The Healing And Energy Benefits Of Algae Transcript

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Introduction and Guest Background

– Welcome to another session of Reverse Inflammaging Summit Body and Mind Longevity Medicine. I'm your host, Dr. Stephen Sideroff. And I'm so pleased to have during this hour, Catharine Arnston, who is the founder, Ceo and Chief Scientific Officer of Energy Bits.

Catharine. Welcome to our program. – Thank you so much, Stephen. I'm so thrilled to be here with you and Dr. Lufkin. What a great thing you're doing and, and I'm so grateful to be able to contribute in a small way.

– Yes. Thank you so much. I'm looking forward to our conversation. Can you tell us to begin with how you got interested in this area? – I know it's because my company and my interest is in algae nutrition and algae is quite an unusual thing to be uh focused on people think of it either as pond scum or just something they put in their smoothie. They're not really sure what it does or why it works. And I'm here to tell you what exactly it is.

But nonetheless, I tell people, Algae chose me, not me choosing Algae. I'm actually Canadian. I've lived in Boston for over 30 years and I only mentioned the Canadian piece because through all my schooling was done, I have an MBA did international business.

And then 13 years ago, my younger sister, who I'm very close to develop breast cancer. First of all, I want everyone to know that she's completely healed, which is the most and the best news. But as she was preparing for her chemotherapy, her oncologist, which is a cancer specialist, told her didn't recommend but told her to change her diet to an alkaline diet. Now because it would be important for her healing there. I didn't tell her what it was or why it was good for her. So the first call she made was to me, her big sister who loves her. And I'm also turns out a really great researcher. So I went online like anyone could and found out an alkaline diet was basically a plant based diet and it was the phyto nutrients and the chlorophyll that have been documented to help build your immune system.

So I spent weeks digging through NIH papers or read about 10 books, gave her tips. She changed her diet, she went through Chemo and she completely healed and his 12 years cancer free.

And in the process of helping her, I learned about plant based nutrition. Now, as an MBA, I knew nothing about nutrition as many of your audience may as well, but I saw the science and about how powerful it was and that the word needed to get out about it because nobody was talking about plant based nutrition 13 years ago.

So I gave up my corporate career. I thought, well, I need some kind of certification education. I enrolled in an institute called the Institute for Integrative Nutrition, which gave me a, gave me a certificate in health coaching and a small increments of nutritional knowledge, not extensive but enough. And then I put my own curriculum together and taught plant based nutrition. And this is what truly led me to algae because I would go to corporations and hospitals and give my free workshops, teaching people the importance of eating more vegetables.

How Algae Entered Her Life

And they almost laughed at me because they said, look at my mother's been trying to get me the vegetables since I was a kid. Like you're not telling me anything new, even though I was giving them the science and it turned out the reason why nobody was eating vegetables is because there were too many roadblocks, too many obstacles.

They're heavy to carry home from the grocery store. They take up a lot of space in your fridge. They take a long time to clean, to cook, to eat. There's endless arguments at the dinner table with kids, with husbands. There's a lot of spoilage.

They go bad quickly. You throw out half of it. So I thought okay, I've seen the science. I know what the this stuff does. But if I can't get it into people. We're not helping them and, you know, lecturing people on nutrition has never

moved the needle as I'm sure.

You know, so back to the to the drawing board, I went to everything I found for my sister looking for something that was effortless to get the green nutrition into them.

And when I got to algae, that's when the miracle happened because it turns out, first of all, algae is the most alkaline food in the world. It's also the most nutrient dense food in the world.

I have a quote from NASA that says one g of Algae has the same nutrition as 1000 g of fruits or vegetables. It's been endorsed by the United Nations for 50 years as the answer to world hunger because it has the highest concentration of protein in the world. It's the studied food in the world.

People will be stunned to know that algae is not a supplement. It is a food crop. There is algae in the ocean, but we will tell you in a minute, we grow algae in freshwater.

So number one, it's a food and number two, it's in freshwater, not the ocean. So it's food and there's 100,000 studies documenting so not just one or 100 or 1000 or 10,000, we're talking a big number, 100 thousands of big number uh documenting the efficacy and health benefits of algae. Everything from stopping cancer, stopping heart disease. Alzheimer's inflammation.

The list is endless and it's been used for 75 years daily. In Asia it's a multi billion, that's with a b billion dollar agriculture crop in Asia where they, in Japan they take it every single day. They don't leave their house without clear Ella algae. So, with all this information.

Oh, and the best part is it comes in little tablets like this and every one of these tablets has the same nutrition as an entire plate of vegetables. I just had to play vegetables. Most people swallow them.

But now you can have all the nutrition you need in seconds. You can swallow them. Kids. Pets, grandparents, there is no effort required. They never go bad.

We put an expiry date on them for three years but they actually never go bad and explain why in a minute. This is the answer. This is fast food. This is going to change the world for many reasons that we're going to talk about the anti age Longevity prospect.

But just from a nutritional perspective, this is a game changer. You will never have to worry about getting you or your family, the nutrition you need because it's all concentrated in those tablets.

We encourage people to take five or 10 a day, you know, 20 or 30 is better, but whatever works for you. One tablet probably gives you more nutrition than you've had an entire week. So with that armed with that knowledge.

Sorry, this is so long. But it was quite a process. Yeah. Right. It sort of explodes. The problem with algae is two fold. One up until I came along. Most of it came from China. So it was very low quality and to nobody had explained what it was that it was a plan, Not a supplement and dug into the science to explain why it works so well. So I decided 13 years ago to devote my life to helping the rest of the world, especially here in North America understand what Algae is.

It was the first life on earth, by the way, for a billion years ago. And we'll circle back to that in a minute. And why it is absolutely essential for us at this moment in time where our food supply is so damaged, our soil is useless. Our food has no nutrition in it.

We're surrounded by toxins and chronic diseases, escalating at an unacceptable rate. And I'm going to show you in, in this talk, hopefully how algae can put a stop to all of that and bring us back to health as well as the earth.

I might add. – Well, that's great. And I'm looking forward to us getting into the details of that, but let's take a step back and Katherine, I'd love to get your perspective on aging and longevity. – Well, I know there's a lot of different

theories and I call myself, a citizen scientist because I'm completely self taught.

So there are thousands of people that are far more informed and have a much better including yourself and Dr. Lufkin, met Background. But I have rea probably close to 4000 articles at this point. So I'm as informed as anybody can be and I encourage others to do the same thing or at least read some of the materials I've put together. But it seems to me, in fact, today, there was a big announcement about Dr. David Sinclair with a new, a new theory of on aging and sentient science cells.

But, and I'll explain why algae can actually even help with that. It's a, I think it comes down to two things. We are not getting the nutrition that we need and we have too many toxins in our bodies. Both those cause our cells are mitochondria to stop performing optimally or performing at all.

And you know, you wouldn't think to have your phone operate without plugging it into, to be recharged and you can't run your car without gas. And yet somehow we think our bodies will fund with garbage in it called processed foods. And the science is irrefutable that sugar is inflammatory and inflammation is the source of so much damage and we'll get into that.

So between processed foods, sugar, um oils and that are not, that are interfering with our body processes and then The toxic load that we're carrying.

I read that the average adult in America has 800 toxins in their body. And our bodies just in our immune systems were built to support that kind of toxic load.

And that also interferes with our functioning because it takes over the receptor cells that should be available to healthy nutrients.

Aging, Toxins, and Chronic Disease

So, those two are the perfect storm that's causing everything. And it's you know, it's overwhelming for most people. And the great thing again, I like about algae is that it's a very simple solution and does both of those things.

We'll talk about spirulina being the most nourishing food in the world to both your brain, your body and your mitochondria. And how Clara Ella pulls out toxins of any kind, heavy metals, lead mercury radiation, any kind of toxins.

So the two of them together work in harmony and with simplicity and ease. This is effortless AM and PM, you're good to go. No pharmaceuticals, no surgeries, nothing and no arguments either because, and there's no flavor.

If you swallow them, they're not like fish oil, there's no repeat. So, so that's it. Lack of nutrition and too many toxins. – Okay. So you're just touching on my next question, which was why you think that chronic disease and inflammation are so out of control.

And the problem is escalating. – Well, you know, one out of two Americans. So whoever is listening to this, either you or the person sitting next to you have or will have a chronic disease.

That's unacceptable. That is absolutely unacceptable. And it's because of what we're putting in our bodies, our soils are so over cropped, there's no minerals left in the soils for the plants to pull up. So, even if you were eating vegetables, they do not have the nutrition that was there when your parents or grandparents were your age, the ozone layer is being damaged and they've shown that plants now have more sugar in them and less nutrients, less chlorophyll, less protein.

So even if you're eating organic and even if you're eating grass fed beef, there are so many other obstacles too and you can't spend your entire day cooking and eating.

We have lives to live. So, it's overwhelming for most people to try to figure out a which dietary process to follow

because nutrition has become political.

But the bottom line is, our soils are air are so useless that we're getting calories and maybe fiber, but we're not getting nutrition. And then on the flip side, the toxicity level has just escalated.

And we're, you need something to not just do a detox once a year, you need to be detoxing daily. And again, I like the algae because it makes both of those things happen effortlessly. And I will add one more thing.

The unfortunate thing with the medical, traditional medical community is the, and it's their structure is set up to treat disease. Not, well, actually to treat symptoms of disease, they aren't dialing back to the cause of the symptoms. And the pharmaceutical industry has indoctrinated them and the public to believe that drugs are the answer and they're not, they simply are a band aid effect. And so people fortunately are starting to wake up that they need to take control of their health again, discover, you know how their body operates so that they can learn what to give it.

Just as you would need to learn how to run your cell phone. There are basics to learn about your body. And once you master the basics, it gets a lot easier and it gets a lot less frightening.

That's the other thing. I think people are absolutely terrified right now with the rates of cancer and heart disease and diabetes so. – Let's get a little bit into the details here. You, you've referred to mitochondria.

Can you explain what mitochondria are and then how do they get damaged? – Yeah. Well, I have a chance to talk about what algae is first or, or later whenever, as long as I get a chance to tell people what algae.

– Definitely. Yes. – Okay, because you know what they do for the mitochondria is remarkable. – Let's identify what they are first and how they get damaged before we talk about how they can get repaired.

– So you want me to stick with talking about mitochondria first or? Okay. Alright. So a lot of people know that mitochondria have been referred to as the power source of the cell.

They, what they do is they take all the food that you eat and they convert it into energy known as A T P. But the problem is uh well, recently they discovered that mitochondria do far more, especially the mitochondria D N A. You may be surprised to know that your mitochondria have their own D N A. You have your regular nuclear D N A.

There's 25,000 of those and the mitochondria D N A have only 37 D N A, but they're like air controllers, those 37 control everything that goes on with the regular D N A cellular communication and so preserving your mitochondria D N A is your number one goal because when they get damaged, just like an air controller at an airport, when an air controller goes down, planes crash, when your mitochondria D N A health goes down, your health crashes. It's that simple.

So with that in mind, I'm going to walk you through a bit of a science explanation here. So here is a, here's the cell and inside the cell, you have your nucleus and then you have these little peanut shaped things that are mitochondria.

Now take note that in cells that need the highest energy like your brain and your heart, they have the highest concentration of mitochondria, there are two million mitochondria Purcell in your brain. That's why they're realizing that Alzheimer's all these dizzy anxiety. Any kind of depression is a mitochondrial disease anyways. So, here's your mitochondria.

And inside the mitochondria is where the A T P is produced. But a byproduct of A T P production is free radicals and guess what your mitochondrial D N A are located. Exactly right beside where the A T P and the free radicals are. So, if you've ever sat near a fireplace or a bonfire and you got to close, you know, sparks would fly and get burned.

Mitochondria and Free Radical Damage

Well, your mitochondrial D N A R Getting burned every nanosecond because they are located exactly where the, the ATP production and the free radicals are unlike your regular DNA, which is way over I say in the cheap seats.

So they last a lifetime, your mitochondrial DNA last an average of 10-30 days. So it's just they're getting fried. So there's two ways to reduce the damage to your mitochondria.

Because you need to reduce the number of free radicals. So the highest amount of free radicals are generated by carbs and sugar, which of course is what everybody in our society is eating.

So you're number one strategy is to reduce, you're free, you're free radicals by changing your diet to either a Keto or low carb diet because there are fewer carbs, you're free radicals. Or algae and fasting.

This is intermittent fasting. Long term fasting. Both of these create virtually zero free radicals. You'll never get to zero because your body just through breathing.

And you know, body functions is always releasing some free radicals, but you can dramatically reduce the free radicals by changing your diet. The second way to get rid of free radicals is to remove them.

The first one was to reduce them. Now we're talking about removing them, but here's the problem and this is where algae is going to come in as your, as your superhero, not just a superfood but a superhero.

So your mitochondria um normally you would say, oh well, let's, you know, free radicals or I take antioxidants to get rid of free radicals. But here's the problem. Your mitochondria are the only cell in your body with two membranes. You're all yourselves, including mitochondria have what's called a lipid membrane around the outside.

These lipid membranes have, you know, they call porn's things that allow nutrients and antioxidants in and out to do whatever needs to be done. But the mitochondria, if you can see here in this illustration has a second membrane that has no porn's. So all of those traditional antioxidants like vitamin C, vitamin E and there's been lots of studies done showing that none of these antioxidants support longevity at all. And that's because they were studying the wrong antioxidants. I'm going to show you the right ones in a minute. So, so if you want to get rid of the anti ox, the free radicals, you can't do it with traditional antioxidants.

The only things that can get into this inner membrane are called endogenous antioxidants. There's three that your body makes and that's what endogenous is.

But there's actually 1/4 antioxidant and they are bluetooth ion melatonin and super oxide is meets. So the good news is those can get into that inner membrane and remove those free radicals. And the worst free radical is one called super oxide. It is the most damaging free radicals in your body. And super oxidizing taste neutralizes it and literally turns it into water. It's sort of like a fireman super oxide.

Disney puts out the fire of free radicals and so your body is saved. But here's the problem. I mean, that's the good news you got these and chlorophyll is the other nutrients that get in there to stop free radical damage.

So the good news is your body makes these three nutrients. You've heard of melatonin and I'm sure you've probably heard of glutathione. You may not have heard of super oxides.

Ironically, it's probably the most important one and there have been 50,000 studies documenting proving that it stops cancer. Alzheimer's heart disease and everything else.

Okay. Well, here's the bad news. Your body stops making super oxide, Disney taste, Bluetooth ion and Melatonin. After about the age of 30 you got lots of it when you're born and you got lots of it when your child and your teens and even into your twenties, once you hit 30 it's a downward spiral. And by the time you hit 40 or 50 and certainly 60 and 70 there are zero. Um super oxide Disney takes glutathione and melatonin being produced by your body. This is why older people have such a difficult time sleeping. Their body is not creating melatonin to help them. But Melatonin is also an antitoxin that stops the free radical damage.

Now, I when I discovered this and it's all you know, documented in science, I thought, well, you know, that's really odd, mother nature, universe, God, whatever you wanna call it that created us is so intelligent.

Why would it stop making these important endogenous antioxidants at age 30? Right? When we need them because by the time you get 30 you've been living for a while, you've got sentient cells accumulating, you've accumulated a lot of um toxins from just living.

And now you've got, this is exactly when chronic disease hits. This is exactly when cancer diabetes, Alzheimer's heart disease, all of these horrific illnesses that are hitting our society happened, right? When these three anti toxins pretty much stopped being made. So I went into the science thinking, well, this is really doesn't make sense to me. Well, now it does.

And here's why humans have been on the work on the earth for almost two million years, two million and up until just a few 1000 years ago, guess what?

We died, by the time we were 30 Mother nature has pre programmed these antioxidants to stop being generated because it never expected us to live past 30.

I tell people, our biology has not caught up with our destiny. So – I another way of explaining that and I totally agree with what you're saying. Another way of explaining it is that from an evolutionary perspective, we're designed to live through the age of reproduction and then a little bit beyond and then that's it.

Right. – So now thanks to science and 1000 other things we're seeing longevity, inching 80 90 100. But who wants to live to 100 if you're sick, if you have disease, if you spend all your money and your time between doctor's appointments, that's not living, that's barely surviving.

But I have good news. The great thing is, and I'll help explain a couple of things in a minute. Algae at least are algae has the highest concentration in the world of super oxide Disney melatonin and Bluetooth ion and also chlorophyll.

These the first three are the ones that your body used to make for you until you hit 30 and then suddenly you're great protect, disappeared. Well, it's reappeared for you and it's called algae and it's, but it can't just be any algae. And, and different nutrients like super oxidizing in higher quantities in the spirulina.

And Clara L A has the higher concentration of glutathione. But nonetheless, they both function very similarly, which is to get into that inner membrane of the mitochondria to protect it, to stop free radical damage.

And here's the other good news. It's time for some good news, right? Your body is constantly regenerating itself. So just because you have damaged mitochondria from lack of protection from these free radicals, doesn't mean they can't start growing back again.

And I make the analogy of uh to help people understand how the mitochondria work is. You know, think of your body as a building when a brand new building is built there, your building is like your body, it's fresh, it's brand new, got all sorts of support maintenance. People like these antioxidants and in the building are different offices, there could be a big accounting firm, there could be a consulting firm and each one of these offices do different things.

Well in your body, think of the offices like your cells because in your cells, they do different things, they cluster together just like offices do. So you have liver clustered and you have your heart clustered but nothing in the building can happen. Nothing without lights.

And the great news that when you're building is brand new, there's lots of maintenance people. So when the building, when the lights burn out, people who just come back and they replace the lights and in your body, those lights are your mitochondria.

The problem is as you're building or your body age, there are fewer and fewer lights, which means there's less

activity going on in your building and less and less.

And as the lights go out, there's less and less that can happen. And this is the analogy of a building falling into disrepair. But the good news is algae can turn those lights back on for you.

Algae can bring you back. We turn a few more lights on. You get a little bit more activity, more lights, more activity. So whatever has happened is not a death sentence, but you need to be aware of why it's happened and what the solution is. And because algae is so easy to take again, no injections, no prescriptions, no cooking, no cleaning.

It is effortless, effortless and scientifically proven and ours is safe and pure. Now, I want to back up a little bit because I mentioned that not all algae has all this good stuff in it. Why?

Because super oxide is Mutaz is an enzyme and enzymes are denatured and killed by high heat. And virtually every other algae company uses high heat to dry their algae because they are low priced, high volume. We've never been that way because I started the company just to help people be healthy. Once I've learned about, you know, helped my sister and then I thought I could help a few more people.

So we've never used high heat to dry our algae. So we, we are a higher price, but we're certainly higher quality physician grade. But all of our super oxide is Mattei's is alive and well, it's ready to go and turn on your lights and those other LG companies, they're shooting blanks. So that and the fact that, you know, there's other things we do, we grow in triple filtered Spring mountain water and blah, blah blah. But the other alternative I would tell you is you could get frozen spirulina because it also has not been exposed to heat.

Why Algae Can Reach the Mitochondria

We're actually in discussions with the Gerson Institute who have been traditionally using frozen spirulina for their patients, but it's hard to get its messy expires quickly, and hard to ship ship and travel with. So, because ours is raw and, you know, untreated, just like the frozen spirulina has all the same advantages. So – Let me interrupt. I have a question.

I wonder if you can explain some of the scientific research that demonstrates that these algae actually get into the mitochondria to do their, to do their work. – Yeah. Well, privy to that is I'm going to explain why there's a second membrane on mitochondria and on nothing else.

And which will lead me to why all these nutrients and algae can get into the mitochondria. And by the way, drugs can't get in there either, it's locked down. It's like the IC unit, nothing gets into that mitochondria except lu Tian melatonin super oxide Disney taste and in chlorophyll. And I know cattle A's is also very good for reducing inflammation, but the cattle A's can't get into mitochondria either.

It, so that's really interesting. So, okay. So Let's just a review again. There's that inner membrane on the mitochondria that is Impenetrable to virtually everything except before that I mentioned.

So you think to yourself? Well, that's really strange. You know, the rest of the entire all cells in our body have a permeable membrane. Why not mitochondria? Well, mitochondria does have that permeable one on the outside. So I'm not gonna flip back because I didn't quite tell you the genesis of algae. So before algae started growing and by the way, spirulina is a sino bacteria because I haven't had a chance to tell you what the different allergies are. But spirulina is a bacteria.

It is not a plant, it does not have a cellular wall, which is one of the great reasons why it gets absorbed so quickly and into your blood stream and directly to your mitochondria because there is, it literally bypasses digestion.

They've tried putting super oxide is mutates into tablets. It gets damaged in your stomach and never makes it to the mitochondria. But in spirulina, it does because it's, it's a bacteria and, and if you chew it, it's absolutely instant because you get into your bloodstream, sublingual ng. But anyways back to the history lesson.

So before spirit, before uh this um when earth started, there was just gas and water, there was no oxygen and no life. Nobody knows why a single cell and aerobic cell started growing. It was a sino bacteria like spirulina.

It started growing and it generated a teepee and in the process released oxygen. So after a billion years now, there's a lot of oxygen on earth. But now this little anaerobic cell is struggling because it did better in without oxygen. Now, larger cells that were aerobic started growing, but they didn't generate a T P as well. So I can imagine the conversation going something like this. The big sell says to the little cell, hey little guy, I see you're struggling over there with all that oxygen and we're not doing so well with generating a T P. So how about we join forces and you come and join us? We won't digest you.

We'll let you just coexist with us. We'll protect you from the oxygen and you create a teepee for us. And that's exactly what happened. So here's you start off with the cyanobacteria like spirulina all by itself, then it gets engulfed by the big sell, but it's not digested.

It just stays and coexists and that cyanobacteria became our mitochondria. It's all proven in a scientific theory called endo symbiotic theory. So now just to refresh back, why is there a second membrane.

It's the original membrane when it was all by itself as an anaerobic sell, it didn't disappear, it just got covered by the second membrane. But this is why nothing can get in there because this is evolution.

This is the original history of life. And our mitochondria are family with cyanobacteria is like like spirulina and later evolved into Clara Ella. So the reason why all these nutrients can get into the spirulina into the mitochondria is because there that was the original genesis that it's allowing itself to, to absorb itself. It's got to get out of jail card.

It's got a V I P pass because it is the same nutrition. So it's remarkable to me and it explains a lot to me why algae is the answer to just about everything. It's food it gives you, you know, if we still have time to talk about the different allergies, but spirulina is the most nourishing food in the world.

It gives you instant mental and physical energy, but it has this longer term benefit of providing metabolic energy at the cellular level and protection of your mitochondria.

So they can be not only saved from the oxidative stress from the free radical excess, but also can help regenerate them. So it's, it's pretty fascinating to me that, you know, we're, we have the shiny object phenomena where everyone is always looking for the next big thing to, you know, stave off aging and help protect.

And I'll tell you, I don't believe drugs are ever going to be the answer LG has been around for four billion years. And I think because it's misunderstood.

And no one's dug into the science and connected the dots like I have, I just happened to be fascinated by this. I'm really excited to be sharing this with people. So we know that super oxide Disney days, melatonin and glutathione can get into the mitochondria.

We know that the science proves that. And that's why so much. There are so many studies done on these things to protect the mitochondria. But until recently, I only did lab tests this summer, last summer to find out.

I was just curious, I wonder if there's Melatonin super activities in glutathione in our allergy. And I had the lab do the test twice because the numbers were so high. So it's so because these nutrients have already been proven through science to be beneficial to the mitochondria.

The missing piece was that nobody knew that there in algae in the highest quantity possible, at least in ours. Again, I can't speak for other companies because they use high heat and they kill some of those nutrients.

So it's exciting to me to do this and to share this with the world. – Well, that's brilliant. And it's, I'm glad you are explaining their unique qualities essentially to be able to penetrate the membranes of the mitochondria.

So that would explain why they are unique in that respect. – Yeah. – Mentioned different kinds of algae. Can you explain the differences? – Sure. Well, as I mentioned, I just want people again to see, you know, it's always good to have visuals.

This is a spirulina farm and this is a clear L A farm. So they grow in different types of farms. So spirulina grows this way and chloral puffs out. But again, it's not from the ocean like I'll back up a little bit. There's two main types of algae.

One is called macro algae. The other one is microalgae. Macro algae is called that way because it's very visible. It's also known as seaweed Dulce or kelp. It's that stringy stuff that washes up on shore.

The good thing about macro algae or seaweed is, it has a lot of fiber and iodine because it comes from the sea. It's seaweed, but that's the only place it is.

But that's not what we're talking about. The other type of algae is microalgae and it's called micro because it's microscopic in size. This is so small, almost a million cells could fit on the head of a pin.

This is why the nutrition gets so concentrated. Now, unlike macro algae, which is only in the sea. Microalgae is everywhere. It's in the sea, but it's also in the lakes, the oceans, the rivers, the streams, the soil, your swimming pool, your aquarium, it's everywhere. And there are tens of thousands of strains.

This is what feeds the, you know, the fish that feeds the um whales. But there's the blue green, green, red. The, the two that we're talking about are the two that are harvested as food crops. So there's thousands of other strains, most of which are toxic because they are and grown wild and algae will absorb whatever's in the water. So, so when we talk about spirulina and Carella as we are today, we're not talking about the wild Algaze that are out there that cause toxic blooms in your favorite beach. By the way, poor old algae gets a bum rap because those toxic blooms show up because there's been toxins in the water.

You couldn't see the toxins. They could have been chemical runoff, agricultural runoff, but algae kills bacteria. So it's the cleanup crew and it's, but it's more visible than the toxins. So it's actually there to clean up for you and it does the same thing in your body. So next time you're cursing some algae bloom, you really try to give it a little bit of a pat on the back for being the cleanup crew and all that sort of stuff. So we growers and freshwater, press it into a powder and then air dried into a powder without high heat and then press it into these little tablets that I showed you before and I didn't show you this, but I need you to understand there's so much concentration.

Imagine a million cells fitting on a head of a pin. That's why one tablet as the same nutrition as an entire plate of vegetables.

Types of Algae and Nutritional Benefits

So this is even separate from all that mitochondria protection that you're getting that will prevent chronic disease and inflammation and, and oxidative stress. It just nourishes you in a way that's so efficient and so fast and effortless and stops arguments with your kids.

It's literally, I think the future of fast food and just to show you how concentrated it is, we sell our algae and large bags of 1000 tablets. And I use the NASA quote to determine that one bag of 1000 tablets has the same nutrition as £551 of vegetables.

That's £551 of vegetables. You didn't have to carry home from the grocery store, clean cook, eat, throw out, argue with their kids throw out either when they didn't eat it or throw out when they went bad before you were able to cook it.

Because vegetables go bad very quickly. And as I said, our LG last at least three years and technically never goes bad. Algae is an interesting crop that way. So, so it's very efficient nutrition.

Now, if you were to take 10 tablets a day, um that bag would last 23 months, three months. That's three months of vegetables. – Are you saying that it can completely replace all of those vegetables?

– Well, it doesn't give you fiber. Like I'll be honest, spirulina because it's the bacteria has zero fiber. So spirulina is the blue green algae. It has and the blue, it has two pigments in the chlorophyll, which is the green one and also the blue one has some healing properties. But there is zero fiber in spirulina because it is a sino bacteria. So, but it has 40 vitamins and minerals and it has 64% protein. It's three times the amount of protein, three times the amount of protein. So animal proteins all bound up.

It could take days to get into your bloodstream. Collagen is bound up into smaller peptides that are faster. But algae is, we have 18 amino knows of the 20 including the nine your body can't make. So it's a complete protein.

This is one of the reasons why it's so efficient. And it gives you energy because the caminos get into your body so quickly and spirulina is loaded with B vitamins that convert the caminos into energy.

So, so it can be replaced your multivitamin, your co Q 10, your biotin, um probably definitely fish oil. There's lots of omega threes and other essential fatty acids and spirulina. So it's very good for replacing supplements, protein sports bars, sports drinks, um and because it's effortless.

It's really good for, you know, pets can use them as well. So that spirulina would be a, it's a blue green algae, by the way, that blue pigment is called fico sign in.

And it has some very important healing properties to including stopping the growth of blood vessels to tumors, is called anti angiogenesis. And it also sits on top of your A C E two receptor cell and stops the absorption of the COVID virus into your body, which is, you know, pretty, pretty powerful, little side note, you're describing so many health benefits.

– Just a clarification back with the mitochondria. I are you suggesting that it actually repairs damaged D N A within the, within the mitochondria? – Well, because it's prevents the mitochondria D N A from being damaged and allows new D N A to be formed.

That would be what um is facilitating a return to health. And I actually just found a really another interesting article about super oxide Disney tees that has been proven to um protect telomeres. And of course, the D N A unraveling happens when the telomeres shorten. Now, if you can protect and that's what leads to sentience, right? Is because now you've got because the cell D N A can only replicate itself correctly a certain number of times.

And if the telomeres are shortening and the D N A is unsmiling and the reproduction is done in, in in a way that's damaged, that's when you run into sentient cells.

But if super oxide Disney is like the ones like in spirulina can protect your telomeres, which is protecting the D N A for the reproduction. Now you're good to go. So I'm not the only way I would say potentially it could get rid of the sense in cells is because it, it allows your body allows your mitochondria, mitochondria D N A to all start working optimally. And when they're working optimally, then you get the natural Opto sis happening, you get the natural fusion and vision happening.

So, so it's not just, you know, zombie cells, there's other ways obviously to get rid of those cryotherapy is a, is a really good one. So, so I don't have, I haven't been able to make the direct link, but I have, you know, science that shows that it certainly supports the protection of the DNA by supporting the length of the telomeres.

– That's fascinating. – And I'll send you this articles. – You are a wealth of information on this subject, Catherine, I'm so happy we have had this conversation.

I know you had an offer, a special offer for those watching this program. – Yes. – Can you share with the audience what that is? – Yeah. Well, I've actually have to have written a 16 page. Don't be horrified by the length of it, but study that explains super Oxide Disney days in particular, why it in May in the spirulina helps protect your

mitochondria.

There's lots of visuals in there too. So um that is yours for free. If you email us at customercare@energybits.com, it's supporting your mitochondria health with super oxide disparities in spirulina.

Special Offer and Closing Remarks

So it's free report. Just email us at customercare@energybits.com – And we will have that email address in our show notes. So people don't memorize it, right? – Okay. And the better offer I think is a 20% discount off anything in our on our website. This the discount code is the word longevity and all you need to do is come to our website energybits.com.

We have just to recap. Spirulina is a blue green algae. We actually have two spirulina just so you know, there's a second one. I'm not trying to trick anybody, but I found that women weren't attracted to the packaging and I started the company because of my sister and also has more collagen and collagen powder.

So it does build your skin and hair. So we have to spirulina. We basically say we have a boy spirulina and the girls spirulina, whatever makes you happy. I just want to get this stuff into people.

So these are your spear, Lena's, these are the ones with the high super oxide days. I didn't have a chance really to talk about Floor L A which is a detoxing algae.

It helps you recover your health. And that algae is called Recovery Bits and it's a green algae, which is why it's in a green package. And then if you weren't interested in buying them separately, we have a blended algae called vitality bits. But they come in the large bags of 1000 tablets.

We also have them in really jazzy Canisters that come with a bag in them and you just, you know, open the thing and shake their little tablets out, but you get 20% off. Everything just come to energy bits.com and type in the word longevity into the coupon box and it works on everything all the time.

So we want to jump start your return to health or protect what you've got. It's never too early. I read recently that Alzheimer's symptoms. Alzheimer's begins 30 years before the symptoms even start showing up.

So whatever age you are, we live in a very toxic world right now with very poor food supply and everyone's busy and stressed. So LG is effortless, proven, scientifically proven Nutrient dense, endorsed by international agencies by NASA and the United Nations use safely in Asia for 75 years. It's your turn, it's your turn to enjoy these benefits too. So please come and visit us either.

You just learn more. We have a blog, there's lots of research you can learn about But I encourage you just if you could take five or 10 tablets a day.

It's a great start more is better, but give them to your kids, your pets, your grandparents. Honestly, we have to get people healthy again naturally and mother nature has given us everything we need.

We just need to pay attention to it. – Well, thank you so much, Catharine. This has been a very enjoyable hour and I appreciate you taking the time to be with us. Thank you.

– Thank you so much.