How To Defeat The Energy Crisis Of Middle Age Transcript

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Introduction to Mitochondrial Energy

Welcome to the Silent Killers Summit, where my guests and I are uncovering the root causes and giving you solutions for chronic inflammatory symptoms and diseases.

I'm your host, Laura Frontiero. Today, I'm going to do a quick talk on the profound impact of mitochondrial energy production on our health. Now to begin, let's understand that there are two types of energy that shape our lives.

We have physical energy, the vitality we feel each day, the force that keeps you mentally and physically going to complete your tasks, take care of your family, do your job.

And then there's invisible energy. And this is the essential force driving every cellular function within your body. It's helping your heartbeat. It's helping your lungs breathe.

It's helping your muscles contract. And it's doing a whole lot more. So you can think of physical energy as a noticeable force that keeps you going, you know, all day long, dawn to dusk.

It affects your productivity. It affects your overall well-being.

MADS and Middle-Aged Energy Decline

invisible energy, on the other hand, is this hidden force that fuels your cells. It enables them to carry out vital tasks like making hormones, digesting your food, launching an immune response, making enzymes, having signals moved from your brain to the rest of your body, having your organ systems communicate with each other.

So together, these two energy forces, physical and invisible, they form the foundation of your health and your vitality. So we're going to dove into the main symptoms that plague middle aged individuals, a condition that I call MADS middle-aged deficiency syndrome.

I'm mad about it. I hope you're mad about it, too. This shouldn't be happening. We should be in our most powerful place in our 40s, 50s, 60s, 70s and beyond.

Hormesis and Cellular Stress Adaptation

Now it's a complex web middle-aged deficiency syndrome of low energy, brain fog, mood swings and anxiety, anger, depression, disrupted sleep, a host of digestive discomforts, mads effects not only physical energy, but also the invisible energy that's required for this optimal cellular function that we're talking about.

Now, I want you to walk away from this talk with actionable steps to restore your mitochondrial energy function. If you didn't see my talk on MADS middle-aged deficiency syndrome, middle-aged deficiency and inflammation syndrome and what to do about it, be sure to go back and watch it before the summit is over.

Now, in this talk, I'm going to share with you the concept of hormesis which is an adaptive response of your cells to usually a moderate and intermittent stressor, meaning it's not a continuous stressor, not a constant stressor.

The basic concept is that small amounts or small doses of stressors to the body are actually good for you and protect you from larger amounts of stressors.

Now, the function of hormones, this is actually proof that healthy stress does exist. So, for example, an intermittent dose of hormetic stress like cold or heat exposure or fasting or exercise can stimulate cellular pathways and support your overall health.

So from a mitochondrial energy production perspective, when your cells experience a mild stressor, it stimulates mitophagy and mitogenesis So mitophagy is elimination of mitochondria that are damaged and dysfunctional and mitogenesis is when your body regenerates more mitochondria from the healthier, stronger ones, so you make new ones.

Extended Fasting for Autophagy

Now this process has to happen to prevent the accumulation in of old and damaged mitochondria that cause oxidative stress in the body. And they cause low energy levels.

They cause metabolic disease. So for the creation of new mitochondria, it stimulates the cells to clean house. So I want you to think of it like vacuuming and dusting and getting rid of the cobwebs and get rid of waste and malfunctioning cells.

So cellular debris and cells that are no longer working well that are malfunctioning. Now, these positive stressors, these hermetic stressors, they help your cells and ultimately your body become more resilient and create the physical and invisible energy I described at the beginning of this talk.

So there are positive stressors that we're going to briefly cover right now. So the first is extended fasting, and this is different than intermittent fasting when you're fasting for an extended period.

So when you hit about 48 to 72 hours into a fast damaged mitochondria are purged through autophagy. Actually, the first thing that happens is cellular debris is purged and organelles.

So mitochondria is an organelle inside of a cell. So those are purged. And then deeper through the fast, if you can make it four or five days, then you really start to knock out the cells that are no longer working.

So you can think of this like your body sending a cleaning crew to dust, vacuum and polish up and even like they're dusting, vacuuming and polishing up.

That's the cellular debris they're taking out the old furniture and replacing it with new when the cells start to be removed.

Exercise and Mitochondrial Repair

So this process allows your mitochondria to removed damaged debris, accumulated reactive oxygen and nitrogen species and unfolded proteins which are biologically inactive proteins.

Extended fasting also reduces oxidative stress by products. It increases oxygen efficiency and it maintains ATP production. So I know this is crazy, but I don't want you to confuse this with intermittent fasting, which is 12, 13, 14, 15, 16 hours.

That is good for other reasons, but it's not long enough to stimulate the purging of cellular debris and old cells that autophagy or autophagy potato, potato, however you want to say that.

The second thing is regular exercise. So studies show that 50 to 80% increase in mitochondrial capacity in people who exercise with interval training, that means that exercise alternates between short bursts of intense activity and brief periods of rest or lower intensity exercise.

Now, this method helps aid mitochondrial repair, change mitochondrial shape, and balances mitochondrial cell production of new mitochondria or mitogenesis as I just described now, real quick, I want to explain that there's a difference between movement and exercise.

So movement is low intensity without a physique related goal.

Red Light Therapy Benefits

So a physique related goal exercise is high intensity with a goal to build strength, muscle, endurance, burn, fat, etc. So there is a difference if you didn't catch the talk I did with Ari Whitten on resilience on this summit.

Make sure you watch this because we dove extensively into exercise and the research that's out there that shows it's one of the most powerful things you can do to improve your lifespan and improve your health.

So there's just no getting around moving your body. I just have to say it. So third is red light therapy. And of course, I also did a talk on red light therapy with our friend Ari Whitten.

So make sure you catch that as well. But red light therapy, basically it's low wave light, red light. It's a form of photobiomodulation. Red light goes deep inside the cells.

It increases cellular energy and antioxidant production. It benefits mitochondrial health, circadian rhythm balancing, improves sleep, it supports collagen production.

So it's anti-aging, it reduces inflammation. It helps of pain, it improves skin conditions, it promotes wound healing and tissue repair. It supports hair growth.

And research shows that mitochondria make more energy when exposed to red light. And red light also stimulates the molecule cytochrome c oxidase, which is part of the electron transport chain that produces ATP energy for physical and invisible energy.

Cold Exposure and Mitochondrial Biogenesis

Okay, fourth is cold exposure, so shivering recruits mitochondria to generate heat. So even a 30 to 90 second, you know, cold blast or experience of cold has been shown to increase mitochondria, biogenesis or production of new mitochondria.

So you can easily do this in the shower if you're brave enough. I am not. I was just saying I'm a wimp when it comes to that. I like heat. I like my hot shower to blast me with cold.

Cold is torture to me. I don't have to say if you want to torture me. Put make me cold, make me shiver, make me freeze. I literally hate it it's hard for me to do.

It's good for me, but it's hard for me to do. I'm better if you just put me in a cryo chamber or just, you know, quick cold plunge. But the shower is a really hard place for me, but cold plunges, whole body, you know, cryo chambers, cryo facials.

Think of professional athletes and they're always on a quest to improve performance. And cold therapy is commonly a strategy that's used to increase that performance in the locker room.

So fifth is heat exposure or sauna bathing, this is the one I love because I'm a heat seeker. This creates beneficial response in mitochondria and increases their function.

And it doesn't matter if it's a traditional sauna or infrared sauna. It's the heat and the sweating that's important.

Heat, Hypoxia, and Plant Compounds

Sauna is an important part of most ancient civilizations around the world, because when you do it, you function at a higher level and have less illness and more stamina.

The sixth is hypoxia, lack of oxygen or a period of time you can achieve this with intermittent hypoxic breathing. So

I've done this before. It is literally it gives you a high, it makes you euphoric.

It's amazing. So according to experts, intermittent hypoxia training teaches your blood to extract oxygen more efficiently from the lungs, and it directly affects your mitochondria and protects them from damage.

So you want more oxygenation. You don't have to get into a hyperbaric oxygen chamber. You don't have to do some fancy, you know, ozone therapy, just do lung training, do breathing exercises to get to a hypoxic state to make your body extract more oxygen.

It's free. But anyway, intermittent hypoxic training, it's used and studied by scientists. You know, for the last 50 years or so, it's been more widely popularized by you may have heard of the extreme athlete, Wim Hof.

He's known as the Iceman. He developed his breathing technique combined with cold therapy, to create Wim Hof method. So if you don't know what that is, look it up and you can find people all over YouTube and everywhere teaching you Wim Hof breathing.

So the benefits of hypoxia include a boosted immune function, improved sleep. It regulates your nervous system, it improves mental stamina, improves energy levels, improves exercise performance, it decreases inflammation, it creates new mitochondria and increases something called BDNF brain derived neurotrophic factor, and that helps support new neuron growth and development.

So you can't go wrong, try it out. So number seven is phytochemicals and hormetic phytochemicals such as resveratrol or sulforaphane or curcumin?

Closing Resources and Next Steps

Catechins Allicin Hypericin They're reported to activate adaptive stress response, and that signals pathways, signaling pathways that increase cellular resistance to energy and disease.

So in other words, the phytochemicals in plants can also create this mild stress reaction in the body that actually helps your mitochondria produce energy.

Now, if you're feeling like you're ready to get support and help restoring your energy, get rid of your mystery health symptoms. Get in contact with me or one of the practitioners who are teaching you on this summit.

For the past few days, you've been learning all kinds of new tools to help you solve your symptoms. You're also hearing from experts all over the world who have the ability to help you. And while you're viewing this summit, look for the practitioners you resonate with and be sure to connect with them afterwards that for you to get the help you need.

Stay tuned after the summit because when it finishes airing, I'll be hosting a series of masterclasses to get you more information on your favorite topics from the summit, including How to get Functional Gut Microbiome Lab testing, toxin testing, how to clear parasites, how to support your mitochondria health, rebuild mitochondria, support into all of our programs.

We help people from many countries around the world. So be sure to add laura@laurafrontiero.com to your safe email list. I'll be in touch after the summit.

You can find me at laurafrontiero.com There's a clickable link to my Bio-Radiant Health website near the bottom of this page where you're watching this video.

And also, if you want more information on how you get permanent access to the summit interviews, just email support@drtalks.com and the team will help you get all sorted out.

Until next time. Take good care. Bye now.