Introduction to Mitochondrial Energy Supplements

Welcome back to the mitochondria conversation. I'm your host, Laura from Ontario. And in this talk I'm going to be covering energy supporting supplements that give you results.

And I'm joined today by Daniela and Georg. Hi, Daniela. Hi. You're my lead coach and right hand bio radiant health. And Daniela, you're a mindset empowerment health coach who is also a Pilates instructor and a muscle activation technique certificate certified.

And at age 41, you were diagnosed with breast cancer. And this interrupted the breastfeeding of your one year old baby boy. And the reason I love doing these talks with you is because if anyone understands the power of cellular health and cellular healing and why I stand for restoring mitochondria function and gut health, it is you.

Because this is how you restore your body. So welcome and thank you for being here today to help facilitate this discussion about supplements. Oh my gosh, no.

Thank you so much, Laura. I, you know, this is such an important discussion and you think I'm always so thankful that I found you because I, I was really needing certain supplements, and I was walking around this world unhappy, not even knowing about it.

So, you really you've really supported me. So it's a pleasure to be here. And, you know, Laura, I know that for literally over 20 years you've been a nurse practitioner.

You've specialized in preventative and functional medicine. And through this time, you've gotten to work really close and steady with a long list of some of the most respected, functional, natural health oriented doctors and experts.

It's it's incredible. And now here you are and you built your bio radiant health brand and you're helping. Hi driven, high performing people every day.

You're helping them reclaim their energy. You're helping them with brain stamina and productivity. And so you've become this trusted resource for people.

And what these people have in common is they want to build back their health so that their bodies can keep up with their ambition. Because sometimes, you know, we want this, but we just can't reach it.

And you really help people reach it. And so we're saying earlier, you supported me and I, I was in a, difficult state of mind. I was having anxiety, I had brain fog.

I wasn't being the mother that I wanted to be. And my work was suffering. And, through some, some testing, through some organic acids testing, you discovered that I had some really massive deficiencies.

And, you know, you helped me. You help me figure out what supplements I needed. So I know there are many people out there just like me. And you talk about this that have a graveyard drawer full of supplements and don't know how to coordinate them all or don't know what to do with them.

So I'm wondering if you can help our viewers understand the significance of certain supplements and if you could specifically talk about which ones would be really supportive with mitochondrial energy production as well as mitochondria biogenesis. Yes.

Thank you, Daniela. And you did have an extraordinary recovery once we figured out what your body needed and

we gave it to her, she felt a lot better.

It was only two weeks. It was so short for me. I was so blessed. I know it was really extraordinary. So as you've been learning, you know, as the audience has been learning on this summit, mitochondria are all about energy production.

Plus they do a whole bunch of other things in the body.

CoQ10 and Carnitine for Cellular Energy

And then there's this whole concept of mitochondria biogenesis where mitochondria reproduce grow new ones. And so you get new mitochondria. And so there are some particular supplements that are actually really helpful in this process.

And my goal here today is to help people make sense of kind of those, I know everybody's got bottles of supplements at home and which ones may be supportive for mitochondria.

I'm a fan of trying to use what you already have, so definitely get a pen and paper and take notes as I go here, because I'm going to give you a whole bunch of information about certain supplements and try to make this as interesting and fun as we can as well.

And, and I and I am also a big fan of trying to do as much as we can with food, but but I will tell you that I love the concept of let food be thy medicine.

However, if you are already in a place of low energy brain fogginess, you know autoimmune conditions, gut dysfunction, inflammation, you know, chronic symptoms, then you probably need more support than than food to get you well.

And then once you're well, let food help keep you there. And I I've you know, I've been known to say you you you cannot eat your way out of some of these chronic health conditions.

You simply couldn't eat enough food per day to get the nutrients, the extra nutrients that your body needs to recover and repair. And so, yes, it's important what you eat and supplements can come, can go a long way in supporting you as well.

So with that, Daniella, are you ready to jump in? I'm ready. Yes. So good. Okay, so the first supplement I want to talk about today is CoQ10. And CoQ10 is something that probably a lot of people could have in their, supplement, draw or supplement cupboard.

It's also something that you might actually get recommended to take from your Western medicine or allopathic practitioner. CoQ10 is really an incredible, it's incredible supplement.

It supports energy production inside the cells, and it's actually a component, a cofactor of the electron transport chain, which is where mitochondria make ATP energy.

And it also fights oxidative damage. And low levels of CoQ10 are associated with chronic fatigue. So when you do, when you when you look at CoQ10 levels on people with chronic fatigue, you'll find this commonality of it being low.

And then many other diseases like heart disease and multiple sclerosis. You'll find that it's low. And oftentimes, you know, cardiologists will will consider recommending this to, their heart patients because it protects heart.

It also protects other organs like pancreas, liver, kidneys and the usual dosing. And that's another thing that I want to share on this talk today is I want to help people with dosing and also let you know where you can find these, supplements naturally as well.

So and that's why I say have a pen and paper handy. You might want to go back and rewind and watch this. So usual dosing is 150 to 300mg per day. Depending on what someone needs.

You can go in higher, you can go higher. I would say, you know, work with your practitioner on that. But you can find CoQ10 naturally in foods. So it's in pasture raised chicken and beef.

Liver is a big one. Heart and kidney. So those, organ, organ tissues. And I know a lot of people don't like eating organs, so you can do freeze dried organs. That's something that I do.

And it's because I don't love eating, liver either. Or or heart or kidney. But freeze dried organs are fantastic. It's also in, fish, in dairy and some fruits like strawberries and grapefruit and apples.

Avocado, some vegetables, like broccoli and cauliflower and sweet potatoes, nuts and seeds, olive oil. But like I said, you'd have to eat if you're already in a high, oxidative level.

If you if your tests are showing high oxidative stress and, you've already had some heart disease or some, you know, known inflammatory diseases, you probably can't eat your way to the amount of CoQ10 that would be supportive.

Okay. So the next one is carnitine. And this one is a really fun one. So carnitine is an amino acid that shuttles fatty acids into the cell. So there's a process called the carnitine shuttle.

I like to think of it like a bus that goes into the cell and the carnitine, you know, jumps on board and the bus takes it, you know, through the gates, almost like, you know, if you're if you're driving on to a military base or you're driving on to if any of you you've been to, like a Hollywood backlot or something or like Universal Studios, you got to have like a shuttle to get to the backlot, right? You got it.

You got to have, like, special circumstances to get on to the military base. So it's kind of like that, the carnitine shuttle. So what it does, is it helps these fatty acids get into the mitochondria, and you use these fatty acids for fuel and to make energy.

And if you don't have enough carnitine, you won't burn fat and instead you'll burn glucose, which causes more oxidative stress. And it's not a clean burning fuel.

Glucose, fat is your clean burning fuel.

NAC, Glutathione, and Alpha Lipoic Acid

So you can think of it like the difference between putting high octane gas in your car versus regular. If you have a high performance car and you put regular, regular gas in it, over time you're going to get problems with your engine, and performance problems.

And so that's kind of like burning fat versus glucose. Glucose equals performance problems and fat equals high performance. And carnitine is essential for that.

And again it's an amino acid. So it's a it's a it's a protein. Now this is a metabolite a metabolite of carnitine called acetyl l-carnitine actually also supports the synthesis of acetylcholine, which is the most abundant neurotransmitter in the human body.

And acetylcholine regulates activities all over your body. And your organs and your blood vessels, and also the communication between nerves and muscles.

So you can think of carnitine and acetyl l-carnitine as being really important for mental energy and focus, helping balance mood, helping protect your brain and nervous system, and helps, support the health of brain cells affected by occasional stress.

This possibly could have been one of the things that supported you. Daniella. When we as I was just thinking that, I think we gave you a combination supplement for mitochondria that I believe had some acetyl l-carnitine.

I'd have to go back and look at your protocols. But, this is this is pretty amazing stuff. So the usual dose for this is 1.5 to 4 four grams per day. So a gram is a lot. Right.

And you would divide this into 2 to 3 doses throughout the day. And I would say, you know, do this with the support of a, of a practitioner. Carnitine by the way, is an amino acid, like I said, that's naturally produced in your liver and kidneys.

So your body can make it. And it's mostly found in red meat and also fish and raw eggs and milk and raw cheese, avocado and tempeh, all these, like, really natural foods right now. This is one I know we put you on, an acetylcysteine nac and, the next this is the next one I want to talk about.

And it's a molecule that your body creates from the amino acid cysteine. So there's another amino acid there, the building blocks of protein. And it's a precursor to your body's master antioxidant glutathione.

Now, glutathione is one of the most important things that your body needs. In fact, it you can actually predict how well people will do with a viral infection.

And the big viral infection we've been dealing with for the last couple of years. People have low glutathione levels. That's a pretty good indication that they're going to do poorly with clearing Covid and possibly need to be hospitalized.

So people with high growth hormone levels do much better. It's an absolute indicator of, likelihood of death from Covid. Believe it or not. And so so NAC is a really efficient and cost effective way to increase glutathione in your body.

Now, worried about glutathione, you can take glutathione intravenously and you can take it liposomal. So you hold it on under your tongue or in your mouth and it absorbs through the mucous membranes. And it also take it in a pill.

And what I'll say is glutathione shown in a pill does not absorb very well. It's better to do it liposomal, and even better, just take inexpensive n acetylcysteine and make your own glutathione with it.

That's a really good hack is n acetylcysteine. We don't even need to give you expensive glutathione because you can do nac. And so and acetylcysteine also so NAC and NSAIDs, cysteine are the same thing NAC for short.

And it promotes healthy liver function and optimal detoxification. So when we do the organic acids test we can see your detox pathways there. And one of the first things that we look at on an organic acids test is we look at your sulfur level and we want to see, are you having a full detox collapse or is everything working well.

That is a big indicator that things are going wrong if you're in collapse and that is glutathione collapse, and that means you need an acetylcysteine.

And acetal cysteine also helps with exercise recovery and it supports healthy lung function. And since we're on the Mitochondria Summit, it is critical to mitochondria because it helps reduce oxidative damage.

And it preserves cells when there's a genetic mitochondrial mutation or when there's toxins that are directly damaging mitochondria. So it's really protective to mitochondria.

And the recommended dose for this is somewhere between 600 would milligrams would be a small dose up to 2000mg a day. If somebody has serious decline in glutathione levels, I will give 3000mg a day, like 1003 times a day in divided doses.

But I would do testing to see if you need that much. So I think you've been on a acetylcysteine. Before. Daniella.

Yeah, yeah, I think so, yeah. Okay.

The next thing, that I want to talk about is alpha lipoic acid. That's also abbreviated as alpha is for our audience. I hope you're keeping up with me.

I know you're probably right. Rapidly writing down information. It's okay. You can go back and watch this again. But alpha alpha lipoic acid is one of the most powerful nutrients available.

It's involved in energy metabolism and Antioch. And it's part of the antioxidant system. And it actually helps replenish other antioxidants and stimulates the production of glutathione.

There's that glutathione, again, your master antioxidant enzyme. So alpha lipoic acid is supportive of that. It helps reduce inflammation, stabilize blood sugar.

This is really important when people do have elevated cortisol levels when you do kind of adrenal tests. You know, I could go on a soapbox about this.

Adrenal, dysfunction is actually mitochondrial dysfunction, but, it does help to stabilize blood sugar. When you have these high cortisol levels, your blood sugar tends to go up and up, and alpha lipoic acid will support that.

And improve cellular energy. And, it really helps with cognitive brain function big time. And it helps prevent weight gain as well. So there's a little bit of use for it in the weight world.

And the usual dose for this is around 618 hundred milligrams per day in divided doses until it's like 2 to 3 times a day. You can go up pretty high on alpha lipoic acid if you're working with a practitioner.

It is found naturally in organ meats. So there's that organ again. So getting that oh my gosh, organ meat is one of the most healthy things. I mean, you think about Danielle, I think about indigenous cultures, how they would eat the whole animal.

They did not let those vital organs go to waste. Right. But we since I know we're we're we're whitewashing our, our food intake here. I know we just want white chicken breast and filet mignon.

Oh, really? I know, but, you know, organ meat is so good for you. So again, freeze dried organ, is wonderful. And you can get it sourced from, you know, cows in New Zealand where they don't have the problems with the, pesticides and herbicides and all the chemicals getting into the cows.

So basically you're going to get, alpha lipoic acid from grass fed animals and also from spinach, broccoli, potatoes and tomatoes. But particularly in those animals, it's the organ meats.

Okay. This is a really good one. PKU is what we call it for short because it's called pyro low. Quinn Allen quinone. And that is about that is a fancy word.

Yeah. And nobody can say it or spell it. So, PKU is what we call it and it's really important you asked about mitochondria biogenesis. So formulation or building of new mitochondria.

And this is where the sweet spot is with PCU. So it helps you build new mitochondria.

Mitochondrial Biogenesis with PQQ, Resveratrol, Curcumin, and D-Ribose

And so basically you're growing new mitochondria with the help of PCU. And it's helpful for energy production as well. It lowers fatigue. It helps with sustained physical energy and athletic performance.

So athletes use this. It does help with better sleep. Quality. It's an anti-aging supplement. And it helps with efficient metabolism. And there's that healthy body weight.

Again it can support your body weight and also optimal nervous system function. So PCA is pretty amazing. Now your body cannot make PCA. It can be found in a variety of foods.

Parsley of all things, green tea, green peppers, kiwis and papayas. But supplemental amounts may be needed for people who have more critical mitochondria decline.

Remember I said when we started this talk that you can't eat your way to mitochondria? Biogenesis in most cases, if you are in a hypo metabolic state where mitochondria are just completely decline, and we can see that from an organic acids test, then you're going to need more than food to get better.

What were they again? They were parsley, papaya. Drink green tea. Green peppers. Kiwi. Yeah. Papaya. And the dose for this is about 10 to 30mg per day.

And I'm almost, I just wanted to give you these few really good. I have a couple more for mitochondria. Just not don't want to overwhelm the audience.

I just want to give you some big hitters here now, resveratrol. This is something that has gotten a lot of lip service because it it contains a powerful polyphenol and it's an antioxidant.

So this is naturally found in red grape skin and seeds and blueberries, mulberries, cranberries. It's in pistachios and raw cacao. It's also in peanuts.

It's in red wine because it's in red grape skin. And it's in, the Japanese knotweed plant. And I have never tried knotweed plant have, you know, I have never even heard of it. Yeah.

It improves, mitochondrial function. It promotes anti-aging. That's resveratrol, isn't it? Oftentimes in anti-aging products, why does it promote anti-aging?

Because it helps mitochondria. All right. At the crux of anti-aging, right. It promotes brain and nervous system and enhances detoxification. And it's also a preventive for cancer and heart disease.

And the usual dose of this one is around 200mg, 1 to 2 times per day. So resveratrol I have two more I want to cover in this category of, mitochondria.

The first one is the first of these two is curcumin. Curcumin is the active compound in the herb turmeric. And so you may see on a bottle labeled as turmeric, curcumin is what's the active thing that's in there.

And this is another really powerful antioxidant and an anti-inflammatory. So this lowers the inflammatory fire. It helps put out the flames. It helps with reducing inflammation and pain.

And it provides it prevents and fights cancer. In fact, it is very well researched in the cancer world. And Johns Hopkins Cancer Institute uses this regularly in their protocols and definitely, integrative, integrative cancer protocols will will lean heavily on curcumin as well.

It does support healthy metabolism and cellular function and healthy cardiovascular and neurological brain function as well. And it's it supports a healthy response to oxidative stress and a normal inflammatory response in the body.

So that's all really critical. It's that lowering of inflammation. So here's the thing about dosing curcumin. The usual dose is 400 to 1000mg a day. But I'll tell you that dose is 4 to 5 times higher than that are used in cancer treatment.

So we're talking like 5000mg. And so you can go pretty high on curcumin. So, you know, if you get a bottle of that and look at what's on the bottle and just double that, you're in the safe range and, you know, you can get, Kirkman's in a lot of different places.

It's great. The last one I want to share, it is the last one I want to talk about here is derived, in terms of mitochondria

support. And I will say a disclaimer here, I could talk to you for three hours on supplements that will support mitochondria.

I just picked out some big ones and ones that are easy to get and ones that might already be in people's medicine cabinets. Okay, but there's state that so many more that we could go into.

But D ribose is a building block of actually RNA and DNA. And this is a naturally occurring sugar molecule that your body actually produces. So you can produce it naturally.

And it's important for that ATP energy production of the mitochondria inside the mitochondria. And it's really helpful for sleep energy pain reduction and even mental clarity.

And so it helps boost energy in people who have suffered from conditions like heart disease or strokes, where energy levels are reduced. If you give this to them, it really helps kind of give you them get up and go.

And it also supports energy in people doing regular intense exercise. So on the other side, athletes can use it and the dosing for this is usually 2 to 15g per day divided in 2 to 3 doses.

And with meals it shouldn't be taken without a meal. Now I say 2 to 15g, and that's a really low number to a really high number, because you have to work your way up from a low dose to a higher dose, because it can actually lower your blood glucose levels in some people because hypoglycemia.

So you want to go low, especially if you have diabetes, you want to go low and just check your blood sugar as you do it and build up on it. And this is naturally found in poultry, dairy, beef, eggs and mushrooms.

But like I said, your body can actually make it. So these are a way to promote your body, making it Laura. Promote your body making it. That's a good question.

I don't know the answer to that. I'd have to research more on that. I would say, you know, promoting your body, making anything like assimilating proteins, putting together amino acids, making any of these things.

What is going to support you is getting sleep because you your rest and repair and restorative sleep. What happens when you're sleeping is your body goes into making all the things while you're asleep.

And so I would say one of the main things just off the top of my head would be sleep and low stress and, hydration and, and good nutrition. You don't want your body trying to, process foods that are harmful to you because that takes energy away from making nutrients.

But in terms of specific pathways where it's made, I'd have to do more research on that. Okay. Just curious. And that's that's, that's, that's good for the supplements that we can use for us restoring mitochondria.

That gives people a lot to work on right now I think. So I think that was like almost ten. So that's great. Yeah quite a few. Yeah. No thank you I mean it's amazing how these things just regulate just so so much.

If there's so vast honestly it's incredible to see. Okay, so let me ask you this. Are there any nutrient deficiencies, that you repeatedly see on an organic acids test?

And if so, are there any basic supplements that you recommend for some of those common deficiencies? Yes. So, you know, an organic acids test is a pretty robust test.

It's a urine test. And it looks at kind of byproducts, enzymatic reactions, byproducts of metabolism and enzymatic reactions in the body. And it looks at many, many pathways.

So we can see the mitochondria Krebs cycle ATP production happening on there. We can see if your mitochondria are struggling or if they're doing well.

We can see what's missing, what your mitochondria need. The test looks at your B vitamin status. It looks at your neurotransmitter status. So how do you need support with making serotonin or dopamine.

So neurotransmitters that help us with mood and productivity and, satisfaction and feeling, you know, focused. This is one of the things we found on your test when we, when we did yours and you were you were really struggling with anxiety and depression.

We fixed those deficiencies that were identified on the neurotransmitter section. And that's why you had in my opinion, such a quick rebound. Because if you had those things, boom, you were making the neurotransmitters, you felt so much better.

The the organic acids test has a gut section that looks at gut health as well. It has a full detox liver pathway section. It looks at oxidative stress.

It looks at methylation. So you get a lot of information on this test. So I want to cover when I think about nutrient deficiencies that I see over and over again, I want to cover three important supplements.

First being B vitamins. And this is a huge one. Almost every single person I run a test on has at least one B vitamin deficiency. Multiple and B vitamins are needed to turn your food into cellular energy and for your mitochondria to function and they're literally mission critical.

You cannot function without your without your B vitamins. And they support overall energy, cellular health, digestion, mental clarity. They help healthy nerve function.

And brain like I mentioned, they help with hormone assimilation, cardiovascular health, muscle tone. They even help with the growth of red blood cells.

So there's a lot of different B vitamins. So thiamin is B1, riboflavin is B2, B3 is niacin. B5 pantothenic acid paradoxical is B6, biotin B7, folate is B9.

People think of folic acid being folate. This is a problem. Folic acid is synthetic and it's inflammatory and it causes a lot of problems. You do not want to take folic acid.

You want to take folate, which is the natural form of B9. And and that's important for pregnant women. We tell them to take folic acid. And it's actually if you know, it's actually damaging and folate is what people should be taking. So you want to take a good methyl b-complex which would have real folate in it.

And then the last one is B12 kibble I mean and each each of these B vitamins has a unique and different function. We could have a whole talk just on all these.

So I'm not going to go into what each one does. Just know that each one is very important. And they all have a very different dose. That's important. So I basically recommend just a basic methyl B complex.

And methyl is important methylated. That means that the vitamin is easier for your body to absorb and use. And that's important for people who have methylation problems.

They can't they can take B vitamins in and can't use them. So this is why I do not buy my B vitamins at Costco. And I do not buy my B vitamins at the grocery store, because you cannot get these super high quality B vitamins.

You need to go to a practitioner grade supplement. And so I think people watching this summit are pretty savvy, and they understand that there is quality.

Quality matters with vitamins. There's a lot of garbage out there.

Common Deficiencies: B Vitamins, Magnesium, and Vitamin D

And one of the things that I learned, you know, with Dan Kalish, he is an absolute legend and a master in the functional medicine space and organic acid space.

He does year long mentorships where all we do is study organic acids, which is what I did with him. And for a year we did organic acid. After every week after week, we studied organic acid tests.

And one of the things that I learned from him that was so eye opening to me was that the B vitamin RDA is the recommended dietary allowances are severely low, severely low, and we can go pretty high on B vitamins.

And sometimes people need four times or more the amount recommended on the bottle. And and yeah, it's wild. So when you work with me and I see that you have a B vitamin need, I'm probably going to dose you pretty good on B vitamins because you get a pretty good effect with them.

I would recommend an organic acids test if you're going to do high dosing though. But everybody can take a B vitamin and you know, that's fine. They are water soluble.

So you will see your urine will turn bright yellow and you will see you will smell. Maybe that's normal. It's normal. I mean some is going to come out in the urine.

It doesn't mean you're putting it all down the drain. A lot of it's getting into your body. I missed running around for sure. Yeah. Oh, and you're flushing your money down the toilet, right?

Yeah, yeah. So, so, naturally, B vitamins are found in liver. Kidney again. Me? There's a thing here. Fish and shellfish. It's one of the reasons that vegetarians and vegans are often deficient in B vitamins.

They are found in veggies and whole grains and beans and nuts and seeds as well. But your best sources are animal. Animal sources for B vitamins. The second nutrient I want to cover, that I see often deficient is magnesium.

And this is a crucial, crucial mineral that supports over 300 enzyme reactions in the body. It's literally needed for everything. And it's important for energy, calcium absorption, muscle and bone health, transmission of nerve impulses throughout your body and metabolism of food, synthesis of fatty acids.

Remember at the beginning of this talk I said, fatty acids are the things that we burn for energy. They're the high octane, burning, clean burning. Well, to synthesize that, you need magnesium.

Magnesium is one of those co-factors that's really important in the electron transport chain and in the Krebs cycle inside of the mitochondria. So almost everyone I test has a high need for magnesium.

It's I rarely find somebody who's doing great on magnesium unless they already take it. It is critical for cellular healing, and the usual dose is around 300mg 1 to 2 times a day.

Now, everybody knows you can also use magnesium to help you have, bowel movements. Because if you're if you're low in magnesium, you get constipated. And so there's different types of magnesium that you can take at bedtime to help you have an elimination.

Some magnesium like like magnesium glycine for example. It doesn't cause loose or bowel movements. It's very it's absorbed. It doesn't end up back in the bowel.

So there's all kinds of different magnesium. And you should work with a practitioner to find out which one is best for you. But if it's a constipation thing, magnesium oxide or magnesium citrate is what you take at night.

But a magnesium glycine eight, you're not going to have that effect. It's also really great to help you fall asleep at night. It does help soothe and calm.

So it's nice to take it at night. Now there are sources of magnesium in cashews, almonds, sunflower seeds, peanut

butter. So you're seeing a nut, a nut and seed theme here.

It's in broccoli and black beans. Bananas. Oatmeal. By the way, our soil is getting very depleted of magnesium. And it is a myth that there's no such thing as magnesium deficiency in this country.

I used to say that all the time when I worked in Western medicine, I used to say the only people who are magnesium deficient are alcoholics, and it's simply not true.

And the reason we say alcoholics are deficient is because they don't eat as much as they should through alcoholics drink, they don't eat, and so they're deficient in lots of things, including magnesium.

But since our since our soil is so depleted, it's not we have a hard time with magnesium now. So that's what I've heard that time and time again. Our food sources are just do not have the amount of magnesium that our bodies need.

Yes, and you can get magnesium for more than just pills. You can take Epsom salt baths. You can do soaks and soak your legs and feet in Epsom salts. You can do, chlorophyl.

You can do, carbonated. You can do a soda stream, make a carbonated water has magnesium in it. Can you magnesium sprays and gels. So there's different ways to get magnesium.

You have to spray, and it's been really helpful. Oh, good. Good. Yeah. There's one more nutrient I want to talk about, during this talk. And that's vitamin D. And I have tested thousands and thousands of people on vitamin D in my years in Western medicine, in allopathic space.

I worked in a bone clinic from 15 years, and we tested D on every single person. So I test thousands of people per year. And in sunny Southern California, where I live, 50% of people were vitamin D deficient 50%.

And we all know vitamin D is the sun vitamin, right? Our skin makes it from the sun. It's actually not even a vitamin. It's a hormone, but we call it a vitamin.

But it's so important for bone health. It helps regulate your body's calcium levels. And when calcium level is low, D, stimulates calcium absorption and reduces calcium excretion.

So you don't lose as much calcium, you retain it. And that helps. You're healthy, helps you have healthy bones. In addition, vitamin D is critical with immune response in the body.

It's well known that if you have Covid, you should up your vitamin D. Any anything that you're dealing with in terms of infection, you should up your vitamin D, and it helps with healthy prostate and colon and breast tissue.

And, it supports gut health. I mean, vitamin D is everywhere in your body. And it goes through a very complex process to become bioavailable. It has to go through your liver and your kidneys.

Once you absorb it, once you make it, you know, from the sun or once you ingest it from food or from a pill. It goes through all these complex processes before it becomes bioavailable.

So it's and if you're obese, it's very difficult to maintain a normal D level. It gets trapped in fat tissue. Never makes it through that biosynthesis into something that will become usable for you.

So common sources of vitamin D are salmon and eggs and fortified dairy. It's not naturally occurring in dairy, but we put it in there. So vitamin D milk is because we put D in the milk.

And then the usual dosing is now we think about the, about, you know, dosing in the Western medicine world is very different than dosing in the functional medicine world.

For D, the International Society of Clinical Dense Optometry, the American College of Endocrinology, the American College of Rheumatology, they'll recommend about 2000 international units per day.

Functional medicine, we say 5000 a day is probably better and safe. And sometimes, you know, we'll recommend you take 10,000 a day or 50,000 a week, depending on if your levels are low.

And that can be an add on, on to some organic acids tests. And you can also test in your regular doctor's office. But I think that's a good start for, for vitamins and minerals and, you know, supplements and nutrients that can support mitochondria health and overall health.

But I think you never can go wrong if you do a B vitamin, magnesium and vitamin D, I mean, that's an easy one to take every day for good support. And I bet you most people already have bottles of that in their in their graveyard of supplements, or they're abandoned cupboard or shelf or drawer of supplements.

Yes, probably. And I think you put me on all three of these because I just didn't have enough of all three of these. And it's it's fascinating to hear how high your, your intake of vitamin D can, can get and still be safe and.

Oh yeah. And read it. Yeah. You can't you can't do that with all supplements. But vitamin D you can dose pretty high. Yeah. Maybe. Yeah. Thank you for that.

You know, and so you've got, you've got this great 21 live, 21 day, I should say, live journey coming up. And this is to help our summit viewers that are watching now.

And it's a journey that is going to help viewers become the most energetic and focused people that they want to be. With more education and more support, can you share a little bit more about it and how to get access to the program?

Laura. Yes, we have a live 21 day journey coming up to help our summer viewers. Really, just feel amazing to wake up each day feeling purposeful and energetic and, each of those, you know, three weeks, I'm going to meet with you twice a week, and that means you're going to have six touchpoints with me as you implement the strategies that I teach during the course, you'll have sustained focus when working on important task and be able to keep up with your family mentally and physically.

This is so important to everyone. I talk to you to keep up with their spouses or to keep up with their kids. A lot of my clients have teenage kids or adult kids or even grandkids.

He'll know what foods to eat in which to avoid in order to maintain maximum energy levels. You know what products to keep in your home and what will contribute to your long term success, and what you should get rid of the sneaky toxins in your home.

They're zapping your energy. You'll have a clear understanding of which supplements will support your energy and how long you should take them. So yes, I went over a lot of supplements tonight.

Today and I will go over even more in this, in this 21 day.

21-Day Energy Reset Program and Closing

That's going to be very specific to, supporting you with a with guided support from me. If you live in the United States, the program will include optional curated supplement protocols to speed up the process for you and have you feeling amazing.

So I put together the best products on the market to give you the fastest results I can, and simultaneously set you up for the foundation for long term healing, healing of inflammation, healing of leaky gut, chronic symptoms and everything I do is with the purpose of permanent results.

We don't want temporary hacks. We want you to feel good so you can go to easy energy reset.com and learn more and get access. Wonderful. So that's easy energy reset.com.

That's that's perfect. Thank you so much Daniela. Thank you. Thank you Laura. This has been great. And everyone enjoy the summit. There are so many incredible speakers on here.

I encourage you all to find your people, find the practitioners. That makes sense for you. Find the people that have resources that solve your particular problems.

And and looking forward to seeing you in the 21 day energy, energy reset. Take care everyone. Bye now.