Introduction to the Lyme Summit Guest

Hi, and welcome to another episode of the healing Lyme summit. I'm your host, Dr. Myriah Hinchey, and today we have Catharine Arnston here with us. She is the founder and CEO of ENERGYbits And she's going to tell us about some of the amazing medicinal benefits of two super algaes spirulina and Chlorella.

So welcome. Catharine. please tell our listeners how you, became fascinated with these two superfoods and built a company around them. Yeah, well, thank you, Dr. Myriah.

yeah. Algae is, It's a very unusual, specialty. And I've been researching it now for 14 years. As I was mentioning earlier, I'm now just getting my PhD because of all the scientific research I've done on this.

And I tell people I didn't pick algae. You picked me. I'm actually Canadian. I've lived in Boston over 30 years, but I mentioned the Canada part because, 15 years ago, my younger sister in Canada, who I'm still very close to develop breast cancer, and she, I want to assure everybody she completely healed.

And we celebrate her, being cancer free every year. But as she was preparing for chemotherapy, her oncologist, which is a cancer specialist, recommended that she change her diet to an alkaline diet because it would help with her healing.

But they didn't tell her what it was or why, what specifically it did. So she called me or big sister who loves her. I said, I have no idea. I have an MBA.

I was doing international business, but I'm a good researcher. So I found out it was mostly an, a plant based diet because of the chlorophyl. And the phytonutrients have been proven to build your immune system.

Also, there were some pretty powerful science discovered back in the 40s by a scientist by the name of Dr.

Catharine Arnston's Algae Origin Story

Otto Warburg, who discovered that cancer, cannot exist in an alkaline environment. So to keep your cells slightly alkaline will help prevent recurrence or of of of cancer.

So I think this is why my sister's doctor wanted her to have an alkaline diet. So I did the research for her. She completely healed. And the process I learned about plant based diets, which led me to algae, which is a the most nutrient dense, chlorophyl.

Rich alkaline food in the world, endorsed by the United Nations. NASA, as the answer to world hunger, used safely in Asia every day for 60 years. The most scientifically studied food in the world.

There's almost 100,000 studies documenting some of the health benefits of algae. We're going to talk about today. And the. And the best thing about it is that it comes in little tiny tablets.

so if you don't like vegetables, you don't need to worry about, cooking or cleaning. The tablets come in. These little, algae comes these little tablets.

This is Chlorella, which we're going to talk about today. It's a green algae. This is spirulina, which is a blue green algae. See the difference in colors?

one tablet has the same nutrition as an entire plate of vegetables. And as you're going to learn today, one of the things to manage and help remove the inflammation from lyme and the pain from lyme ongoing is to eat anti

inflammatory foods.

And spirulina and chlorella are the two top anti-inflammatory foods, all proven in science. And the only problem with algae, it seemed, is that nobody outside of Asia knows about it or knows about the medicinal properties.

They know it's a superfood and they put it in their smoothie, because they know it's good for them. But nobody really knows what exactly it does. So I've spent 14 years discovering what exactly it does because there's lots of science, except no one's ever explained it to you.

and also, algae is not grown in North America, so why would you ever know about it? so I'm here to help you understand, why it is so important to everyone to be taking spirulina and chlorella, but particularly if you have Lyme disease.

And, I'm eager to get into that information for you. So that was my journey to discovering algae. And I'm almost inseparable from it now because it is so amazing.

And honestly, I couldn't live without it myself. Well, thank you so much for sharing that with us. so why don't you dive right in? So you hit the nail on the head.

So anyone that's heard me talk about treating Lyme disease knows that one of the most important things is managing that inflammatory cytokine cascade, because it helps the spirit to break down our connective tissue breakdown.

Our collagen, and release the nutrients that it needs to feed off of and live inside of our body. Plus, that inflammation causes most of our symptoms like pain.

So how do spirulina and chlorella help to deal with that inflammatory cytokines cascade? Sure. Well, and you hit it on the nail. Hit the nail on the head when you said inflammatory foods.

Because what I want people to understand first and foremost is that algae is not a supplement. It does come in these little tiny tablets that look like a supplement, but in fact, they are food.

We grow algae, first of all, was the first life on Earth. 4 billion, almost 4 billion years ago. And there's two types of algae. There's macroalgae, which is that stringy stuff in, that's in the ocean, also known as seaweed, which is good for you because of the fiber and the iodine.

That's not what we're talking about today. We're talking about microalgae, which is found everywhere. Yes, in the sea, the lakes, the rivers, the streams, the ocean.

But spirulina and Chlorella, which are two that we're talking about. Spirulina is a blue green algae. Chlorella is a green algae. They are harvested as food crops.

And I'm going to show you, our farms this. And they're grown in freshwater. So yes, there is a blue green algae in the ocean. It's not spirulina. Spirulina is grown in fresh water.

Ours is in triple filtered spring mountain water, which is important because algae will absorb whatever's in the water. So if there's toxins in the water, it'll be in your algae.

Never in our algae, because it's grown so carefully. And this is a Chlorella farm. You'll see the grown in different shapes, but also grown in triple filtered spring mountain water.

So a number one algae, spirulina and Chlorella are foods, not a supplement. And then after we grow it, we dry it into a powder without high heat. And this is very, very important because we're going to talk about a couple of antioxidants that protect you from all this inflammatory action from lyme or anything else.

And they are. If you use high heat to dry your algae, you deactivate these enzymes. One is called superoxide dismutase, which I know is a mouthful also known as SOD So we don't use. So our algae is raw.

It's a raw food because we don't use high heat. And then we press them into these little tablets that I showed you earlier that we call them bits, affectionately call them bits because they're bits of food and there's so much nutrition in each one of these tablets.

Using a quote we have from NASA, it says one gram of algae has the same nutrition as 1000g of fruits and vegetables, 1 to 1000. That's why each one of these little tablets has the same nutrition as almost a pound of vegetables.

So very, very concentrated. And as you know, as you learning from all of your practitioners, including Dr. Myriah, you get the most antioxidant and nutritional power from vegetables that are dark shaped, dark colored because of the pigments that are in there.

And that's why I also want you to know, when we, sell our algae and in in bags of a thousand tablets each bag has the same nutrition as 551 pounds of vegetables.

So if you're looking for a way to introduce these powerful antioxidants, high colored pigments, because the pigments in, spirulina, there's two, there's a blue one called Phycocyanin which is proven to kill cancer cells as well.

And the green one is chlorophyl. There's nothing in the world with more chlorophyl than algae. And it's a very has very high antioxidant capabilities.

And same with the blue pigment in, in spirulina. So their food, they're harvested in fresh water and hours are dried. So we preserve all the nutrition.

So there are raw food, and so this is really important because food, has all the other attributes and, and, nutrients in it that your body can recognize.

So they get absorbed better. this is why supplements have such high numbers on them, because they're usually made from extracts, often artificial to, and your body doesn't recognize them because they don't exist in nature, so they're poorly absorbed.

Why Spirulina and Chlorella Are Food, Not Supplements

you often get maybe 5 or 10% of the nutrients in a supplement actually absorbed. By the way, it's not what you eat, it's what you absorb that determines your nutritional, without the value of something.

So algae particular spirulina. And I'll go into the differences between the two of them because they behave differently in your body and will help you differently with, Lyme disease.

both of them are absorbed very effortlessly. You absorb 99% of their bioavailable because of the fact that they're food, that they aren't heated because also heat scrambles nutrition, it deactivates it.

So a lot of people are using powders, green powders, but they use high heat to make those. and so you lose some of the nutritional value, including some of the important ones that we're going to talk about today.

So, so that's the sort of the backdrop of what algae is. It's a food and there's different types of them. And they do different things in your body. So before we jump into, you know, to their actual actions and the difference between the two, just a logistical question.

So these tabs, these bits are meant to be swallowed like you would swallow any other encapsulated product or like, do you put them in smoothies or teas or do you need to chew them to, to activate them?

And like does does saliva have anything to do with starting digestion with these and enhancing absorption? Tell us a little bit more about logistics. Well there I to mine and I will admit most people do swallow the spirulina.

It's a very earthy flavor. And as you're going to find out, it has the highest protein in the world, which makes them really chewy. And they all stick to your teeth for a, you know, a minute or so or less than that.

But they're and they're also loaded with essential fatty acids. So spirulina, kids do love to chew them. By the way. These are there's no contraindications for any age group, newborns because the thing and I'll talk about this in a minute when we talk about the differences, spirulina is actually not even a plant.

It's a bacteria. It's called a sino bacteria. It has no cellulose wall, therefore no fiber. And it has no nucleus. So it gets absorbed very, very quickly, almost instantly if you chew it.

So if you I if you can enjoy the flavor, I encourage you to chew it because when you're chewing it, because it has so much chlorophyl and chlorophyl kills bacteria, it's killing bacteria in your mouth.

And this is a big issue for people. because whatever. If you have bacteria in your mouth, it's going to adjust. Every time you swallow that, bacteria gets swallowed into your body.

So if you're able to kill the bacteria, then you're going to be much better off. But I will say, like, my algae are sort of like my children. I don't have any children except these ones.

and I'm proud of what they do for you. But it the downside is it's an acquired taste. So no shame if you swallow the most people. Do we recommend at least ten spirulina tablets?

in per day. 30 if you're, taking them for medicinal purposes like you would if you had, lyme until you get a clean diet, clear diagnosis, and you could take them all at once.

You can take them throughout the day if you want them for energy or to satisfy hunger, we recommend taking them all at once. They're ketogenic, vegan, carnivore friendly because there's no lectins or oxalates.

They're low carb, low cal zero. This one zero fiber. Now the good news is Chlorella, which is the green algae. by the way, we call our, our spirulina, ENERGYbits.

We also have a second brand called, beauty bits, but that's our spirulina. We call it ENERGYbits. And I'll tell you in a minute it's very energizing to the at the, at the cellular level, the other algae, which is the green algae is Chlorella now.

And it's the one we're going to talk about is a wellness detoxing algae, which will be really important when we're killing that lyme and want to get rid of the dead mites, because if they stick, stay in your diet, in your body, they will become inflammatory themselves.

So the good news about Chlorella is it doesn't have as much, protein. So it's not as chewy and actually has very the highest chlorophyl in the world. And when you put a little sea salt on them, or my favorite is with pistachio nuts.

And my favorite flavor right now is salt and vinegar. Pistachio nuts. I think it's because I'm Canadian. We used to put vinegar on our French fries. Anyways, these taste delicious.

they're still green, but they don't have the same chewiness of the spirulina. We're going to be doing a trail mix, actually, hopefully next year of just the chlorella and pistachio nuts.

They also taste delicious with macadamia nuts. so that that trail mix, we're going to call Mac and bits and make it kind of fun. But, when you eat these with nuts or slices of strawberry, honestly, they are delicious.

and as you're going to find out, we also we recommend these before bed because your body goes through a detox

repair cycle while you're sleeping. So if you've had a workout, it will pull out lactic acid.

If you've been exposed to toxins throughout the day, as we all are, this will pull them out and this also as we'll talk about in a minute, helps you get into a deep sleep.

Because as high as tryptophan in the world. So yes, you can eat both of them. Chlorella the recovery that's most people enjoy. spirulina maybe not so much, but you could and you can also, crush them up and put them into a smoothie.

chlorella is great as a garnish on your salad because it has that little salty, and it's crunchy. honestly, chlorella is a godsend. And if you learn to enjoy eating them, you know, you're eating food.

I wouldn't, I wouldn't, ever swallow mine. I just love the flavor. And I eat them all day long. I do intermittent fasting. And so I take them all throughout the day because they do not interfere with your fast.

And then I have a, you know, a main meal either sometime between two and, and 6:00. So so it's really great for those purposes. So thank you for asking.

Yeah, yeah. That's wonderful. I was going to ask you about the intermittent fasting. I do it most days. I do it six days a week. And, I was going to ask if it would actually break your fast.

So. No, you're answering that. Although if you're doing a long term water fast like 3 or 4 days, you know, I'm a purist. I think that's probably what you should do and not introduce any foods because then you'll get better. Autophagy and apoptosis.

But for intermittent fasting, especially the spirulina, it cuts your hunger doesn't interfere with your fast, because there's zero carbs. and it gets absorbed so quickly because it's a bacteria.

So it literally almost bypasses digestion. It gets absorbed into your bloodstream so quickly, which allows it to be 99% bioavailable and, and get into your system to do what it needs to do.

So, chlorella is equally, great for fasting, but it won't satisfy your hunger. Like spirulina, only spirulina will satisfy your hunger. So. All right, so let's dive in and talk about chlorella.

So in my practice I use chlorella mostly. it is so helpful when you're dealing with the harvesting. So it's, a weak binder. And it also helps to, to. Sorry.

It's a weak binder. And it also helps to out cleanses the patient. And so three things that we have to worry about when we're saying are those LPs the little fragments of the bacteria that are stimulating the inflammatory cytokines cascade.

And then we have to worry about the acidity that often comes along with a herkes and then the actual inflammation. So for me, chlorella is going to bind the LPs.

And then it also is going to help to alkaline eyes. so we use a lot of chlorella. tell us more about chlorella, how you think it could be helpful in in treating.

I'm sure. And then we'll get to spirulina afterwards because, it's really helpful for the anti-inflammatory aspect. So, you couldn't ask. thank you for the great segue into Chlorella.

again, it's, one of my children that shines, as you as, you know, as you heard from my story, I got into this whole algae thing because my sister's oncologist wanted her to have an alkaline diet.

This alkalinity issue is very important. Yeah. When your cells are alkaline, that indicates there's proper oxygen, there's proper communication. It's a healthy cell.

But we have such acidic diets, whether they're processed foods or sugar or gluten. emotions cause, acidity, too much exercise causes acidity. And, Yeah, it's it's they call it this leads to the silent inflammation that goes on in your body.

How Chlorella Supports Detox and Alkalinity

So both algae are very alkaline, but chlorophyl is the most alkaline, pigment, and nutrient that you can find. And Chlorella has the highest, of, chlorophyl in the world.

It's called chlorella because of the chlorophyl. It has 500 times more chlorophyl than arugula and 25 times more than liquid chlorophyl. And so number one, as you mentioned, for the alkalinity purposes, you couldn't do better than chlorophyl.

It is extraordinary. I'm also going to show you something really interesting. Here's the chemical composition of chlorophyl, and here's the chemical composition of your hemoglobin, which is what carries oxygen in your blood.

They're virtually identical. And so not only is chlorophyl, very alkaline, it helps build your blood. And for decades, they use liquid chlorophyl for anyone when they had surgeries or they're injured because it builds their blood.

And when you have healthy blood, you're going to have a healthier mind, healthier body, healthier mitochondria. Just everything works better. So that's number one.

The chlorophyl very alkaline is very important when you're dealing with lyme or any, illness, cancer is is, acidic. the Covid virus was acidic. All of these diseases are acidic.

And so bringing in the alkalinity is very, very helpful. But it's really hard to get from our vegetables these days because our soils are so over crops that there's no minerals left in the soil for the plants to pull up.

And also the our vegetables are very often grown in distant lands now Mexico or Costa Rica. And so they're harvested before they're fully ripened. So all the enzymes and nutrients aren't even in the leaves or the berries.

And then they get shipped and they're stuck in warehouses. By the time they get to your plate. And you probably if you're cooking them, there's virtually no chlorophyl, no nutrients, lots of, sugar, and carbs.

And they've done studies on this, that the broccoli of today doesn't look at anything like the broccoli 50 years ago. And they and then they, turn they cross-breed the fruit to be sweeter.

So the apple of today doesn't have any resemblance to the apple of 50 years ago. So it's really hard to get the proper alkalinity. Yes. You can have alkaline water and there's your alkaline drops, but the best thing is to get it from your food.

And chlorella is probably the best way to get the, chlorophyl alkalinity. So that's number one. Number two, Chlorella has been studied to have all of the nutrients that your immune system needs.

and, and your immune system is, is in your gut. It's, 80% of it is in your gut. And your immune system, as you know, identifies invaders, kills them and pulls them out.

Well, Chlorella can help with that. It helps with the, immune building capabilities. And the most important thing about Chlorella is it has this hard cell wall.

Spirulina has no cellulose wall. Chlorella has the hardest cellulose wall. And why that's important is because that hard cell wall attaches to toxins.

Key leads to them and then and pulls them out much better than an activated charcoal. People, I do not recommend activated charcoal because it will pull out all minerals.

Chlorella will only pull out toxins, heavy metals, glyphosate, lyme, pesticides, lactic acid, alcohol. and he leads them. So it's a very gentle way to remove things like lyme and, because when they, as you mentioned, those, and I have a paper about those, those, protect the what are they called the, the bacteria that that they release the the, the LPs.

Yeah. They are like a polysaccharide. So they they hang around and, you've got to get rid of them because they're and they're, they're toxic. This is why people continue to have inflammatory response is because even though the lye may have been killed through a round of antibiotics, they have released these, LPL, or peat, so that they continue to stay in your system.

So the Chlorella will help pull them out. And while we're talking about sort of the, way to kill the lyme, we've I've got some science, and I'm sure you do as well.

that shows that, if you use medical grade stevia has been found to kill the the the mites. But then you need the chlorella to, pull the dead mites out, because if they stay hanging around there, they too, are inflammatory.

So whether you're using antibiotics to kill them, you need the chlorella to pull them out. And even after they're gone, because a lot of people, there's this long term, you know, effect where there's the inflammation just hangs around for 6 to 18 months.

That's those. I sorry, I can't remember the the, the poly peptide. Glenn LPs LP, LP. I'm gonna write that down. So the LPs are around and you've got to get rid of them.

That's what chlorella does. So it's a. Really to clarify for the listeners. So, so what you're saying and please correct me if I'm wrong, is that, basically like, even though the bacteria might be dead, it's the presence of the proteins from the bacteria.

You know, technically, you know, part of that is the LPs lipopolysaccharide that can still be like, an immune stimulant, right? Because it's foreign. It shouldn't be in our bodies.

And so it could be the thing that keeps the immune system stimulated and dysregulated and causes a lot of inflammation. So it's like even though, if, you know, if the bacteria were dead, you would still need to clean all of that debris and dead fragments of bacteria out of the body so that the immune system can calm down and therefore the inflammation can go away. Right.

Think of it like if you were doing a renovation, and you peeled off all the wallpaper and, and then you put on some beautiful new wallpaper and paint and so it looks beautiful.

That's sort of like what? Maybe the stevia would kill the bacteria, or the, antibiotics might kill the bacteria, but what if there was mold behind that wallpaper that you didn't know about?

And so even though your room looks beautiful, it can still be causing problems for you because there was something there that you weren't aware of and didn't get rid of.

Same thing with the the lyme you can kill the actual bacteria, but these LPs is which are they? The the fragments that peel off of the of the bacteria and they and they hang around sort of like mold spores do.

And so you've got to get rid of those to truly achieve a cleanliness body so that you're not having that inflammatory response. So if that helps in terms of an analogy, you may not you be cognizant of it, but they're there because they're part of what happens when you have this mold.

This might in your system. So so chlorella can when used either with the antibiotic or the lyme, can help get rid of them as they die. But even after they're dead, you still need to pull out these LPs because they're like mold spores.

They're still lingering and still causing, inflammatory response. Right. Okay. So now let's transition and talk about

spirulina so that you would say the primary action is to decrease the cytokines, the inflammatory cytokines, the inflammation. Yes.

because here's what happens. About 90% of all inflammation occurs in the mitochondria. Now you may not know what I might. The mitochondria are there. These they're called organelles.

And they're inside all of your cells. And they generate cellular energy. Cellular energy is used for everything. It's not just running to the grocery store or doing a great workout.

It's for your neurotransmitters, your heartbeat, germs, your, immune system, your, lymphatic system. It it fuels every activity in your body. Cellular energy is like having more money.

When you have more money, you can do more things and you have more choices. When you have more cellular energy, you can do more things and you can have more choices, including having more energy to fight any kind of inflammation or any kind of, invader that has caused your body to function poorly, particularly your mitochondria.

So spirulina has nutrients in it that aren't found in any other food, in the world that help support your mitochondria because they're the ones that are generating cellular energy.

And as you get older, you have fewer mitochondria, number one, and they generally get damaged. So they are dysfunctional and they are not able to generate cellular energy, which is called ATP.

And the best way I help people understand how powerful and important your mitochondria are, is, and why we're going to talk about how spirulina protects them.

Think of your body like a building. And in the building there are offices, and in the offices are light bulbs so that everybody can do the work in the office.

Well, when the light bulbs go out, the office building has maintenance people that come and return replace the light bulbs, and everybody's happy in your body, which is the building.

The offices are like, cells in your body. And the things that keep those, the, work in your cells going are the mitochondria. So think of the mitochondria as light bulbs.

The problem is as your, as your, as you age or you get exposed to diseases like lyme, those light bulbs get damaged and they go out. And so when you have fewer mitochondria, then you have less light for your body or for your cell to perform optimally to help you recover from whatever's going on, to help you think better, to help you remove toxins.

And so getting those light back, those lights back on, which is basically turning your mitochondria back on, is what spirulina does. And I'm going to show you how how it works so that, when in your cells, they're going to give you a bit of a little science lesson here in your cells, you, you have your nucleus, there's your cell and your nucleus, and then you have these little peanut shaped things that are called mitochondria.

Now, just to show you how important these little guys are, there's 2 million of them. Purcell, in your brain, your brain has the highest concentration of mitochondria because that's where because they mitochondria generate energy, and your brain uses the highest amount of energy of your entire body.

That's why there's so many of them inside your brain. Now, when you go inside the mitochondria, this is where cellular energy is created. It's also known as ATP.

But what people don't realize is a byproduct of ATP are free radicals. And what you probably also didn't know is that your mitochondria have their own DNA.

You have your regular DNA over here in the cell. There's 22,000 of them, and there's only 37 mitochondria DNA.

And they are located exactly where the ATP is produced, which is exactly where the free radicals are.

So your regular mitochondria DNA average lifespan is about ten days compared to your entire lifetime. Why? Because they're constantly being fried by the free radicals that are released during the process of cellular energy generation of the ATP.

So normally you would say, well, antioxidants will get rid of that. Well, yes, they do. But first I'm going to tell you there's there are two ways to protect those mitochondria.

One is to reduce the free radicals. And one is to remove them. So this is where food comes into play again, because the highest number of free radicals are generated by processed carbs, the white stuff, any kind of fast food, massive amount of free radicals, which is going to be constantly killing the fruit, your mitochondria so they can't help generate cellular energy to reduce your inflammation, to help you get better, to reduce that, you could get to a keto or a low carb diet because they generate fewer free radicals.

So now your mitochondria are happier. Even better is intermittent fasting or algae, which recreate virtually no free radicals.

How Spirulina Supports Mitochondria and Reduces Inflammation

So just by changing your diet, you will help take the, free radical load off of your mitochondria so they can start, you know, regrowing and being more powerful so they can send proper signals and reduce the inflammation.

So that's that's the first thing. Now back to the antioxidants. You say, well, you know antioxidants don't they. Stop free radicals. Yes they do. But here's the catch.

The mitochondria are the only cell in your body with two membranes. All of your cells have something called a lipid membrane, which allow any antioxidants and proteins back and forth.

They use something called organs. But your mitochondria have this inner membrane that is impenetrable by virtually any antioxidants except a few I'm going to tell you about in a minute.

Drugs can't get in there, and I'm going to tell you where that in membrane came from in a minute. But you could eat a room full of blueberries, not a drop of antioxidants will get into that inner membrane to stop that free radical damage.

So I have found that there are at least three. Actually there's four, but there's three for sure. And they are the highest concentration of these three are in algae and they're glutathione ion, superoxide dismutase and chlorophyl.

The most important one is something called superoxide dismutase, also known as Sod. There are 25,000 studies documenting how superoxide dismutase reduces inflammation and therefore helps prevent Alzheimer's heart disease.

Just about any chronic illness is related to too much inflammation. And this thing called superoxide. Disney Days, which is an antioxidant, has been proven to remove it to to reduce it.

The problem is you can't get it from food. And the good news is your body creates superoxide dismutase for you from the moment you're born. So it Mother nature knew what was going on in those mitochondria.

So she gave you superoxide dismutase. So you have it all through baby childhood teenagers. And then once you hit 30, your body start slows down the production of superoxide dismutase.

And by the time you're 40 or 50, you have virtually none. So now you're anti your mitochondria aren't protected like they used to be from free radical damage.

And and the way I describe superoxide dismutase is it's sort of like an umbrella that shields you from the rain of free radicals. I give you if you go out in a rainstorm and you got one of those big darn Ole umbrellas like a golf umbrella, you know you're laughing because, you know, you're protected.

You know, let it let it pour, you know, no, no, no, no, nothing going on for you. And that's what happens when your body's making superoxide dismutase.

You got this nice big fat umbrella, this protecting you. And then as you, by the time you get to 30, it's kind of like one of those city pop up umbrellas.

It's kind of smaller and, you know, it's protecting you a little bit, but not much. And then by the time you're 40 or 50, it's like one of those little cocktail umbrellas.

And by 50 you got none. So. So now the rain of free radicals hasn't slowed down, but your protection has been removed because spirulina has this superoxide dismutase which goes in there and basically turns the free radicals into harmless water.

It's like getting one of those golf umbrellas back. Now you are protected from the rain of free radicals. That hasn't stopped, but now it's not causing any damage because the free radicals are being converted into water and are no longer damaging.

Your might a conduit. So now your mitochondria can start generating more cellular energy. Now your body has the cellular energy. The electricity, the power it needs to reduce inflammation to help your your immune system fight whatever else is going on.

And, as I said, you can't get this superoxide dismutase from any other food in the world. It's only found in the highest concentration in spirulina. There's also a high amount in Chlorella, but the highest is in is in spirulina.

I call it sort of like having a fireman. and the reason why this is so important for you to know is that antioxidants are free. Radicals are basically a molecule with an unpaired electron.

So it's very unstable in nature, likes stability. And so what happens is that, unstable, molecule will grab an electron from another molecule, which is causes damage to that molecule.

And this is how tissue damage and inflammation occurs. It just keeps escalating. An antioxidant has extra molecule electrons that it can donate to the free radicals to neutralize it.

So it's not as damaging. Now, this, the reason why superoxide dismutase is so powerful is because the most damaging, free radical in your entire body is in your mitochondria, and it's called superoxide.

And I was curious about why this was known to be so damaging. And I looked up, found the science has said it has three unpaired electrons, as opposed to the average, free radical that has one.

So it's three times as damaging. And this is why it's super oxide dismutase. Dismutase means that dims that it, you know, reduces it is so important for you and for your health.

And yet you can't get it from any other food. And your body stops making it after, about the age of 40 or 50, you have virtually none. So this is why spirulina?

Because it can get into the air. The inner membrane, of the of the, mitochondria can help you restore your mitochondria, improve the cellular energy, which gives you the opportunity to do two things.

One, because there's fewer free radicals being produced, your inflammation goes down. And also because it generates more cellular energy in the something called the electron transport chain.

you get more cellular energy to help you fight whatever is going on in your body. Remember that analogy with money when you have more cellular energy, it's like having more money so you can get things done better, more efficiently.

And that's what more cellular energy gives you. now I want to explain to you why the mitochondria have that second inner membrane, then that and why algae is so perfectly suited to heal your mitochondria, which helps reduce inflammation so you have less pain as you're dealing with things like, Lyme disease.

I think I may have mentioned that algae was the first life on Earth. It was a sign of bacteria. This is all documented in science, by the way. It's called endosymbiotic theory.

So before it's, cyanobacteria started, Earth was just gas and water, no oxygen. This, somehow a single cell organism, an anaerobic cell, started growing and it grew for about a billion years, released oxygen.

So now aerobic cells could grow, but they didn't generate ATP as well as the anaerobic cell. So the big aerobic cell I can imagine saying to the little aerobic anaerobic cells saying, hey, I hear you.

I see you're struggling there, a little guy and all this oxygen on Earth, how about we join forces, we'll protect you from the oxygen and you can make ATP for us.

That's basically what happened. So the original site. Well, maybe not the conversation, but the original sign of bacteria, which I like. Spirulina, which is a sign of bacteria, got absorbed by the bigger guy but didn't get digested.

They co-existed and that cyanobacteria became your mitochondria. It's all proven in in science. PubMed. Any history about the mitochondria? Talk about this.

So this is why there's a second inner membrane. That original membrane when it was the never disappeared when it got absorbed by the bigger membrane. Bigger cell. The bigger cell, simply put a, a lipid membrane around it.

But that's why it's impenetrable to drugs. Most antioxidants, except everything that's in the algae, because their family isn't that cool. That's awesome.

So Mother Nature, I mean, she came up with algae. We just. We're, I can't take any credit for spirulina or chlorella, but what I can take credit for, as I mentioned earlier, is that we are known for growing it the most, carefully drying it so carefully, without high heat to preserve all those nutrients.

By the way, and I forgot to mention that superoxide dismutase is not only an antioxidant, it's an enzyme. And high heat kills all enzymes. So when you're buying lower priced spirulina or Chlorella, you are not getting the benefit of that superoxide dismutase because it's been deactivated.

this is one of the reasons why, there's healing centers like the Hippocrates Center. It's been around for 50 years in Florida or the Gershon Institute, which is another healing center operates out of Mexico.

they have been always giving their patients who come to them with like, third stage three and four cancer live spirulina because it has active superoxide dismutase in it, among other things, including the pi cosine.

And but after the patient leaves, it's hard to get live spirulina. So they're hoping to work with us because we're one of the few or maybe the only company I know that has raw spirulina, which means all of the nutrients are still activated, in there so they can go to work to help you, heal.

So it's it's pretty cool. And so to be clear. So with yours, it's not live, but it's raw because it's not gone through any heating process whatsoever.

Correct. So after you harvest it, is it, is it like dehydrated with or is it freeze dried. Like how. Air dried. So we air into a powder and then we just press them into the tablets.

And actually I am going to I going to back up actually spirulina is a live food because we don't do anything to it. It would grow. again, although it's, you know, it's a complicated crop to grow.

So you probably couldn't, you know, probably unlikely be successful growing it. Chlorella is a raw food, but it's not live because, chlorella, the heart cell wall attaches to toxins and pulls them out like the mites and all the LPs. But, in order to get the nutrition that's also in the chlorella, because it still has 60% protein and 40 vitamins and minerals, the Chlorella has to be cracked at production.

The original technique was to tumble it with glass beads. That was that's what almost everybody uses. The trouble is, the glass heats up, so anytime you have heat, you deteriorate the nutritional value.

And also, lead from the glass leaks into the chlorella. So when I started the company and I heard about that as well, there's got to be another way. And there was there's this is what we use there.

it's patent pending. There's a, vibrational chamber that we use, and we pass the chlorella through the chamber, and it's the vibrations that crack it.

Not. He's not glass. No physical. the hitting of the chlorella. It's quite unique. and so it preserves the nutrition and certainly, make sure that it's, but because we have to alter the chlorella with that process, it is no longer a live food.

It's still a raw food. So, Yes, smart. A modest distinction, but, and we won't dwell on it. But, there's another really powerful antioxidants in the spirulina.

It's the blue pigment. which is called psycho cosine. And, it's an also an antioxidant that is not found in any other food in the world. I want to I want to show you how to spell it.

It's, by cosine and and, that also can get into the inner membrane of the, of the mitochondria. But, focusing and claim to fame is that it, kills cancer cells and it's also, it's already being used in the, in cancer treatments.

And I know we're talking about Lyme disease, but it's just important to know that, you know, it's been used. Here's a paper they died the cancer cells purple.

And then after 24 hours there was virtually no cancer cells left. That was from fight cosine. And so it does amazing things in your body. in healthy cell, it will speed up the production of that ATP.

which again gives you sell your energy. So just as a nutshell, spirulina with these particular antioxidants, that can get into the mitochondria, are very helpful for combating Lyme and helping you heal from inflammation because it's it protects and improves mitochondria function using nutrients and antioxidants that are unique and not found in any other food, or even in other algae.

If it's been a lower price to algae. So because it improves the mitochondria and protects them, it's reducing the free radicals which reduce the inflammation, which reduces the pain and gives you more cellular energy so that your body can heal.

And then chlorella, because of the high chlorophyl, which, both of them help restore alkalinity. But this is even better. this is very much a detoxing algae and cleansing algae and wellness algae, which is why we call it recovery bits.

it helps you recover. So it attaches to either the mites as they get killed from either the anti the antibiotics or a stevia protocol. And then it also attaches to the LPs which linger even though the the mites have been killed.

The they linger because they are inflammatory and they because the algae Chlorella detects it as a toxin. It will remove those to reduce the inflammatory and pain effect.

So they work quite differently from one another. but they work beautifully together to support your journey, to

restore your health. Yeah. That's great. I'm just looking. I was taking some notes.

I've actually. I've learned a lot. And you're covering a lot of my treatment bases and goals with these two. definitely. With it being a weak binder and binding toxins, not nutrients.

this is the Chlorella, as well as alkaline icing and then with the spirulina acting as an antioxidant, increasing energy, increasing mitochondrial function, decreasing inflammation.

This is great. So I am going to I have never used spirulina before with my patients, but I think it's something that I'm going to bring in. Yeah. Oh, and I didn't mention, you know, the other reason we call it ENERGYbits is it does give you energy.

and when you are, fighting any kind of, health issue, your immune system and your, your cellular energy is being directed to whatever is causing that problem.

And so you have less cellular energy. You just you're fatigued, you have brain fog is the way I describe it is, you know, cellular energy is like magic.

You're having a dinner party. And at the end of the day of, you know, ten people, maybe you only had one cupcake to share with ten people. Nobody's going to be happy about with their dessert choice.

So but if you had ten cupcakes so everybody got their own cupcake, everybody's happy. Cellular energy is the same way. If you don't have enough cellular energy, nothing in your body functions well, nothing.

And so there's there's always this. It's like having kids. Everybody wants the last, that last cookie they're fighting over that little bit of cellular energy.

So it goes to where the biggest need is. And if you're trying to combat an illness, that's where it goes, but doesn't leave you much energy for thinking or for movement.

Using Both Algae for Energy, Recovery, and Dosing

So spirulina, because it increases cellular energy, it's like giving you those ten cupcakes so everybody gets whatever they need. Everything works better.

And but it's not a stimulant. It's generating, energy at the cellular level. Stimulants are like caffeine or chemicals or sugar. It's like putting a stimulus, like putting paper on a fire.

You get a burst and then you get a crash. Spirulina is like putting a log on the fire very steady. There's no no drama with a spirulina or with algae.

It's I call it steady, Eddy. You just feel better. You feel fresh, you feel awake. Like you just had a great night's sleep. And you'll feel like that every time. It's just.

You'll notice it when you stop taking it, because you'll be dragging and your brain will be functioning. And, I honestly, I couldn't live. I don't know how.

I don't know how I would have lived without these two algae. I have been taking them every single day for the last 14 years. and, you know, I do eat real food, but these these keep me young and active and mentally.

Physically. and again, you get ten spirulina in the morning or it's throughout the day for energy. ten chlorella for wellness, but for detox, for the chlorella, you're going to need 20 or 30.

Generally, we suggest at night because that's when your body goes through a detox repair cycle. But you're going to need that 20 or 30. And they taste pretty good for chewing with sea salt or nuts or fruit if you want spirulina,

same thing ten a day, but for therapeutic dose would be closer to 30.

And they don't taste as good as, you know, their friend over here. Chlorella. But, you can chew them if you like them, but you don't have to, and you can add them to smoothies too.

So the two are really amazing. there is no upper limit we fuel, you know, this is our stuff is used by Olympic athletes, NHL players, the NHL players.

They take 75 spirulina before a game because they like what they want. Lots of mental focus. They want short, fast spurts on the ice. And then they take 75 chlorella after a game to pull out the lactic acid because it's detected as a toxin, so their muscles aren't as sore after the game.

So I just tell you that not suggest you have to have 75, but you could if you wanted. because it's food, remember, not a supplement. They're called bits because they're bits of food.

Right. So how many how many milligrams are in each little bit. Yes. it's, 7.5. grams. so and and again, no heat, no nothing added, nothing subtracted, just grown very carefully to preserve the nutrients.

so it's point. It's 250mg per tablet if you want. At the end, it's all on the packaging. as I said, we sell them in these large bags. We also sell them in these really cool canisters.

They come with a bag inside, and then you, open the bag, put the tablets in there to continue to take them out of the little, the opening so that you have to put your hand in the bag.

By the way, while I've got this one here, I'll mention to you we have two spirulina. I refer to my my brands as my children because I'm so I think they're so I think so highly of them.

And I introduced these as my twins. because there's, they're both spirulina and I'm not trying to trick anybody. But what happened is when I started the company, it was because of my sister, recovering from breast cancer.

So women's health has always been important to me. But I noticed that women just weren't buying the spirulina. So my girlfriend said, well, you got to make it pink and give it a cute name.

And because it has more collagen than collagen powder. So it's really good for your skin and for your hair. I made a second brand and called a Beauty Bits, but they are absolutely identical.

This is what I have on my countertop too, so you know, it makes me happy. I design everything, by the way. so, I just want women to feel comfortable. They come in little pouches, too, that, you can put it in your handbag.

And this brand, Vitality Bits, is a blend of the two, algae, spirulina and chlorella. I try to get people to buy them separately because they do different things in your body, as you've heard.

So if you're really focusing on the detox piece, that would be the recovery bits, the coral. if you really want to, increase your energy and reduce the inflammation.

And that would be the spirulina. but if you want, you know, don't want to think about, you know, you want to think about, period. Just get the, the, the vitality bits, which is a blend of the two algae, simplifies things for you.

Right. Well, thank you so much for sharing all of this with us. Is there anything else that you would like our listeners to, to know before we wrap up our interview?

Yeah, well, a couple things. first of all, we have a 20% discount code for your community. the code is heal Lyme. All. One word. No space between the two of them.

It works on all the products, not subscriptions, but it does work on all the other products. And as I mentioned, each

bag has the equivalent nutrition of 551 pounds of vegetables.

And normally a bag is $130. But with your discount code it's about 104. And if you took ten tablets a day, I just want to help you understand how this works out financially.

That works out to a dollar a day, a dollar a day to get your energy back, your focus, protect your mitochondria. It'll help reduce inflammation, help you recover with you, from Lyme.

But it will do so much more for a dollar a day. And there's so much nutrition in here. 40 vitamins and minerals, 64% protein that it can replace many of your other supplements.

You can get rid of a fish oil, a multivitamin, a CoQ10, probably some of your minerals. So very, cost effective as well as very, efficient in terms of the nutritional value.

So, and then of course, the chlorella, same thing. ten tablets a day would cost you a dollar a day, but again, you'll need closer to 30 for, for pulling out the toxins.

and I guess the last, the only last thing I would like to help you understand. So come to. Oh, come to our website. It tell you where to get them. our website is energybits.com n e r g y bytes.

ENERGYbits.com. And if you're not ready to, you know, dive in and buy a full bag or a canister. Like I said, the canisters come with little bags inside them.

You can go to Amazon and buy a $6 pouch. They have 30 tablets in them. Try it out, see if you like them, and then come back to the website. We're not here to push the product.

I want you to understand what it does and how it works. So a $6 investment is very nominal. If you get Prime shipping, that's terrific. And we also write a blog.

So even just come to the website ENERGYbits.com to learn about, all of our every month we write a blog with lots of science references. and on that note, we're all science based.

I'm very big on education. I'm also the chief scientific officer. we do third party lab tests here in the United States. at an FDA approved lab. We only sell through doctor's offices as well as your own website.

We're not sold through chain stores because it's such it's medical grade food. And so, you know, I just want you to know that it's very, very high quality.

and that's, and we get, lots of medical endorsements for that reason. And that final thing I've been trying to tell you is that, algae isn't new. It's just new to you.

And, you don't know about it because it's not grown here. We have corn and wheat and tomato patches, strawberry fields, but we don't have algae farms.

And in Asia, they've been growing in there for 60 years. You can't drive your bicycle to school or to to work without going by an algae farm. 99% of algae is grown in Asia, and 99% of it is consumed there.

So you just haven't seen it here, and nobody's told you about it until I did. But think about it ten, 15 years ago, you didn't know about chia or matcha or bone broth or collagen powder.

And these are all things that have been used for centuries in other countries by indigenous peoples. Same with algae. It's been used since the Egyptians and the Aztecs.

So I don't want you to think, oh, this is a fad. It's not a fad. It was the first life on Earth, almost 4 billion years ago. And it's still here. It's been used for centuries in other countries.

It's been used safely daily in Asia. It's just not been explained to you or have or its medicinal properties. explained. It's way more than a superfood.

I call it a super duper food, but, it's and again, it's food, not a supplement. So. So check it out. Come visit us at ENERGYbits just to learn more. it's going to change the world.

It's it's really exciting. but I want you to understand how it will help you with your lyme, diagnosis and get you back to perfect health. Thank you so much.

And thank you. Everyone at home.

Where to Buy ENERGYbits and Final Q&A

One second. I am so sorry. I am getting over a bad cold. Oh, dear. Oh, I knew that was going to happen. Oh, I was wondering if we get an algae tablet stuck in your throat.

And I know you have. Right. Oh, dear. Oh, well. Oh, well, give me some chlorella for sure. Well, we'll ship you a whole bunch of stuff. I have a seven year old.

This whole classroom is sick. Give me one. Oh. Oh, I'm so sorry. That's okay. That's what editing is for. Yeah, they just cut it out. Well, exactly. Yeah, yeah.

Well, now that I know you have a seven year old, you need to get them taking the spirulina. Chlorella Oh, I will. And for children. Not even kidding. Yeah, yeah.

For children, we recommend, half a tablet for their age. So if they're seven, give them three a day or four a day of, Oh, yeah. And he's really. He's really good about taking a supplements, too.

Yeah, yeah, we've had moms, at the end of the school year, the teachers would come up to them and say, you know, what are you what are you doing with your kids?

They were the only ones who didn't have colds because, as you know, when one child gets it, the entire school gets it, and then the moms get it, it just it just circles around.

So the chlorella will, I'm never sick. nobody can believe it, but I eat so much chlorella. And same with, athletic teams. They travel together in planes and busses, and they often bunk together.

And so not only does the Chlorella help them recover from their sport, it keeps them healthy so that the team doesn't get sick. So, That's really. Yeah. That's great.

Yeah. No. I'm so excited to get, Your team had reached out and asked for my address so they could send me some. Oh, sweet. Okay, they haven't gotten it yet, but honestly, I would be placing an order right now if I if it weren't on its way.

So. Well. And you may want to have a wholesale account, you know, because, Oh my gosh. Yeah. Let me, let me end our interview and then. Yeah, I want to talk to you about a couple of things.

So hopefully I'm not great read anymore. Oh my gosh. All right. Give me a stack. Oh wow. All right. Thank you so much for joining us. And thank you everyone at home for listening.

I hope that this information was helpful and is aiding you in your journey of healing Lyme. We'll see you next time. Bye bye.