Introduction to algae for fasting and longevity

Welcome to the Fasting & Longevity Summit. I'm your host, Dr. David Jockers, and I'm excited about our guest, Catharine Arnston. She's an expert in algae nutrition.

She runs energybits.com And we're going to talk about how to use algae to support your mitochondria to help reduce inflammation in your body, to support longevity and how you can actually use it while you're fasting as well to get great benefits.

So we're going to talk about Spirulina, Chlorella and how these are some ancient superfoods that are often forgotten and have tremendous health benefits.

So you guys are in for a treat here with this interview. You were going to be inspired and educated as well, and I think you're going to walk out with some practical action steps to really improve your health.

And guys, definitely check out energybits.com they've got some amazing products and you can use a coupon code LFS at checkout that will save you 20% off at energybits.com.

So without further ado, let's go into this interview with Catharine. While Catharine Arnston on here with me, one of my favorite people to talk to, just a wealth of knowledge when it comes to algae, which is something that I personally use my children use.

In fact, she has got these great this great company energybits. And I give my children their age in these little Chlorella tablets because Chlorella has amazing health benefits that you guys are about to learn more about.

And Catharine, just a wealth of knowledge and an algae expert. So, Catharine, always great to talk to you. Let's let's start by like jumping into spirulina and chlorella, right.

Benefits of those kind of. What are the differences there? Sure. Well, you meet your audience that they haven't heard any of our previous conversations.

Spirulina vs. chlorella basics

Algae is a food. And that's really important for you to understand. It's not a it's not a supplement. Supplements are made from extracts that don't exist like that in nature.

And they use high heat to mash them up. And so it's really hard for your body to absorb the nutrients, so you waste a lot of it. Algae is not like that. It is a food crop.

Wheat growers in a fresh, triple filtered spring mountain water. I'm going to show you a picture of of a some of ours of spirulinas and chlorella farm.

And the reason why that's important to know is because algae people think of algae in the ocean. and think of toxicity. Well, ours does not come from the ocean.

Yes, there is algae in the ocean, but not ours. And also algae absorbs whatever is in the water. So the fact that ours is triple filtered spring mountain water protects you from any toxins, though.

We do third party lab tests here in the US to prove that. Then the next thing you need to know about algae is that after we grow it carefully, we air dry it without high heat into a powder, and then we press them into the little tablets that we call bits because they're bits of nutrition, like as you're giving your children.

But what and we'll go into this and deeper in a deeper dive later on. But this whole issue that we do not use high heat is really critical and separates us from virtually all the other algae companies.

And here's why. A number of the key nutrients that are found in spirulina and chlorella are our enzymes. A very important one. It's a long mouth. It's a long one.

It's a superoxide dismutase, also known as SOD. And it's been proven to protect your mitochondria from damage, which also means it helps protect you from Alzheimer's.

It protects you from heart disease. That's pretty important. The other important nutrient that gets killed by high heat is the blue pigment in spirulina called phycocyanin.

And it's really hard to say it's page p-h-y-c-o-c-y-a-n-i-n blue phycocyanin. that pigment is proven to kill cancer cells. And we'll go into some of that in greater detail.

So none of the other companies that are lower priced, higher volume, we may have to get to market quickly, have these nutrients alive because they have to use high heat to get to market quickly.

And we have never done that. So so when we talk about the two algae, there's different nutrients in each one that have incredible healing benefits and properties beyond the fact that they are also rich in 40 other vitamins and minerals and and protein.

So so let's dig into some some of these these two algae, by the way, they are so nutrient dense that each tablet has the same nutrition as an entire plate of vegetables.

And that's based on a quote we have from NASA's. It says, one gram of algae has the same nutrition as a thousand grams of fruits and vegetables. That's pretty amazing.

But they do different things. So let's talk about them. Spirulina is a blue green algae and it has that blue pigment in it called phycocyanin. And we'll talk about later on.

It also has chlorophyll, which is the green pigment, but spirulina's claim to fame is that it's very energizing. It gives you energy in the moment as well as at the cellular level.

At the mitochondria level, mitochondria, which we'll get into later are what generate ATP and as you're going to find out, fasting and algae are the two best ways to help your mitochondria generate more ATP because they both of them create virtually no free radicals in the process of production, fasting and algae.

We'll dig into that in a minute. So spirulina is terrific when you're doing fasting. It does not interfere with your fast, nor does chlorella. But what spirulina does is it gives you energy.

It satisfies your hunger, it gives you focus. And how does it do that? Well, has 64% protein bars does. That's three times the amount of protein as steak.

Now, you know, I'm I'm I'm a I'm a meat eater. I very, I grass-fed. But, you know, when you're on a in a fasting window or when you're traveling, you know, you can't be whole on around big chunks of steak with you in your pocket.

So having spirulina tablets, which we call energybits with you, can give you the energy, the focus, satisfy your hunger without decreasing your ketones, without breaking your fast and without increasing your glucose.

So it's great if you're diabetic. It's great if you have if you have any kind of insulin insensitivity. It's just great, period, because all you have to do is swallow these things.

Spirulina for energy, focus, and fasting

I will say most people do swallow spirulina. We call ours energybits because it gives you energy in a bag it has equivalent nutrition of 551lbs. of vegetables.

Now the energy you get is not like a stimulant. It's not like caffeine, chemicals or sugar, of which there is none in spirulina. It's from nutrition. And the way it works is that all of the protein and there's 64% is in amino acids already.

So it requires no effort for your body to break down, which is into aminos. Animal proteins are bound up. Collagen protein is in smaller clusters called peptides, and algae protein is in individual aminos.

So your body gets access to all this rich protein in amino acid form instantly. So it's 99% bioavailable and it's loaded with B vitamins which convert the protein into energy.

So that's what where you get the immediacy of the energy. But again, it's very quiet energy, not like a rush, not a crash. It just sustains you. I call it quiet energy.

And there are a. Lot of minerals in there as well, because those are key magnesium, different electricity. All the all the electrolytes. So it's very, very good for for that purpose.

So very nourishing doesn't interfere with your fast, very effective, concentrated nutrition and effortless. I keep talking about the effortless nature of it because, you know, you take ten in the morning with a glass of water that's ten calories, zero carbs, zero carbs, and you'll be nourished and energized for a couple of hours.

And, you know, it's how I start my day. I don't I'm trying to get to one meal a day, sort of meal and a half, but I use my spirulina chlorella all morning until about two.

And then I have a proper meal. So it really works. And at the level of the mitochondria, it gives you even more energy because it, we'll talk about that later on.

It protects the mitochondria from free radical damage, not only because it releases virtually zero free radicals in the process of being digested and converted to ATP.

But also it has those nutrients like that enzyme called superoxide dismutase, which has been shown to to stop free radical damage. And we'll get into that later on.

So that's spirulina energizing, nourishing at the cellular level. And in the moment, zero carbs, great for intermittent fasting, does not interfere with your fast.

Yeah this is key it is key to I want to add in this this idea that, you know, we know that mitochondria produce the energy and really like the brakes on the mitochondria are going to be the free radicals and toxins.

So the more toxins, the more free radicals, pathogens, things like that that are, you know, impacting the mitochondria. That's the breaks. And that's going to be the brakes on your energy.

Yeah. So the more we can lift the brake by getting rid of the toxins, by neutralizing free radicals, then the better sustained energy we have throughout the day.

Yeah. And then the mitochondria are healthier so they can perform autophagy which is killing themselves when they know they've, you know, it's time to go.

It's sort of like knowing when it's time to go into retirement. And if they don't, if they aren't healthy and they are damaged as what happens from the free radicals, then they become senescent cells which are inflammatory and they don't die.

They just hang around and cause problems. So so like the person who should be retired, but they refuse to go. So? So you do everything I tell people everything you should do is to to propel, protect and and improve your

mitochondria because that's the answer to everything.

Longevity, wellness, energy, focus, it all is is all based with mitochondria health. I tell people I never eat alone. I always eat with my mitochondria.

Yeah, absolutely. So key. So we've got to keep our eye on those mitochondria and like you mentioned, fasting and then also algae. Really critical, critical key key components to having healthy mitochondria, particularly spirulina.

And so spirulina, think of spirulina again. We call our energy hours energy bills as a mitochondrial defense. And we'll talk a little bit about the brain because your brain has the highest amount of mitochondria.

PACELLE There's 2 million per cell. So spirulina is very much a brain food. And it's no surprise because people know that fatty fish is brain food, right?

And a lot of that is because of the omega three found in the fish. Well, where do you think the omega three, the fish get the omega three from? They get it from algae.

So it all starts to make sense that spirulina is brain food, is mitochondria food, and it's what people have been using for, for centuries. But the spirulina that we sell is so safe, so clean, so toxin free, so concentrated, and so much easier than cooking all the time. So.

So when you travel or or just to get your day started, it's terrific. So let's switch over to Lorella, because it's a completely different algae. It's a green algae.

Again, spirulina is a blue algae. You can see the difference in the color. So it only has one one pigment and that's chlorophyl. And in fact, and we call our our story, our Corolla is called Recovery Bits because it helps you recover your health.

How does it do that? Well, two ways.

Mitochondria, free radicals, and cellular energy

It has the highest chlorophyl in the world, has 500 times more chlorophyl than arugula, and it has 25 times more chlorophyl than liquid chlorophyl. What's so important about Chlorophyl one?

I show you a picture here. This is a chemical composition of hemoglobin and this is the chemical composition of chlorophyl. They're virtually identical, and this is because Chlorophyl builds your blood.

But the trouble is, there's virtually no chlorophyl in our vegetables anymore. And if you are fasting or you want to reduce your carb load, you may not be eating many vegetables at all, but even if you were, you're not getting the chlorophyl that has medicinal properties because there's not enough of it.

So Corella and again, we call our recovery this is your best solution is to get that chlorophyl Now the other thing that's interesting about Chlorophyl is it's a fat based pigment.

We know that all of our cell walls are made of lipids, which is a fancy way of saying fats and you need these healthy fats in order for nutrients to get in and toxins to get out.

And that's why we have vitamin E and vitamin D and Omega three. Well, CHLOROPHYL all because it's a fat based pigment, which is different from the blue pigment in spirulina, which is a water based pigment that the fat based pigment called chlorophyl heals your cell walls, just like in omega three, just like a vitamin D.

So very healing to the to the cell wall. So that's number one way helps build your immune system. But the most important thing about chloro is that it pulls out toxins, all kinds of toxins, lead mercury, radiation, aluminum, glyphosate, anything that shouldn't be in there, alcohol, lactic acid.

And this is the other reason why people are getting ill, why their mitochondria aren't functioning, why their brain fog is there. Well, it's hard for them to lose weight.

Why they have metabolic health issues is because of the toxic load. I read that the average adult in America has almost 800 toxins in them and our immune system is just simply we're not built to support that.

So chloro of pulls those out now it does not pull out anything good. It leaves all the minerals there, which is different from activated charcoal which can pull out any minerals.

It leaves all the good minerals there and only pulls out toxins and it introduces minerals like spirulina. It has 40 vitamins and minerals. So the detox capability, the cleansing of the chlorophyl, the healing of the cell walls, the building of your blood, and it has fiber.

Spirulina, I forgot to mention, does not have fiber because spirulina is technically a bacteria. This is why it gets absorbed so quickly, because there's nothing for your body to break down.

There's no cellulose wall, pleural air because it has the hardest science while has fiber. And that's important for healing your gut biome. And by the way, 80% of your immune system is in your gut.

So chloro is very much a detox gut health algae. So and spirulina is a nourishing brain health algae for them. So this builds your mitochondria and your brain and nourishment and corella pulls out toxins, builds your immune system and is good for gut.

Now the interesting thing is your gut is connected to your brain from the with the vagus nerve. So maybe you're taking spirulina for the for the nourishment and the hunger satisfaction for your fasting window.

But because your brain is connected to your gut, your gut health is going to improve, too. On the other hand, maybe you're going to take Lorella to build your immune system and heal your gut.

But because it's connected to your brain, it's going to facilitate improvements in your brain and to help people understand the difference between the two of them.

I came up with a fun analogy because I speak at a lot of conferences at LA Fancy Hotels and you know, you get room service in in these fancy hotels and room service brings you everything you need for the day.

Nourishment, that's like spirulina. You take this in the morning and nourishes you and gives you everything you need for your day, just like room service.

Now, later in the day, the housekeeping team come in and they clean out your room and get rid of all the stuff that you don't want. That's what Lorella does.

So think of it as housekeeping. So spirulina is room service, chlorine. What is housekeeping? So you can start to see how different they are. Again, spirulina is really a brain food and corella is a gut food.

And so the two of them together are really your super give you back your superhero strength. Yeah, it's a great explanation. And also like you talked about with that, the Chlorophyl content that's in the Corella, you know, we know like, like you showed in that diagram that that Chlorophyl has the same structure as hemoglobin.

The only difference is the binding mineral, which is iron in hemoglobin and then magnesium in corella. And we know magnesium is one of the biggest deficiencies that we see in our society today.

In fact, they say magnesium is the body, what oil is to a car, more stress we're under, the more magnesium we need. And Chlorophyl is one of the best sources of just pure magnesium into the body and so, so, so powerful.

And then there's also a connection between the chlorophyl content that we're consuming in our diet and the sun.

Right. We know that, of course, plants are photosynthetic.

So as long as they've got water, you know, soil with minerals and then they've got their their chlorophyl content along with getting sun exposure, they're going to be able to produce energy.

And there's a we have a great beneficial impact on our mitochondria when we're getting sun exposure, all the different rays, infrared, the ultraviolet along with having chlorophyl basically in our diet.

Yeah. Well it's a great point and we'll get to the mitochondria piece in a minute, but I just want to dwell a little bit on that chlorophyl for energy production because also the Blue, if I cosign in in the spirulina does the same thing and I don't want to get too deep in the weeds for people who aren't too geeky, but when your body is creating or your mitochondria are creating this ATP it the way it does it, it transfers electrons from these different stations is called the electron transport chain and the way I help people understand what that is is, you know, we've all seen relay races where there's a series of runners, they have a baton and they pass the baton.

They run a certain distance, pass it to the next runner who goes to the next distance. And then the goal is to cross the finish line first. Well, in your electron transport chain, it's very similar, except what's being passed along our electrons instead of a baton.

Chlorella for detox, gut health, and recovery

And there's two things in that process that that can either be sped up or, as you mentioned, be a block break to that process. Now, one of them is a molecule which you've probably heard of called CO, Q10, and Coke.

And the other one we're going to talk about is the cytochrome C molecule. These are little helper helper molecules that speed up. It's like having one of those runners suddenly get a jolt of electricity or something.

So these little molecules speed up or slow down based on what's available. So the CO Q10 molecule, what happens is when your body has chlorophyl and you're exposed to a red light, either sunlight or red light therapy, it recycles the CO Q10 molecule, so it speeds up and generates more energy automatically.

But then if you don't have that access, this is one of the breaks that slows down the production of ATP. Now, remember, ATP is generates energy for everything.

It's not just for running errands at the store or going for a great workout. It's walking, talking, sleeping, breathing, heart beat, lymphatic system, everything.

When you have more ATP energy, I tell people it's like money. You can, but when you have more money, you can do more things and you have more choices.

More ATP gives you better health, period. So the fact that the CO Q10 molecule is is sped up in the production of ATP thanks to Chlorophyl, which of course is in the highest concentration.

And Corella is pretty cool. Now the other little helper molecule is and by the way, CoQ10 is a fat based molecule. God bless Mother Nature because she also gave us a water based molecule called Cytochrome C.

That's the other helper molecule. Now the cool thing about cytochrome C is that it is triggered to move quickly by the blue pigment in spirulina. Remember the chlorophyl is the pigment that speeds up the coq10 molecule, the blue pigment called phagocytes, and speeds up that cytochrome C molecule.

So this is one of the other reasons why spirulina gives you so much energy because it speeds up that will help her a molecule called cytochrome c and it also has chlorophyl in it.

So it also speeds that one up too. But here's the really cool thing and we'll get to this in deeper. Dove in a minute. If your if your cell is either cancerous or as senescent cells, the blue pigment recognizes that.

And ejects the cytochrome C molecule which then kills the cancer cell or the senescent cell. Talk about brilliant. This is Mother Nature at her best it and this blue pigment does not exist anywhere else in nature, only in spirulina.

So it's very selective. If you're healthy, it speeds up your energy for you. And we want that if you're unhealthy, your cells onion, it kills it. Pretty sweet.

In fact, the chemotherapy companies already use bioscience. And so you can Google fight or sign any cancer treatments and see that it's already being used.

So how brilliant is that? But again, the blue pigment is damaged, destroyed by high heat. So this is why you don't get that benefit when you are buying at a lesser quality, lower price algae. But people, you know, just say you must.

You're so in love with algae. And it's true because I have learned so much about what this these algae do for us. Don't think of them as something that's closing your favorite beach.

Think of these as the answer to your health. And they're effortless in any whatever health condition you're in. It can be corrected, but you have to give your body what it needs and remove what it doesn't.

And whether it's improving your fasting window, improving your metabolic health, improving, you know, getting off of diabetes or any kind of other ish health issue, cancer, heart disease, these two, which are food, not drugs, not a supplement gifted to us from Mother Nature, are your best solution.

Yeah, really powerful stuff. And and with chloral Ella, in order to get the best absorption to it needs to have cracked cell wall. Is that correct? Can you explain. That? Yes.

So as I mentioned, spirulina does not have a cellulose wall, so doesn't have to be cracked to get access to all the nutrition. Chloro does have to be crack because it has that very, very hard cell wall that would not allow the 40 vitamins and minerals and 60% protein to get to your body.

So the FDA has regulated that all Lorella sold in America must be cracked cell wall. Other countries sell non crack. But I would say why would you buy non crack?

Because you're not going to get any of the nutrition. But the but to let you know, it's a it's a very complicated process. There's a company called Sunk Lorella, which I'm very grateful to.

They were the first company in Japan in the world, right to grow Lorella for mass consumption. And they figured out how to crack the Lorella. And what they did is they tumbled it with glass beads, so it physically smashed up the the cell wall.

But the problem was that the glass heats up and led from the glass leaks into the corella. And they had some tests done and they their lead levels were too high.

Now, when I was starting the company, I started the company. I was even starting a company. I just wanted to help my sister who had breast cancer because her oncologist told her to change her diet to an alkaline. Right.

So anyways, everything we've done here is to improve people's health and to do things very thoughtfully and carefully. When I learned there could be lead leaking into the corella by the technique that everybody uses because everybody uses that technique as well, it's not going to work.

We found a more modern, more expensive but effective way to crack the corella. And that's what we use. We we pass it through a sound chamber. So it's vibrations that are cracking.

The pleural is sort of like how a opera singer can crack a glass with the vibration. So I chuckle because somebody once said, Oh, your plural has got good vibrations.

Very sort of California. Right? So so anyways, that's just one more indication of the quality that we and the level of detail that we go to because we don't sell anything but.

LG That's it. Well, I'm an algae expert. I'm an algae nutrition expert, and I'm very eager to help people understand the science of of what it does and why it does it and how to ensure you're getting the best quality.

So that's another sort of nuance of the production. I tell people, algae isn't like broccoli, it's more like wine. And wine is affected by the angle of the sun.

How chlorophyll and phycocyanin support ATP production

It's affected by the way that you produce it, that you know, the quality of the production. So is algae. So that's why I'm very proud of what we do. So we can you can give our algae to your newborns, to your pets, to your grandparents and know that it's the safest, most nutrient dense food in the world.

And as I mentioned, we do third party lab tests here in the US by an FDA approved lab. So because we sell through doctors like you, you know, so it's it's honestly our world.

We're in such a crisis. We're in a environmental crisis. We're in a health crisis. We're in a mental health crisis. And all roads lead to mitochondria to protect everything.

And all roads lead to algae to protect the mitochondria and I'm up when I finish up, I'll also let you know that the your mitochondria in fact evolved from algae.

So it's no surprise to me that they they, they work really well together. Yeah. What I love about algae and what you guys do is that it's really a functional food.

And we know that chronic diseases is really toxic, shitty and or deficiency. And most people in our society are walking around too much toxins like you talked about, and then they're also deficient.

And in a sense, it's like a vicious cycle. The more toxic you are, the more you're going to have trouble absorbing nutrients, the more nutrient deficiencies you have, more trouble you have detoxifying.

And so you really need to hit both of those things. And that's really what the algae does. Is it detoxifies you? While it provides key nutrients with minimal stress on your gut?

We know that, for example, you were talking about vegetables, great source of nutrition. You know, I recommend people are eating vegetables, organic vegetables, grass fed animal products.

But at the same time, they're also stressful on the gut. Right. In order to pull the nutrients out, some things have anti nutrients like, you know, a lot of different plants.

Spinach has oxalate, lectins, a lot of these anti nutrients that can be stressful on the gut. With meat, you need good stomach acid production. A lot of people that are dealing with chronic disease are struggling to produce stomach acid in order to break it down, metabolize it.

So with the algae, you don't need any of that. Yeah, it's just pure nutrition and detoxification with minimal stress on the gut. Yeah. Thank you for mentioning that because on the lectins and oxidase for people who don't know what they are there in plants, in particular plants like nightshade, vegetables like tomatoes and red peppers have very high amounts of them.

Almonds are very high in. Spinach and. Spinach. And so the plants are evolved to develop these oxalate and lectins because they they're very sharp proteins.

They damage the stomach lining of animals and predators just like they do us and they taste terrible. So it keeps

bugs and predators away from the plants.

But algae doesn't have any lectins or oxalate because it's never been a land plant. It grew, it initiated out of the ocean. So so whether you're a carnivore, paleo vegan, you can have algae, it's zero carbs, zero sugar.

And it and the and it's not just what you eat, it's what you absorb as you as you rightfully point out. And so because they both algae partake in spirulina as the fastest nourishing food in the world, so it's putting nourishment in.

And as you mentioned, people are missing and chloro up pulls toxins out. So nourishment in, toxins out and both of them nourish your brain and your body and your gut.

And I was I've gotten I work a lot with the brain tap people. They have a device that helps your brain development, better neural pathways. And they've done some research to show that when you're when your brain is is also nourished and the pathways are healthy, you are able to absorb 30% more nutrients.

I thought that was fascinating because spirulina is really great for brain health. So again, remember I mentioned the beginning when your brain is working, you're going to have better digestion and better absorption.

And so it just reconfirmed that their science says that as well. So it's pretty cool. Yeah, really good stuff. Now I know you've touched on the differences between your the energy bits, right.

And the products that you guys are making versus Corella Spirulina. People could buy out there. You know, a lot of Green's powders have have Corella or spirulina in them.

You can go to different you know, big box stores and you can find Corella and Spirulina. And you were touching on kind of the quality aspect of it and why that's so important.

Obviously, most people out there, they hear about all these benefits of coralline spirulina. They just think everything on the market is the same. So can you touch on that one more time?

Yeah, well, I'm going to talk about two nutrients in particular. There's many more. But these are the these are the two that are really that come right down to the big division.

And one of them is an enzyme called superoxide dismutase, also known as sod. And the other one is that blue pigment in spirulina called phi cosine. So what's so important about them?

Well, I didn't get a chance to show you this, but in your cell is where you might have your little mitochondria. And in your mitochondria, that's where your ATP is produced.

And a byproduct of the ATP are free radicals, but your mitochondria have their own DNA, which is also located right where the ATP and the free radicals are.

So they're constantly being damaged because inside the cell wall is where all that all the free radicals are, which is where your mitochondria probably, you know, they have their own DNA.

So this is and when your mitochondria DNA get damaged, they die, they mutate, they cause all sorts of damage. Your health starts to suffer. And so the key is and here's a picture of healthy mitochondria and here's a damaged mitochondria.

See all those empty spaces. So when that electron transport chain is trying to transfer those electrons, they can't because they don't have it's like asking Tom Brady to do a pass in a stadium that's five times the size of a normal stadium.

So they constantly are getting damaged. So the trick, as I mentioned, is to healing your mitochondria is either to reduce your free radicals or remove them.

Why product quality and low-heat processing matter

And at the start I mentioned that, you know, algae and fasting are the two ways to reduce free radicals. Carbs, processed carbs generate the most free radicals.

That's sugar, white things, baked goods, pasta a or low carb diet releases fewer carbs. So you're automatically helping your mitochondria algae and fasting.

Virtually zero carbs are zero free radicals. So automatically that prevents your your mitochondria. And we need it we need some free radicals. The key is to get it under a certain amount, certain threshold homeostasis.

And it's good to have periods of time where we have little, very little free radical production. And that's kind of where the fasting comes in. Obviously, we're not going too fast forever. Right.

Right, right. We're going to eat. We're going to produce us free radicals. When we exercise, we produce free radicals, too. Yes. But then our body creates.

If it has the resources it needs, it's going to create a stronger endogenous antioxidant defense system. So it's going to adapt to it. The key is, you know, we have to be able to to adapt properly.

We have to be able to recover and have the nutrients we need. But yeah. But so if you're not eating properly or you're not fasting, you are generating a lot of free radicals which damage the mitochondria, cool the mitochondria cause a lot of mutations which cause your health to slide.

And the problem is normally you would have antioxidants that would go in, get into that cell and and because we know antioxidants stop free radical damage.

But what I didn't point out is your mitochondria are the only cell in your body with two membranes. And because there's an inner membrane, it prevents virtually all antioxidants from getting in there.

There are a few that can get in there. One of them is called superoxide Disney cheese. Another one is glue to thiamin, but you can't find superoxide dismutase in any food and your body normally makes superoxide dismutase for you from the moment you're born until you hit about the age of 30.

And after 30 years, it's drops and drops until you're older and you have virtually none. This is exactly when disease, chronic disease, heart disease, brain fog kicks in, metabolic health, diabetes is exactly.

And I think it's because it's when your mitochondria aren't being protected anymore. But the good news is algae, particularly spirulina, has the highest super oxidants in the world.

And what superoxide dismutase is it converts free radicals into harmless water. Problem solved. But if you. But it's an enzyme. So if you don't if you have algae, that's from anybody else.

The only other spirulina I can recommend is Rose and Spirulina because it too has not been exposed to heat. Heat kills enzymes, all enzymes. And since superoxide doesn't taste is an enzyme, it gets damaged.

So it basically is like a fireman putting out the fire of free radicals in your cells. But all the other algae companies use high heat to dry it, so you're not getting that benefit.

So I think and there's 25,000 studies that have proven that superoxide dismutase prevents heart disease, prevents Alzheimer's because it protects the mitochondria.

So you're shooting blanks. If you buy that cheaper algae. Yes, you'll still get some protein. Yes, you'll get some nutrients, but you're not going to get the full.

You deserve better. Honestly And because ours is so high quality, you get all those nourishment. And if you took ten tablets a day, I did the math. It's a dollar a day.

I think your health is worth that. You know, a dollar a day if you're taking ten tablets a day. So so that's one of the most important things about Spirulina and us is that our superoxide dismutase, which protects your mitochondria because it's one of the few antioxidants that can get into your inner membrane and stop that damage and it's not available in anybody else's algae because they use high heat.

The other powerful nutrient I want to talk to you about is that blue pigment again called phi cosine, only found in spirulina, nowhere else in the world.

And as I mentioned, it has this ability to either speed up that molecule called cytochrome C in a healthy cell, but in an unhealthy cell it like is cancer cell or what's called the senescent cells, which is a zombie cell.

It kills them. And I'm going to show you a really cool science paper that I saw. They took cancer cells and dyed them purple. So here's where they started and they added some blue by cosine and into the petri dish.

This is a time release series of photos, 24 hours, and the cancer went from there. So they're virtually gone in 24 hours just by adding by cosine. And now what I want you to know is I did I dug into this report and found out that the amount of five cosine and that was used to kill all these all this cancer.

One tablet of our spirulina has 4000 times more fibrosis and then was used in this test. So our bodies always have cancer cells in them and and but they don't necessarily evolve into a cancerous disastrous diagnosis.

If we have a healthy body and we have a healthy immune system. But that, you know, these days, virtually nobody has a healthy body and a healthy immune system.

40% of Americans over the age of 40 have a chronic disease. And when you get to 65 and I'm over 65, 80% of Americans have a chronic disease, 80%. I have no chronic disease. I take no medications.

I just take a lot of energy. So you're not. Hard to believe that you're over 65? I'm going to say. I would have said maybe 50. Yeah, yeah, I'm I'm turning 67 in ten days.

Good for you. You know, I mean, I'm inching toward 70, ladies and gentlemen. And I have a very active mind. I'm very active physically. My skin looks great.

By the way, free radical damage occurs in your skin as well. And the algae protect you. It has more college and than collagen powder. I'm having kind of a bad hair day, but normally and this is.

All my you look you look great. You look great. You're definitely you definitely, you know, just kind of looking at you and then just listening to you.

I think people are definitely influenced by the fact that you're aging well. Your brain is super shiny. Your skin looks good. You know, I know that I'm going to live to 100, honestly.

I know I'm going to be. And I had some blood tests done recently.

Clinical benefits, product lineup, and how to use EnergyBits

And I have all my everything is normal. And I did a sort of a biomarker test. The brain type people have this thing trying to think the name of it. Anyways, my biological age is 30 to 67.

I have cut my biological age in half from algae. You know, it's funny because I was reading a lot of news articles recently about some guy, a very wealthy entrepreneur, who's been trying to reverse reduce his aging process.

And he's been doing he's been spending like 2 million a year. And after two or three years and about five or 6 million, he's been able to cut five years off his biologic goal age.

You know, when you buy our algae, again, a serving of ten, ten tablets is a dollar a day. A is, you know, $6. So I've cut my biological age in half. I've taken over 30 years off my age, and I only spent the equivalent of $6 a day because that at least a hope out today.

So you tell me who is the smarter person here? And by the way, you don't have to go and spend 50,000 on STEM cell therapy. You don't have to buy your own cryotherapy machine.

I mean, those are all things that could, you know, increase your livelihood and your longevity increment early. But I am here to tell you, the easiest, absolutely scientifically proven and I'm an example of it is algae.

And you can do it in the comfort of your own home in seconds. And it's there's no drug interactions, say, for every member of your family. You don't have to get any kind of medical device approval or blood test, nothing.

And in fact, speaking of which, if you are have a health condition, you do need about two or three times more than the ten tablets a day. You would need at least 30.

But we get people sending us their lab tests after they've been diagnosed with cancer or Alzheimer's. And within days, literally, they send they send us their lab tests and their and their blood work is vastly improved and the diagnosis are changed.

So so I'm here to tell you that algae has the nutrients that your body is craving and desperately needs and is not available in any other food or even from other algae companies other than frozen spirulina.

And and it's a gift to us from Mother Nature. I mean, it was the first life on Earth 4 billion years ago. So we just needed people to understand what it is and make sure we give them a safe, carefully grown version of it.

Because, you know, there's a lot of it out there, but most of it's not getting value to your body or to your mitochondria. Yeah. Now, when people go to your website, you have you have, I think three different main products. Right.

Can you differentiate those for us? Yeah. So we only we sell to algae, spirulina and Morella. But what I do and you know, we have two brands of spirulina, we have the original brand called Energy Bits and we have a brand called Beauty, but they are identical.

And the reason why there's two I'm not trying to trick anybody. I started the company because my sister had breast cancer. Women's health has always been important to me, but after a couple of years of just selling the spirulina, I noticed we, you know, we didn't have any women customers.

And my my female friends said, well, you got to make it pink and give it a cute name. And because it builds your skin and hair, because there's more college and in college power and stuff through radical damage.

And I'm so want women to feel the health benefits of spirulina. I made a second brand. I designed everything, by the way, and it's called the beauty bits.

But they are identical, by the way. You can buy them in large bags or you can buy them in canisters. The canisters are adorable. They come with a bag inside, you open the bag, put them in the canister, and then you just shake out your tablets.

And when you run out of tablets, then you buy a large bag to refill. So the canisters are a one-time purchase and then you refill with the bags. So that's spirulina two energybits and beautybits, absolutely identical spores.

Love the beautybits. It's very girly. And so and we even have it. So it even has its own Instagram, which is

Beautybits. The other algae is Chlorella and it's a green algae, which is why it's packaged in green.

And it is a plant. Why it's why there's a leaf on the on the package. And again, spirulina is a blue green algae, which is why it's in blue. And it was the original life on earth came from the ocean, which is why it's in the ocean.

I tried my best to give you guys cues to remember what the different algaes are. So this one's the wellness algae. It's called recoverybits. this is the nourishing, energizing algae in the moment.

And for your mitochondria and for your brain, chlorella is for your gut, health, wellness, and detox. Now, in case you don't, we encourage you to buy them separately because in the morning that's when you're tired, that's when you're hungry, that's when you're getting out for your day or that's when you're going for a workout.

So we recommend the Spirulina because it's the only one that it will give you actual energy and nourish and nourish your hunger. Both of them are ketogenic.

Both of them have zero carbs. And then we recommend the chlorella before bed because that when you're sleeping, that's when your body goes through a detox repair cycle.

And chlorella also has the highest tryptophan in the world, which is a precursor to melatonin and serotonin. Melatonin helps with your sleeping. It won't make you sleep.

You'll just facilitate sleep when you can get you into a deeper sleep. So it's a better algae to take at night, but you can take any of them any time of day together with food instead of food as much as you want.

You know, you could take hundreds if you want, but your poop will be green. But if you don't want to take them separately, you know, remember AM Room service, PM Housekeeping.

We do have another brand called Vitalitybits, which is a blend of the two algae. So it's a blended tablet's not like have spirulina tablets have chlorella, it's blended.

And so this is for people who just want simplicity. So you would take ten in the morning and ten at night or as many as you need it again, if you have a health condition of any kind, diabetes, anybody, metabolic health issue, brain issues.

We did a clinical trial recently on our own clinical trial and we in 30 days reduced brain inflammation completely. So and there's a really great book called Brain Energy that Dr.

Chris Palmer recently wrote about how all brain issues are really damaged, mitochondria issues. And so spirulina is the answer to protecting your brain because it protects your mitochondria.

So so that's the round up we have two spirulina. Oh, sorry. Two spirulina, one blue and pink. We have one chlorella recoverybits and then we have the blended algae and our website is energybits.com e-n-e-r-g-y-b-i-t-s.com and we have a 20% discount code for everybody on the summit its LFS, which stands for Fasting and Longevity Summit, and it works on everything all the time.

So don't panic. But if you aren't ready to buy a bigger canister or larger bag, you can also go to Amazon and buy individual pouches for $6, try them out, feel you know, make sure that you know that you're happy with them and then come back to the website and use your LFS discount for any purchases.

And just to remind you, there's so much nutrition in these algae tablets that a bag or a canister has the same nutrition as 551 lbs. of vegetables. Now that's 551 lbs. of vegetables you don't have to carry home, clean, cook, eat, argue with your kids, eat them, throw them out when they didn't.

So it's very efficient nutrition. I'm not I'm not suggesting you only eat algae because I don't eat real meals, but it's a it's really your nutritional insurance.

It's I call it your health insurance too gifted to us from Mother Nature and the two of them combined, the spirulina will protect your mitochondria so you can get rid of all that damage.

And the chorella will remove toxins so we can flatline inflammation naturally. No drugs, no interventions, just plain nutrition, whole foods. This is a whole food.

And that's the answer to to good nutrition. Love it. Thanks so much, Catharine, for your passion and all the great work that you guys are doing with Energybits.

Guys, definitely check them out. Something my family and I use as well. And Catharine just a wealth of knowledge. So thank you again and. Thank you for what you're doing.

I appreciate you so much. We'll get you some more soon. Sounds great alright.