well.

JM: I know there was another prominent physician who almost everyone listening to this would know, who consulted your advice. I think instead of being – He's not six foot under now, he's still alive as I understand it, but he elected to have the heart transplant. Yeah.

LC: Yeah. Some doctors who have gone through the conventional training can't unlearn what they learned in conventional training, so they're stuck basically to following that path. Fortunately, when I was in medical school – The first couple of months I was in medical school, I became ill.

I followed the advice of the chairman of three different medical school departments. I continued to remain ill. Thank goodness, my wife's grandmother came to visit us and she took pity on me. She took me down to the health food store and got me on some vitamins, minerals and herbs. I got well in a very short period of time.

I learned to take with a grain of salt everything I learned in medical training after that. I also started reading, when I had any time to read, nutrition books, herb books and stuff like that, instead of spending all my time reading the medical journals.

JM: Absolutely. Literally, the grain of salt would probably be useful because most of us are not getting enough healthy salt in our diet, which is we're told mostly by conventional authorities that low salt diet is the way to go, especially with heart disease, but nothing could be further from the truth.

LC: Yeah. But the saving of organs can be done with all kinds of organ dysfunctions. I remember a man who came from Jerusalem to see me like maybe 20 years ago. He had been on hemodialysis and finally got a kidney transplant, and then he rejected the kidney transplant. Then he got a second kidney transplant. He's rejected the second kidney transplant. Then he got a third kidney transplant, and that's when I saw him. I said, "I think you better change your path, because you're eventually going to run out of kidneys."

JM: Was he in the United States?

LC: Yeah, yeah. He was from Jerusalem, but he came to the United States for evaluation and treatment. Anyway, he was here for two months. I evaluated and worked on him. I detoxified him. It got rid of the emotional conflicts and so on. He stopped rejecting his kidney. He went back to Jerusalem. I talked to him about 10 years later and he was still with that same kidney and still doing well.

JM: Do your strategies have anything to do with counteracting the immune-challenging side effects of the anti-rejection agents?

LC: Yeah. A lot of times the patient will have an immune reaction against this foreign material, but you can actually laser detox to reprogram the immune system to stop doing that. When you do that, then the body starts seeing those new organs more like cells. We also use the same laser detox process to get rid of autoimmunity-type reactions to hormones and neurotransmitters and organs and other stuff. It's quite effective.

JM: Yeah. It doesn't sound like something that most people would hear about laser detox. It is actually quite a simple process. This is something that you teach in the academy. As a clinician, you can learn this and apply it to patients. You too could have patients who you can get off the transplant list.

LC: Yeah. We have a lot of different tools in our toolbox in integrative medicine. Allopathic medicine only has very few tools.

JM: They've got a lot of drugs, but I guess if you put drugs as a tool, they are pretty limited.

LC: Yeah. If you lump all the drugs together, then it's one-fourth part of their toolbox. That'll give them about three more parts of their toolbox that they can rely on.

JM: That's a good analogy. Thank you for framing it like that. Because it gets confusing when you have literally thousands and thousands of drugs. But, really, it's only one tool.

LC: Yeah, yeah. One tool. In integrative medicine, we have literally hundreds, if not thousands of tools. Even if you lump them together, we have hundreds. If you're a splitter, then we have thousands.

JM: Okay. I think it's time we get people a really good, simple, free strategy that they can use to get healthy, like everyone watching this. It's something you've taught me. I've got to warn you, because it's free, the vast majority of people watching this will not do it. Because they think, "It's free, it's not going to work. Why the heck should I do this?"

LC: That's right.

JM: I'm going to have you go over it. It's something I've been doing recently. I noticed that it's been enormously beneficial to decrease my sleep latency. When I do it before I go to bed, I go to sleep real quickly. Your mind doesn't race and it's just really interesting. It's something you do when before you go to bed and before every meal. Why don't you review this? What's the name of this technique?

LC: I just call it the Stress Reduction Technique.

JM: SRT.

LC: Really complicated. But if you do this with your left hand –

JM: It's important that it's left. You can't do it with your left or right. This has to be the left.

LC: Well, you can do it with the right, but it takes a lot longer to work. That's why we do it with the left. The left side of the body entrains the right side body quickly. The right side of body entrains the left side of the body very slowly.

JM: Okay.

LC: But if you grab the left index and thumb with the right hand like that, and then you put that down on your lap, and you start breathing deeply through the nose, hold for one second, breathe out through the mouth, in through the nose, out through the mouth, and keep breathing like that, as you close your eyes and visualize yourself in the most relaxing place that you've ever been, when you're visualizing, you're not visualizing just with sight, but with sight, sound, taste, touch and smell. You're remembering that place with all of the senses.

You do that for about four minutes or five minutes before every meal. The reason to do it before the meal is it will improve the digestion, improve the absorption, improve the immune function and relax the body. If you do this before bedtime, which you should, it'll improve how fast you fall asleep, how deeply you fall asleep, how much healing of your body you get while you're asleep and your immune function during the night. For very little time, energy and effort, at no cost, you get a lot of improvement.

People will say, “Why do you hold the index and thumb?” On the index finger, on the ring finger, on the dorsal surface, is the energy pathway for the nervous system. On the palm surface is the energy pathway for the neurotransmitter system. On the thumb, on the outer aspect, is the pathway for the lymphatic system.

Everybody who is chronically stressed has stressed-out nervous systems, stressed-out neurotransmitters and clogged up lymphatic systems. When you hold with your right hand, you're taking the excess energy that's usually in these other pathways, and dissipating that into the pathways that run on the palm surface of your right hand.

If there are areas or pathways that are deficient in energy, then energy comes out of the pathways in your right hand. It goes into the pathways in your left hand. The principle is balancing the energy pathways.

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The Chinese have said for 3,000 years that disease develops whenever energy stagnates. If you stagnate energy, then you're going to have all kinds of problems, including maldigestion, insomnia, etc.

JM: Yeah. I would strongly encourage everyone to do it. To emphasize too, because you briefly went over it, but it's for people who are stressed under autonomic sympathetic overload. From my experience – I want you to elaborate on this, because you're in the trenches still and you see patients all the time – but it's like almost everyone is in sympathetic overload.

You could objectively confirm this through heart rate variability testing or the HeartQuest. I mean it's like hardly anyone who's not – I mean they have like maybe a perfect score on artery variability, but if you do a deep dive and you check the autonomic balance, they’re in sympathetic overload.

LC: Yes. I agree with that completely. This helps, probably more than anything I've found, to balance the sympathetic and parasympathetic nervous system. The sympathetic is what causes the fight-or-flight. It’s either fight the tiger or run from the tiger. The parasympathetic, which is to balance out the sympathetic, is responsible for digestion, relaxation, sleep and the calming parts of our nervous system. So many people have almost excessively, almost exclusively, sympathetic and almost no parasympathetic function.

JM: I want to progress onto this too and share my personal experiences with biohacking sleep. I use the OURA ring, O-U-R-A. By the time this is aired, it'll be Generation 2. I like it because it has a near-infrared light, so it doesn’t interfere with your sleep. But it also can be put into airplane mode, so there are no EMFs, which is great. It gives me an objective assessment of exactly how good my sleep is, not only how long I sleep when I wake up, but if I'm tossing and turning, what my heart rate variability is, my lowest heart rate, my deep sleep, my rapid eye movement (REM) sleep, my light sleep, and the amount of time I'm awake.

Most people, in my experience, as they get over 50 or 60 years old, their deep sleep goes to heck. They just lose their deep sleep. This is a major challenge if you're interested in staying healthy,

because in deep sleep, you restore and repair your body. If you're not even in deep sleep, you are absolutely compromising your health and exposing yourself to risk in the future.

I was challenged. I was no different. My deep sleep, in many nights, was 0.0 minutes. I did all the basics. You couldn't see anything in my bedroom. It is absolutely pitch black, but then I realized I've got to turn off the electricity. I turned off the electricity, and that helped a little bit. I would maybe get it up to five or 10 minutes. But then you were at my house a few weeks ago and stayed over, because we were both attending a local event for continued training – You're still a student. I'm still a student.

LC: That's right.

JM: We continue to learn. We had the chance to go into this in further depth. This is applied to the neuroregeneration that's happening at the event in Orlando. I didn't think I needed melatonin because I go out on the beach pretty much every day. I expose myself to bright sunshine and pitch black at night. I thought that's all you needed to optimize melatonin. Boy, was I seriously confused.

You helped me understand that taking 5-hydroxytryptophan, 5-HT, not tryptophan because it's hard for it to pass through the blood-brain barrier. Plus, the 5-HT is already one metabolic process. But taking it before you go to bed has been enormous, because it converts to serotonin, and serotonin goes to melatonin. My deep sleep now is up to about 30 minutes a night.

I'm still in the process of actually putting shielding paint in my bedroom, because turning off the electricity wasn't enough, as assessed by measuring body voltage in electrical and micro volts. I'm actually doing that this week. Hopefully that'll improve it further. But I'd like you to comment on the 5-HT, because it was 100 milligrams about 20 minutes before bed, but it has been dramatically impressive in my deep sleep.

LC: Yeah. As we age, the enzymes that convert tryptophan, which you could find in turkey, pumpkin seeds and things like that, the tryptophan gets converted to 5-hydroxytryptophan. 5-hydroxytryptophan is converted to 5-hydroxytryptomine, which is also called serotonin. 5-hydroxytryptomine finally gets converted into melatonin.

However, as we age, the toxins pile up in those enzymes and prevent those enzymes from performing the work that they need to do. You have, over time, lower and lower levels of 5-HTP, serotonin and melatonin, even though you're doing everything else right. So, yes, we have to continually detoxify, and also, sometimes, support those enzyme systems by what we call excessive precursor of supply.

You boost up the building blocks to make the final product. Melatonin is not very well absorbed out the gut. Some people take melatonin, but some people have kind of a paradoxical response from that. But if they take 5-hydroxytryptophan, they can actually make as much 5-hydroxytryptamine as they need to fairly easily, and then they have the serotonin and melatonin.

JM: Yeah. Many people are deficient in serotonin. In fact, the most common antidepressant is SSRI serotonin reuptake inhibitors. Purportedly, the intention is to increase serotonin in the synapses.

LC: Right. Yeah. Serotonin is very important for mood and so on. But as you pointed out, if you don't have enough of it, you can't make melatonin. Melatonin is the most important antioxidant nutrient in the brain. This is more important than the antioxidant nutrients that we swallow by mouth, whether that's [vitamins] C, E or any of those others. It's more important than glutathione, more important than superoxide dismutase, because it is fat-soluble. It gives the best protection of our neurons from free radical damage. We need a good release of melatonin through the night to calm our brain and to heal our brain.

JM: You still would integrate that on a basis of what I was already doing, which is complete blackness at night, cool room – high 60s, low 70s (degrees Fahrenheit) – and bright sun exposure outside in the daytime.

LC: Yeah. Absolutely. Don't neglect the basics, but add this all to the basics.

JM: Yeah. It's been a game-changer for me. I'm really, really impressed with it. The dose is 100 milligrams. You have to be careful you get the supplement from a good company, because there's a lot of ones out there. Fortunately, you were with me, so we went to store. You have a really interesting energetic test that you perform just to screen for any toxins in there, so I found a good brand. I'm using that and [I'm] very pleased with it.

LC: Yeah. One other thing is that the enzyme that converts 5-HTP to serotonin requires vitamin B6 as a cofactor. If you're taking 5-HTP and not seeing results, that means you probably need to take some coenzymated B6 sublingually in order to get enough of the active form of B6 in there to complete the conversion from 5-HTP to serotonin.

JM: PHP?

LC: Yeah. P5P.

JM: P5P. That's it.

LC: Pyridoxal 5 phosphate is the active form that you need.

JM: Perfect. I apparently don't need it because it seems to be working really great. One of the other supplements you mentioned with the individual with the congestive heart failure was magnesium malate. There are literally dozens of different types of magnesium supplements. I use magnesium threonate. Actually, Dr. Klinghardt likes that too because not only is it a magnesium supplement, but we found out that a big challenge in many of these neurodegenerative diseases are retroviruses. Magnesium threonate seems to have some retroviral activity.

LC: Yeah. I wanted to question about the magnesium malate too.

JM: Yeah. No, I like the threonate. It's kind of pricey, so I don't use that as a salt form. Also, threonate is a neurotransmitter, in addition to being an amino acid. Theoretically, we can't get overloaded on any neurotransmitter and throw other things out of balance. That's why I like to alternate between malate and threonate and [inaudible 39:16] formula of magnesium 2ATP and [inaudible 39:17] formula of magnesium orotate. I use a variety of different types of magnesium products. Usually a patient will not ever get used to one.

LC: Yeah. That's a good strategy, because you just don't want to stick to using one magnesium. You want to switch it up, because your body will be sensitive. But I'm particularly fond of magnesium malate, because malic acid is CREB citric acid cycle intermediate and actually helps generate more ATP. I'm in the process of putting together a comprehensive sleep article, discussing some of the things we just reviewed. But also, in my review, it appears that magnesium malate at bedtime seems to be a good strategy to help sleep. I'm wondering if you can comment on that.

[-----40:00-----]

JM: It is. Yeah. Often, people in this country are deficient in magnesium. U.S. Department of Agriculture says that's 57 percent of the population of the country are deficient in magnesium. If they say it's 57 percent, it's probably at least 87 percent.

LC: I was going to say [that]. You're absolutely right. That's the bare minimum.

JM: Yeah. Because they always grossly underestimate nutritional deficiencies. What you point out is absolutely true. That the malic acid is a rate limiting step in the Krebs cycle inside the mitochondria that makes the ATP energy for ourselves. If we are deficient in malic acid inside the cell, and you take a magnesium malate, then the malic acid is drawn into the interior of the mitochondria. It drags the magnesium there also.

The magnesium is absolutely essential in the mitochondrial ATP production as well. About 50 percent of the metabolic enzymes in the body require magnesium as a cofactor, so it's a really important nutrient. Not just for that, but also for conduction of impulses through nerves and contraction-relaxation cycle of muscles: heart muscles, skeletal muscles, etc.

LC: Yeah. There's also some compelling emerging literature that suggests magnesium may be a useful strategy at lowering the side effects or the impacts of exposure to EMFs, not that that should substitute or ever replace your strategy of lowering your EMF exposures. But many, if not most of your exposures, are going to be unavoidable, just because we live in the 21st century. It's good from that perspective. I think if that observation and implication is true, then your 87 percent suggestion probably jumps up to about 99.87 percent of us being deficient in magnesium.

JM: Yes.

LC: Because that would have been in the 20th century. By 20th century standards, when we didn't have as much EMF exposure as we do now.

JM: Yeah. One thing with muscle testing is that magnesium is lowest in the people who have the highest EMF exposure.

LC: Interesting. That is very interesting. That confirms what the initial research findings are suggesting. Yeah. What I think is happening is I think that the people are wasting magnesium through the kidneys, into the toilet, because the stress of the EMF and other effects that EMFs have directly on the kidney tubules and other cells in our body. But when the magnesium gets low enough, we know that the body becomes depleted in potassium intracellularly.

Intracellular potassium is the main thing that maintains the charge across the cell membrane and what maintains the health of the cell and the conductivity of the cell for neuronal conduction, as well as muscular contractions and so on. When you get in blown-up shape with magnesium, your bad shape with potassium –

JM: I think magnesium is the No. 2 intracellular ion.

LC: It is.

JM: And then potassium is No. 1, and magnesium No.2. That's the one-two punch.

LC: Yeah. What happens is that the kidney tubules selectively hold on to magnesium when magnesium is deficient and wastes potassium through the kidney and into the toilet.

JM: That's the mechanism. Okay. Interesting.

LC: Yeah. If you don't have enough magnesium on board, you're also wasting potassium into the toilet. You can give a patient – If a patient is deficient in magnesium and potassium, you can give them potassium by mouth until the cows come home, and their potassium level won't go up. But once you get their magnesium repleted, then the potassium level would go up.

JM: That's a pearl, folks. I've been around for a while so I can recognize them, but I want you to repeat that. Because, Lee, you're so mild-mannered. You say these things and there's just like wisdom coming out of your mouth and people just don't appreciate it. This is a pearl. Say it again slowly.

LC: Yeah. If a person is deficient in magnesium and potassium both, you can give them potassium in large amounts on an ongoing basis, and their potassium levels never come up. But if you give them magnesium and get it repleted, and then give them potassium, then their levels come up. That's because the kidney tubules selectively hold on to magnesium and waste potassium into the toilet in order to retain the magnesium. Because, apparently, the body sees the magnesium as being a more vital nutrient than potassium.

JM: Yeah. Thank you for sharing that. It's going to help a lot of people. That's not something that's commonly appreciated. That's why I had you repeat it.

LC: Yeah.

JM: I really want it to stick home to people.

LC: Yeah. There's one more thing. It's that a lot of people in the United States are on some form of diuretic medication, either for blood pressure, swelling of their legs or for some other reason. When you take a diuretic, it has a magnesium- and potassium-wasting effect on the kidneys. They're wasting both magnesium and potassium into the toilet. But most doctors only give potassium. They don't give the magnesium.

JM: Okay. That's a good piece of information. Now, there are a lot of people watching this. If they don't have it directly, they may have someone they love who's on the diuretics. What do you do to treat the underlying cause, which is the high blood pressure or the swelling in the extremities? Because there are lots of different alternatives. What are some of the most successful that you know of?

LC: Let's talk about swelling of the legs first. Very often, the swelling of the legs is not a diuretic drug deficiency. But instead, it's a congestion of the lymphatic system or a toxicity of the kidneys, so the kidneys are not processing water the way they're supposed to, so the tissues retain it. Sometimes, it's just severe toxicity in the tissues.

One of the ways that the body protects itself from toxic overload is to allow water to go out into the tissues where the toxins are to dilute the toxins. If you have enough toxicity in your legs, then you're going to have fluid accumulation there to try to dilute those toxins.

The lymphatic system can get clogged up for lots of different reasons. The lymphatic system is commonly clogged up in people in the United States, because people in the United States have a love affair with dairy products and wheat products, both of which are mucoid-producing and produce thick sticky mucoid material in the lymphatic system, which clogs up the lymphatic system. But if they'll get rid of the dairy products and wheat products, then the lymphatic system becomes more fluid and able to clear toxins away from the tissues through the lymphatic system.

Some people do have such weak hearts that they can't pump blood around like they should, so they get a right-sided congestive heart failure, which is what we call it. The right ventricle is malfunctioning. A very common cause of that is coenzyme Q10 deficiency, which we talked about earlier.

If you take the CoQ10, you get your heart working better, emotional issues. You get rid of the brokenheartedness. If you have heavy metals in your heart, you get rid of the heavy metals in your mouth. Mercury fillings in the teeth are the most common cause of that. Then they get rid of the mercury in the body, which then helps the swelling to go away. Hypertension is a more complex issue in their need for diuretics. By the way, that still, from my understanding, is the No. 1 recommended drug for treating hypertension, thiazide diuretic.

JM: Diuretic. That's the first step, stage 1 treatment. You're right.

LC: But we know that the thiazide diuretics cause a chromium wasting into the toilet as well, which then creates the insulin resistance, most of insulin sensitivity. The insulin sensitivity raises the blood pressure more. That seems to be a pretty oxymoronic way to try to do that. We really need to try to find a better solution. Most people who have hypertension emotionally feel under pressure to do something or not do something. If they can recognize what that is and resolve that emotional conflict, their blood pressure usually goes down quite a bit.

Dr. Joel Kauffman, who's a PhD, wrote a book called *Malignant Medical Myths: Why Medical Treatment Causes 200,000 Deaths in the USA EACH Year, and How to Protect Yourself.* The chapter on hypertension is excellent, because he talks about how all the standard for treatment of blood pressure is based on not clear science, but based on pharmaceutical recommendations.

OK, so we're selling a lot more drugs for hypertension because the pharmaceutical reps will say, "At 80 years of age, you should have the same blood pressure as a 20-year-old." No. That's not true. If your arteries are all supple without any plaque formation, then it might be true. But there's not very many people in this country who have no plaque in the arteries when they're 60, 70 or 80 years old. If you get the plaque reversed in the arteries, then the pipes are no longer stiff, so then you don't have a systolic hypertension. You don't need the drug, because your blood pressure comes down just by getting rid of the plaque in the arteries.

You say, "Well, how do you do that?" Back in the early '90s, I was giving patients with advanced atherosclerotic disease proteolytic enzymes 30 minutes before food, clean diet, supplements, nutrients, magnesium, vitamin C, vitamin E, etc., and reversing 80 to 90 percent plaque in the arteries down to 20 and 30 percent plaque in the arteries in just three or four months.

[-----50:00-----]

We proved that with the ultrasound Doppler duplex imaging. If we can do that, then why are we doing what we're doing with open heart surgeries, carotid endarterectomies and all that other stuff?

It's because the people are not educated about what's possible. If they haven't been told that this could be done by their medical doctor, then they don't believe that it's possible. But unfortunately, there are a lot of things that the medical doctor doesn't know, because they weren't taught it in medical school.

JM: Let's give a little more details on the proteolytic enzymes. Because it's such an effective strategy, not only for decreasing the atherosclerotic plaque, but also for thinning your blood, so you don't have a clot.

LC: Right.

JM: You don't want to take the same one every day, because you'll develop resistance to it. This can be taken for the long-term. I mean your dad – Is he still alive? Your dad?

LC: No. He passed a couple of years ago.

JM: Okay. He was on a blood thinner and you put him on this. Why don't you share that story? And then tell us the details about how you select a proteolytic enzyme, because these are non-prescription items.

LC: Right. Yeah. His doctor placed him on Coumadin. He worked outside. He was always injuring himself and bleeding profusely when he did so. He said, "I don't want to keep doing this. Is there another choice?" I said, "Well, you have a condition where you probably should be on something to prevent clotting, but proteolytic enzymes would be less likely to cause you to bleed profusely if you accidentally injured yourself." He said, "I want to do that."

He started that when he was about 60, I guess. He lived to be 80. He was on proteolytic enzymes 30 minutes before food twice a day for 20 years, without any more clots, without any more of the symptoms for which he was being treated with the sodium warfarin or the Coumadin. Since then, I've treated several dozen other patients with the same strategy.

As far as I know, there's no peer-reviewed literature proving that this is so, but we have lots of anecdotal evidence. If you don't want to be on the rat killer, which is what is found in one of the rat poisons, the sodium warfarin, come off of that and go on your proteolytic enzymes and see how you do. As far as I know, everybody has remained plaque-free.

Now, the enzymes that I use for that purpose, probably the most effective, is lumbrokinase. It's also the most expensive. Lumbrokinase is made from the bacteria that lives in the gut of the earthworm. The next most effective is nattokinase, which is a fermented soy product out of Japan. The third most effective is probably serrapeptase, which is made from the bacteria that grows in the gut of the silkworm. After that, probably bromelain, which is from pineapple stems. Papaya leaf enzyme works pretty well as well, another plant-derived enzyme.

A person can be energetically tested for several of these enzymes to see which pair is the best pair and just rotate back and forth. Monday, Wednesday and Friday one, Tuesday, Thursday, Saturday and Sunday the other. If they do enough of those, then usually they'll have no clot formation.

Now, we're not talking about just big clots being the problem. Little clots are also a huge problem. A lot of people have chronic infection in the body, like dental issues, tonsils, sinuses or someplace else that have infection. The infection, wherever it is, in the sinus or elsewhere, is causing the body to produce too much fibrin.

Fibrin is a clot-producing agent. This fibrin can plaster itself up against the capillary walls, restricting the delivery of oxygen from the red blood cells through the capillary wall in the tissues, so the red blood cell can go all the way down the capillary bed and not deliver any oxygen into the tissues. If the fibrin is just one micron, one millionth of a millimeter, it's just a tiny amount of fibrin.

The enzymes that I talked about a while ago will strip that fibrin away and will allow delivery of oxygen through the capillary walls and the tissues. The tissues are no longer starved of oxygen. The tissues can go into aerobic metabolism instead of anaerobic metabolism. When you're in

anaerobic metabolism, you don't stimulate cancer growth. You don't stimulate microbial growth and so on. There are lots of benefits from that.

JM: Absolutely. That's some really golden advice too that can help a lot of people. There's no question, because the vast majority of people that you see – What would be your guess is the percentage of people over 60 who have atherosclerotic plaque?

LC: Probably 95 to 98 percent. It's high. I'm over that age. I had a recent evaluation. I have zero plaque.

JM: Yeah. Your sleep is really interesting. Because when you were at my house, you got in late and went to bed late, but you don't require as much sleep. I'm hesitant to point out because there's a large percentage of people who feel they follow in the same category, but it's really the very rare and – let me emphasize the word "rare" with strong bolding – exception to this case. I wouldn't think that you're part of that unless you can objectively document it through some type of confirmation. But you know, you sleep very efficiently. If you're sleeping efficiently, you need less sleep.

LC: Yeah. I would urge people to get sleep from 9 p.m. until they wake up spontaneously without an alarm clock.

JM: Yeah.

LC: That'll be six hours at least. For some people, seven and a half hours. For some people, nine hours. Whatever they need, then when they wake up spontaneously, then they can get up. But so many people stay awake from 9 p.m. to 11 p.m. or even midnight doing stuff that they could do when they wake up early morning before anybody gets up.

JM: Yeah.

LC: That's a much more efficient way to do it.

JM: Yeah. Go ahead.

LC: It protects your endocrine system. The hormone system detoxifies itself between 9 p.m. and 11 p.m., if and only if you're asleep. If you can get to sleep before 9 p.m., it can help to regenerate your thyroid, adrenals, gonads and so on.

JM: Yeah. I've been fortunate enough to be able to apply that. It's not easy. I know most people struggle with that, especially if they have a job. They get home at 6, 7 or 8 o'clock at night. "How could I possibly go to bed at 9 p.m.?" But if you're seeking to biologically optimize your life, that's the goal. I think to say anything less would be delusional. It's not easy to do, but definitely worthwhile. I have a conflict with my girlfriend. A lot of times I'm getting up in the morning at those times and she is just going to bed. There's something to be said for chronobiology. Maybe she has a different timeframe. But ideally, try to get to bed by 9:00 p.m.

LC: What I find is that the people who have the hardest time going to bed earlier at night came from parents who stayed up all night, okay? What happened, I think, is that the fetus inside the womb learned the wrong cycle of rest. Their parent was always up and active until midnight or beyond, and so the child does the same thing. If anybody listening is thinking about having kids, start changing your sleep pattern, so that you're going to bed by 9:00 p.m. That way, your child, when the child is born, probably will go to bed by 9:00 p.m.

JM: That's about all we have time for today. But I'm sure, if you watch this to the end, that you've been amazed at some of the wisdom Dr. Cowden has to share. That's one of the reasons why I hang out with him as much as I can and continue to learn. He's one of my primary mentors in helping me understand how the body works and how to repair it with simple, natural, typically inexpensive strategies.

If you have any interest in learning more or having your primary care clinician learn more, then there will be additional information further down on this article where you can have them attend the ACIM meeting in the second week of November in Orlando.

I don't recall hearing anyone who was disappointed at last year's event. It was really one of the highlights of the year for me. It is probably the best professional conference I attend and I eagerly anticipate going. Obviously, I'm speaking there. I'm really excited about this event.

LC: Yeah. At the end of the conference last year, I had at least two dozen physicians who came up at the end of the conference who said, "Even though I go to several conferences every year, and even though I've done that for many years, this is the best conference I've ever been to."

JM: Yeah.

LC: So that was quite a compliment.

JM: You're going to learn lots of tips like [what] Dr. Cowden shared with you, and not just from him, but from – How many speakers are there this year? Three dozen?

LC: Yeah. We're about three dozen speakers.

JM: Yeah. There's a large variety of individuals who you can gain wisdom from, who are really going to give you effective strategies to the conventional hogwash that is typically dispensed by conventional medicine.

LC: Yeah.

JM: Alright. Thank you so much. We hope we see you down there at ACIM in Orlando.

LC: Yes. Please come.

[END]