Unlocking Energy: Mitochondria’s Role In MS Progression Transcript

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Introduction to Dr. Karlfeldt

Welcome to another interview with the MS Autoimmune Summit. Now my next guest is Doctor Michael Karlfeldt ND, PhD. He's a board certified natural path.

He also has a PhD. Now he's devoted his career to practicing and promoting natural health. He's a high demand speaker, author and educator in his field.

Doctor Karlfeldt provides personalized naturopathic health care at his busy multidisciplinary integrative medical center, the Karlfeldt Health Center, in Boise, Idaho.

He treats the root causes of disease and strengthens the body's ability to heal. He's practiced medicine for over 30 years, is one of the leading experts in treating cancer.

He works to increase awareness about the natural ways to treat cancer. He understands how to support our natural immune function. He was the host of the TV show The Doctor Michael Show and Tru Health, body, mind, spirit and the radio show Health Made Radio.

We connected with international leaders in the integrative health arena. He's also the host of an internationally recognized podcast, Integrative Cancer Solutions.

With Doctor Karlfeldt now. Welcome. I know he has a lot of cancer expertise. He has a tremendous amount of expertise in integrative medicine to support health and vitality.

Welcome, I'm just so glad to have this conversation with you, Doctor Karlfeldt And I thought we could start with mitochondrial health and why mitochondria are so vital for anybody with M. S.

or a systemic autoimmune problem. Well, a lot of what a lot of people don't really understand to understand and realize that your brain, your neurons, I mean, they actually when you're just sitting still, your brain requires about 30% of all your energy consumption.

So nerves and brain, you know, have a huge amount of mitochondria. And what we're seeing is that, yes, we we know that a mouse is a myelination. It's an autoimmune condition.

Mitochondria and Autoimmune Disease

Immune systems that start to infiltrate and start to kind of degenerate. The the myelin sheath. But a lot of that is actually taking place due to mitochondrial dysfunction and lack of energy production.

And that is actually both within the neural cells, within the brain cells and within, actually the white blood cells. You know, the white blood cells, they they need energy.

They need to be able to kind of have all the ATP or the energy production that they need in order to be able to fight off the infections. And when they're tired, they get confused and they start to attack things that they shouldn't.

They may not make the wisest decisions. And that's that's kind of so that's why it's so huge to in addition to looking at how the, the autoimmune aspects of pressing immune system and just.

Yeah, yes, that's good to do. But what do you want to find out. Why is that taking place? You know, why is immune system functioning in the way that it shouldn't.

And that leads back to it is an energy deficit, you know, within the nerves, within the brain and also within the but the immune system. Okay. So bike Honda are important a really important to the brain.

And probably also the spinal cord, the peripheral nerves, all of the nerves. What makes the mitochondria struggle so. Well? So it is so we're used use if we look at the cell, you know, we see the cell.

It has a cell wall membrane and that protects it from what's going in and out. And it is the same with the mitochondria. It also has the cell wall membrane.

And but it's not as solid and strong and protective as the membrane around, you know, the cell. So that that mitochondrial wall very easily gets impacted by inflammatory things.

Yeah. It could be infections, could be heavy metals, could be chemicals in they they've seen. Excuse me. They seem like things like Epstein-Barr heavy metals, you know, are big factors.

But that's not that's not the only thing. You know, the other viruses are the pathogens that can really impact the mitochondrial function. So we got to find the, the, the root cause, you know, what is causing that, that impact on the mitochondria.

But we also want to understand, you know, what is happening within the mitochondria that is creating that dysfunction. We're seeing, you know, people with MSA see the mitochondria is kind of like you have train station.

You had these electrons had moved through from one stop to the other. And as it's moving, it's producing energy. And within the mitochondria, people with that mouse, they see that there's a dysfunction in the movement of the electrons there.

And because of that dysfunction, it actually then leads to production of what's called reactive oxygen species or oxidative things. You know, things that I mean, we know oxidative things from like metals.

Yeah, iron rusting, you know, that's an oxidative stress on that metal. It's the same thing that happens and within the mitochondria. So when you have that dysfunctional mitochondria it leads to production of these different reactive oxygen species.

That puts more stress on the mitochondria, which actually creates a vicious cycle in a way. And then we also have in people battling M. S.

Genetics, SNPs, and Root Causes

, we see that the production or the creation of mitochondria is not functioning as as well. So they actually then have less of these energy factories, you know, the mitochondria than normal cells.

As we know, again, nerve cells require a huge amount of mitochondria. So if there's a deficit, if they don't have them enough, then they can't perform their function.

They can, you know, clean out debris, toxic debris. They can fight off infection inside. So it's a lot of work they can't do. And because of that and trash accumulates and creates more inflammation and then promotes actually more of the kind of death of that cell just because the mitochondria is not functioning the way that it should.

So the mitochondria are not working as well. And then over time, there are fewer mitochondria and all of that strain probably adds to why there are more relapses, more, new lesions, more accumulation of disability.

Would that be an accurate description? Yes, that's a very good description. And then we get a look at, you know, what are some kind of angles that we can go after.

So we know that there's some light a candle deficiency in miss. And we know that there are factors that can

contribute to that. And both we have genetics.

So we want to obviously look at genetically what are some weaknesses that exist. And there are great labs that you can run for that and then support those what's called genetic snips, you know, with specific nutrients and certain hang on, doctor carpooled.

Can you explain, what a snip is? Actually, our listeners will know. Yeah. So it is a kind of a short version. There's a single new type, you know, nuke type protein.

So it it has to do with. So when we, we get genes from our father and from mother, and if they are perfectly fine, then everything functions the way that it should.

So but let's say one of those genes, you know, maybe from your mother, maybe from your father, or maybe even from both, then if they are not as functional or they're there is kind of like a little handicap, you know, a genetic.

Yeah. That, that they we get them from our parents. And because of that then cellular functions are different things that happens within the cell are not going to be able to function the way that it needs to, because we we don't have the the genes that are appropriate to be able to fulfill that function to its fullest.

You know, common one is like a lot of people know MT FA. Yeah. Which relates and to how we detoxify and also relates a lot to the production of different neurotransmitters.

And you know, so if we are then deficient in that, we're not going to be able to move toxins out as well as we we should. And then by identifying then that genetic snips so that genetic dysfunction that we have, then we can then see what are some of the nutrients that can then support that function to optimize.

We know it's dysfunctional, but if we support it with nutrition, then we can then optimize that genetic function. And so obviously if we deal with an autoimmune condition, then there is a big likelihood that there are some genetic dysfunctions that drove that process, in addition to things that you may have been exposed to.

Infections, COVID, and Mitochondrial Stress

Okay. So the wild type genes work well. The mutation that has a slight alteration of the gene, single nucleotide polymorphism Snip. You can test for that.

And then that gives you some clues as to a higher dose of the particular nutrients may overcome that snip. So again super helpful to be aware of that.

So we've heard about genetic variants. The snips we've heard about heavy metals. We have heard about probably poor nutrition is part of this infections.

You've mentioned Epstein-Barr. I'm thinking the coronavirus, which we're all much too painfully aware of, led to some persisting symptoms for some folks and became a much more troublesome disease.

For some individuals, are those sort of the big categories as we think about things that impact how well my mitochondria can work. Yeah. So so those are great and kind of going back to coronavirus.

And obviously that's something that that hit the world and a very huge yeah on a huge level. And so we we see with the coronavirus and that really I mean it impacts the mitochondria directly.

You know the coronavirus you know. So if you have these kind of long Covid symptoms, a lot of times that is due to that downregulation of the mitochondria.

And so that becomes even more important, you know, when you deal with them with Ms.. And then also we see that it also creates inflammation along the endothelial lining.

So they have then that kind of transport of nutrients to the cells in order to be able dense fuel that mitochondria is an impact that as well. So and I see a lot of them hidden infections like Epstein-Barr or Lyme or moles of that we were able to battle with a certain level of kind of immune system function.

But then you add the coronavirus on top of it, then all of a sudden it just becomes too much. And a lot of these autoimmune like Ms., you know, attentive to tend to flare.

Absolutely. And this is again for the listeners, if you've had a coronavirus, you meant you're at a bigger risk to have, severe pseudo relapse. So worsening of your Ms.

symptoms, they may take longer than usual for you to get back to your usual level of function. Yeah. And I think Doctor Caufield basically just told us that mitochondrial dysfunction is part of why it's taking longer.

All of this is happening. I think our listeners are beginning to wonder, like, okay, so I wonder how my mitochondria are doing. Is there a way for them to, you know, pull into a dealership and, you know, get their mitochondria checked and tuned up?

So the, the are different techniques where you can assess mitochondrial activity. I mean, we we do a number of things here.

Testing Mitochondrial Function

Yeah. You have, you know, just actual plant heart rate variability, you know, because that's so directly connected to the autoimmune then and how you're then able to turn on mitochondria.

So there there are different machines that utilizes heart rate variability to kind of see how your mitochondria is functioning there. Also biopsies you can do.

Yeah which is a little bit more intrusive. You have other things like you know a piano is a is a common sap, system out there. And there are other systems that can measures, you know, how your, your energy production level.

And so, it's it's really fascinating. And you also have labs where you can check in a cell, a cellular nad and a D assay as a component within your mitochondria, within your energy producing system.

That is crucial for to make sure that that's running smoothly and then turn that on. So there are a number of ways that you that you can check that which can be really helpful to understand.

And you probably would not be able to get that to your usual conventional neurologist or primary care. They're probably going to have to go to someone who's been trained in integrative functional medicine to access these kinds of tests, correct?

Yes, yes. So it is it's important to understand that you have your your general general practitioner or neurologist and they function within a certain box and they have certain tools that they, they utilize.

Well, they they're great and what they do, but recognize that they do not have the knowledge of everything that's available. Their training usually does not include a lot of the kind of functional thinking, you know.

So there are a lot of functional doctors, naturopathic doctors, you know, like myself out there that are then using different tools to assess these things, but to not expect that out of your your normal neurologist or normal GP, because that's just not part of what they do.

It's not what they're trained in. So how would they find someone who might be able to do this kind of assessment? And so I would actually look ins and see, you know, what what systems that are available, you know, a common one like I mentioned said piano that's a common one.

So you can look and see, you know, who out there, you know, just do a search and locally and see if you can find somebody that that does that. Obviously you can travel to know people like myself, you know, have patients flying in from a little bit all over the place where we then kind of really support the mitochondria, go after the root causes, and we use a lot of stronger therapies, you know, stronger IVs and other Eberts and hyperbaric and Hockett and laser therapies and methylene blue and poly MVA.

I mean, there's a lot of different things that you can bring in. But it is good to see Yahoo who's available close by.

Lifestyle Foundations for Mitochondrial Health

That would have knowledge. And then I would just call them and say that these are this is what I want to achieve. Is this something that you do or or who would you recommend?

So for our listeners, are there some really basic lifestyle interventions that they could do to better support their mitochondria? And that's the thing that there's so much that can be done that are on a foundational level.

And you can just do that at home, up through your your lifestyle. And yes, there are a lot of heroic treatment. There are a lot of great supplements out there.

And that can be really beneficial as an as an add on. But if you don't do the the foundational component, then it's kind of like trying to fill a leaky.

Yeah, trying to fill a leaky bucket. You know, so to say that's always going to start to kind of leak out, you know, if you don't do the foundational things and the foundational they they include, yeah, what am I eating?

And that's, you know, like like your protocol that you that Terri Walls protocols is phenomenal for that kind of recognize eating the type of food that will control the inflammation.

Yeah a lot of, you know, filled with ed nutritive antioxidants that help to kind of calm down that that, you know, talked about the production of reactive oxygen species or oxidative stress to eat food that that help to kind of calm down that inflammation.

And that's things that are loaded with antioxidants. And obviously these are things like different berries on different fruits and vegetables. You know, that can be really, really helpful.

You know, different spices, really helpful in that process. And then you can also do different things to other different supplements that help them to support mitochondrial, you know, production like the EGCg is actually a great one to help with that production.

And then oxygen in itself, just making sure that you breathe, you know, you learn how to breathe, take deep breath, breathing, meditation, be out in nature, be around lots of plants where a lot of oxygen is produced.

You know, that helps. And with your mitochondrial function and mitochondrial activity. And then, you know, things like, you know, just regular stress relieving techniques.

Because we know that stress in itself really promotes inflammation and also suppresses mitochondrial activity. Suppress. Yeah. Your your mitochondrial function and also the mitochondrial restoration.

So it's hugely important to get into that parasympathetic relaxed state where the body can heal repair regenerate, detoxify. So that becomes a really, really important aspect.

And exercise you know movement. You know movement stimulates mitochondrial activity as well. And and not to forget sleep. Sleep is is where the body then helps to detoxify and especially out of the brain.

So we see when we're sleeping the brain actually squeezes itself, you know, to get rid of a lot of that toxic lymph,

toxic fluid that's in there and kind of flush it out while you're sleeping.

But that's why that deep sleep is, is so important. Because if we retain all those those toxins and that debris might. Yeah. Because when we, we burn energy, which is kind of like a car that produces exhaust.

Yeah. So when we burn energy in the mitochondria we produce exhaust. And we need to flush that out, especially in the brain and the nervous system. And when we're sleeping, that's when that takes place.

You know, we are essentially squeezing all those toxins out. So that's why sleep is so important. In addition to, you know, diet, you know, stress control, movement, exercise and, and movement, you always soup.

You got to figure out what type of movement can I do, you know, of course, if you're in pain, then obviously there there are some limitations. Yeah. So things like gentle you can, you know, a little qigong, a little yoga, gentle yoga, stretching tai chi, water aerobics.

You know, that can be really good because it's gentle on on your joints. So there are a lot of options out there, but just to move in some fashion is is so great for the mitochondria as well.

Time spent sitting, so bad. So even if all you do is put a little timer on your phone that reminds you to get up and take a few steps every hour is a great first step.

Supplements and Where to Find Help

So you don't have to make a huge trip to the gym. You could just walk out to the to your kitchen, or your bathroom for a drink of water and a few deep breaths along the way.

That could be super, super helpful. And that and that, that's the thing. I mean, like, in your situation, you know, when when you are wheelchair bound and then you just kind of figure out, what can I do?

Yeah. What kind of movements can I do. Yeah. And and it's you got a and I like you mentioned even if it may look like the smallest thing, all the smallest thing, you know, add up to a lot, you know.

So whatever little thing you can do, will promote and drive you closer to doing better. Yeah. Particularly if you can do that little thing every hour.

So you have less of this continuous city that can be, super, super helpful. No. But can you give our listeners 1 or 2 supplements that would be helpful for the mitochondria?

Yeah, yeah. So I mentioned NAD yeah, I like NAD and they're different supplements. There's some that are better than others. That you know, help to promote the, the nad, you know within the body.

Yeah. Niacinamide Eminem. Yeah. Combination of. Yeah. Also helps you out with, you know supporting the NAD production but then the sell you have things like L-carnitine.

Yeah is great to support energy production especially from fatty substances. You have alpha lipoic acid or one that I use a lot. That is a kind of a, version of alpha lipoic acid that is fantastic to drive to control activity.

Poly MVA. I use that a lot on both oral and intravenously. But alpha lipoic acid is a little bit easier to get. You have ribose. It's a type of a sugar, that does not, have the same kind of impact, like glucose.

Where. Yeah, it triggers inflammation or, can trigger that kind of, you know, where you have spikes in glucose, you know, spiking sugar and then deps, you know, to, to trigger, a lot of stress on the body.

So ribose is fantastic, for energy. And then you have the different B vitamins like vitamin B one is huge vitamin B2. So doing a good quality and I would do a methylated form of a b-complex can be really, really helpful.

So just incorporated those can can take you far. Okay. Well Doctor Hirschfeld, this has been, really superb. Can you tell our listeners how they find you?

So I'm located out here in Boise, Idaho. Yeah. It's, out and out of nowhere, but it is a place where everybody's going to. So, you can find me on my website, the karlfeldtcenter.com, and there's huge amount of information fact.

If you type in, Terry Wahl's name, you'll see an interview that I did with her on the radio show a long time ago. So you'll find a lot of information, a lot of blogs, you know, a lot of interviews that I've done.

And then, obviously, if you feel that you need more help and want to kind of hit things a little bit harder, we have a lot of tools there, you know? In fact, we had a lady just flying in that dealing with a huge amount.

She wasn't dealing with Ms., but a lot of brain disorders. And within two days, there's just a huge difference in how she's able to communicate and interact and remember things.

And then she she is an actress. Yeah. So she needs to remember all her lines. And if a brain's not functioning, she. Yeah. She can't work. So, So, yeah, you can just look us up on a website or give us a call, and we'll be happy to assist.

Great. Thank you. Doctor. Karlfeldt thanks for the pleasure.