

## Recover With Algae: A Heart Health Must

Joel Kahn, MD, FACC  
with Catharine Arnston



### Joel Kahn, MD, FACC

Hello, everybody. Welcome back. Another summit interview for Reversing Heart Disease Naturally 2.0. This is good. Pay attention. Take notes. You don't want to have any distractions. You probably want to watch this a few different times. We have a superstar. We did not cover this topic last year. This is a long-time friend and knowledgeable health expert, Catharine Arnston, coming to us from Boston. She's going to tell us about nutrition and micronutrients, getting healthy, and doing it in a way that doesn't involve pharmaceuticals. Thank you for being with us today, Catharine.

### Catharine Arnston

Thank you, Dr. Kahn. We've been friends for a long time, so I'm so honored to be at your summit.

### Joel Kahn, MD, FACC

I love the backdrop we have now because these are all the things that are in my house, in my office, and all over the place, and everything I'm going to talk to you about is authentic because I've been gobbling down your product for about a decade now. As soon as I found out about it, it enhanced my health, and I knew everybody was listening, and this is just from my heart that I was listening. It's going to help, too. Tell us, why are you the world's expert in terms of talking about algae as a food and the specific types, chlorella and spirulina, and how you got interested in it? I need to know.

### Catharine Arnston

It's a funny story. The company is called ENERGYbits, E.N.E.R.G.Y.B.I.T.S. dot com. If anyone, while you're listening to this if you want to check us out. We do sell spirulina and chlorella algae, as Dr. Kahn pointed out. Algae, you think how does somebody become an algae expert? I've been at this for 15 years, and I tell people I didn't choose algae. It chose me. I do live in Boston, but I'm Canadian. 15 years ago, my younger sister had breast cancer. She's fine now, but her oncologist told her to change her diet to an alkaline diet as she was preparing for chemotherapy. But they didn't tell her what it was or why it was good for her. My baby sister called me, who loves her, and I just happened to be a good researcher. It turned out that an alkaline diet was a plant-based

diet because of the chlorophyll and the phytonutrients that build your immune system. As you're going to hear more about today, they also protect your heart. They do protect your brain. They do all sorts of great things.

I helped her. She did heal completely. I learned about plant-based nutrition 15 years ago, got on the plant-based train because I left my corporate career, went back to school, studied nutrition, and taught plant-based nutrition for about a year at hospitals and corporations. I'm sure a lot of you feel this way—that it's hard work getting vegetables into your diet. A lot of people gave me pushback, saying that the vegetables were too heavy to carry home from the grocery store. They took a long time to clean, cook, and eat. They went bad quickly. Husbands and children wouldn't eat them. I decided I would try to find a way to get plant-based nutrition to people in an effortless way. Ultimately, I discovered algae, which is the most effortless way to get plant-based nutrition because the algae, spirulina, and chlorella we sell them as tiny little tablets. They're about the size of a baby aspirin. This blue-dark one is spirulina. This is blue-green algae. The lighter one is chlorella, which is a green algae.

Not only are they effortless because one tablet will equal the same nutrition as an entire plate of vegetables, This is based on a quote that we have from NASA, that says one gram of algae has the same nutrition as a thousand grams of fruits and vegetables, so it is a thousand times more nutrient-dense than anything else. That's stunning. It's not only that, but it's science-based. There are 100,000 studies documenting all of the health benefits, including the ones we're going to talk about today from Spirulina and Chlorella. It's on a solid scientific foundation, and it's been used in Asia daily for 60 years. They use it for longevity, for health, for nourishment, for their skin, and beauty. It's endorsed by the United Nations as the answer to world hunger because it has the highest concentration of protein in the world, three times the amount of protein as steak. 13 years ago, I decided I would help people understand algae. I would grow it very carefully because, unfortunately, most of the algae on the market comes from China.

They don't grow it as carefully as we do. They use high heat to dry it, which kills some of the critical enzymes. We're going to talk about a couple, one that Dr. Kahn knows for sure very carefully is superoxide dismutase, which has been proven to help stop heart disease, articular sclerosis, and all sorts of things. It's not in the other algae because it's an enzyme, and everybody else except us uses high heat to dry their algae, and that high heat kills that superoxide dismutase. I got into this just to help my sister, and then I thought I could help some more people. Lo and behold, 15 years later, here I am, and I am an algae nutrition expert. I was on 275 podcasts in the last couple of years. I'm pursuing a Ph.D. on this. So I'm just getting started.

### Joel Kahn, MD, FACC

So just to back up, we don't spend a lot of time, as I remember from previous interviews. I just use the word alkaline diet: alkaline. We had a baseball player in Detroit. Alkaline, he's very famous, but I think we spend more time talking about an alkaline diet. We're talking about acid and base and pH that are slightly above 7.4 alkaline and pH that are slightly below some point

more acidic. Then to go on, plants promote alkalization. There's a word that's even harder to say at the moment. You were looking forward, and this is such a concentrated source of plant-based phytonutrients that it will alkalize the body to use chlorella and spirulina.

### **Catharine Arnston**

Yes. There was a German scientist by the name of Otto Warburg who won a Nobel Prize back in the thirties for discovering that cancer cannot exist in an alkaline environment. Your cells need to be just slightly alkaline. 7.1 This and all diseases are acidic. And when you have slightly alkaline cells, that's indicative that there's sufficient oxygen and that the cell membrane is working properly; nutrients can get in and toxins can get out. Once you start getting too acidic, this changes the balance of minerals and makes it difficult for toxins to be removed, and it changes the metabolic health of your mitochondria. It's a slide downhill. The key to health is maintaining a pH of 7.1 in the cells. By the way, your blood needs to be even more alkaline, 7.34. If you do not eat a very specific diet, what it does is it pulls minerals, magnesium, calcium, and potassium out of your bones, out of your cells, out of your organs, and automatically neutralizes the acidity in your blood because otherwise, you would die. If it happens over and over again, it depresses your immune system. This is why my sister's oncologist wanted her to have an alkaline diet, because she wanted her to have the strongest immune system, both to maintain the alkalinity of the blood in the cell. But also, when you have an alkaline environment, the cells are working better, preventing cancer. Algae is the most alkaline food in the world. A large part of that comes from chlorophyll, which, by the way, has chemical structures identical to hemoglobin.

### **Joel Kahn, MD, FACC**

We've established that this is the most concentrated source of protein. We've talked about the most alkaline foods. Which are you on its own? Amazing. We haven't mentioned minerals, vitamins, and nutrients. I know you've got some data about how packed these algae are, so share that with us a bit.

### **Catharine Arnston**

If it's okay, I just want to help people understand what algae is. It was the first life on earth 4 billion years ago, and we only showed up a few million years ago. It predates us by a long shot, and it's still here. It must be doing something right. You may only think of algae as those algae blooms that close your favorite bit. I want to assure you that that's not the algae we're talking about. Yes, there is algae in the ocean and the rivers, and you're probably in an aquarium or swimming pool. But there are tens of thousands of strains of algae. The two that we're talking about today, Spirulina and Chlorella, are not found in the ocean. They are harvested on freshwater farms. Here is a spirulina farm, and this is a chlorella farm. This must be for a couple of reasons. The algae that we're talking about, Spirulina and Chlorella are very concentrated they are growing very carefully because the water is freshwater, not from the ocean. The ocean is full of toxins, and we don't want toxic algae because it will absorb whatever is in the water. When the algae shows up in one of those blooms, it's only there because there are already toxins and bacteria there. Algae is the cleanup crew. It gets the blame because it's visible, but it's the

cleanup crew in your body, too. It will pull out toxins. It will help get rid of bacteria. A. it's not from the ocean, although there are algae in the ocean, and B. it's carefully grown. Then we grow it, then you dry it into a powder, and then we press them into little tablets that we call.

## Joel Kahn, MD, FACC

Why don't we use glass beads to break the chlorella open? Because I know we need to have Chlorella open to be functional. Why don't we just use glass beads and break them?

## Catharine Arnston

Spirulina and chlorella, as I mentioned, are quite different. Spirulina is technically a bacteria that does not have a cellulose wall. The reason why that's important is that it gets absorbed so quickly into your body. After all, there's nothing for your body to break down, and you get access to all 18 of the 20 amino acids, including the nine your body can't make, but chlorella is different. It has the hardest cell wall in the plant kingdom, and for your body to get access to the nutrients that are in there, it has to be cracked. The FDA has regulated that all chlorella sold in North America must be what's called a crack cell wall. But the way that it's cracked differs depending on the company.

Almost all other algae companies use the original technique, which is to tumble it with glass beads. But the glass heats up, and the heat from the glass leaks into the chlorella. Chlorella is known for being a detoxifying algae. It pulls out all the heavy metals, pesticides, molds, glyphosate, and aluminum. But so when you tumble it with glass beads and lead is leaking into it, this thing. That's not very intelligent, is it? When I started the company, I didn't want to lead in our chlorella. We found a new technique, which is what we use. We passed the chlorella through a sound chamber, which means the vibrations crack the chlorella so there's no lead and it can pull out toxins. But I think before I go any further on the two algae, I do want to emphasize the difference between the two of them because they do completely different things in your body, and you need both of them. That's why, if you understand what they do and what they are, you'll maybe be able to apply them to your situation. Would that be a good segue way?

## Joel Kahn, MD, FACC

Tell us how to apply them to our situation.

## Catharine Arnston

Spirulina is and we cause ENERGYbits because it's very energizing for your mind and your body. You may say to yourself, how does that happen? It happens in a couple of ways. You get energy in the moment, but you also get it long-term. The way you get it at the moment is because, as I mentioned, it does not have a cellular wall. It gets absorbed into your bloodstream instantly. All those rich aminos, they're individual aminos that get converted to glucose by the high amounts of B vitamins, and they're also loaded with a set of fatty acids that help your brain. It's loaded with iron that carries oxygen. So you understand the importance of these individual amino acids in animal proteins that are all bound up. It could take two to three days for your body to release

it, as the amino acids in collagen powder are peptides and get absorbed quickly. But algae are all individual aminos, so you get the energy from the aminos instantly because they can be used by your body very quickly. In the long term, what happens with the spirulina algae is that it has nutrients in it that protect your mitochondria.

As you learn more about your mitochondria, you're going to find out that they determine everything about your health. Good or bad. But the problem is that your mitochondria get damaged by free radicals, and these free radicals are produced in the process of making ATP, which is what is called cellular energy. The good news is that spirulina contains all of these critical nutrients, including the one enzyme I mentioned, superoxide dismutase, which is an antioxidant, and it gets into the inner membrane of the mitochondria and stops free radical damage. Free radical damage. The most damaging one is called superoxide, which has three unpaired electrons. It is three times as damaging as your regular free radical, and superoxide dismutase neutralizes that antioxidant, so your mitochondria are saved. It's like having the fireman in there too. Putting out the fire. spirulina and also chlorella have the highest concentration of this superoxide dismutase in the world.

You can't get it from any other food. Your body stops making it for you after the age of 30, all the other algae companies use high heat to dry their algae, which deactivates the superoxide dismutase. This is why our algae work so well. What's one of the most important things that superoxide dismutase does? It prevents heart disease. Heart disease is one of the main killers in our society, and it hits people predominantly after the age of 40. Why is it that your body isn't making superoxide dismutase any longer to protect your mitochondria from free radical damage? This is like having the fireman and the fire crew show up at your house and hose down all of those free radicals to protect you, your mitochondria, and your heart. There are also a lot of essential fatty acids that are essential for your heart health. It also protects you from other heart damage. But the main thing you need to know is that spirulina has these high concentrations of amino acids that give you energy in the moment and also long-term ATP, which is cellular energy so that your cellular energy can protect you from whatever issue is going on in your health.

The way I describe it is, imagine thinking of your cell, your energy because you don't have enough of it. Most people don't because they have damaged mitochondria. It's like having one pie, and a thousand people want a slice of that pie, but nobody's going to be happy with whatever slice they get because it's going to be so tiny. One pie for a thousand people. When you increase your cellular energy, your ATP, by using spirulina to protect your mitochondria, suddenly you have more ATP and more energy. like having a thousand pies. Now everybody gets a nice big helping of pie: your brain, your heart, your immune system, your gut, your lymphatic system, and your heart. Everybody gets what they need. When you have more cellular energy, that means your heart can function better. Your brain can function better, and everything works better. So that's what spirulina does: it protects your mitochondria from damage, and that protects your heart.



**Joel Kahn, MD, FACC**

I'm just going to say goodbye to some of the audience because they are so full of education, information, and excitement. I'm excited, but I just want to make it.

**Catharine Arnston**

Something bigger before they go. I want to share. We have a 20% discount code for you.

**Joel Kahn, MD, FACC**

Go.

**Catharine Arnston**

Go to our Web site, [energybits.com](https://energybits.com). The code is HEARTDOC. HEARTDOC, all one-word. HEARTDOC, and you'll get 20% off anything at [energybits.com](https://energybits.com) if we sell them in bags, canisters, and sample packs, do not deprive yourself of this natural nutrient, this fabulous food provided to us by Mother Nature. Just so you know, when you use that discount code and buy a large bag of a thousand tablets, it works out to be ten tablets a day. That's what we recommend as a starting point. It works out to a dollar a day—a dollar a day—to protect you, your heart, and your brain from disease. You can turn it around if you already have it. A dollar a day is all it takes. Don't delay. Give your body and your mitochondria what they need to perform optimally for you. I promise you won't be disappointed.

**Joel Kahn, MD, FACC**

Thank you. I just want to make the point I'm very familiar with chlorella, spirulina, and ENERGYbits. But some of the listeners, I just want to go back to when you held up those tablets. A lot of people listening are plant-based or vegan, and they're eating spinach, kale, bokchoy, arugula, salads, beans, and peas. You can add this on. You will see the benefit of adding this on. You will improve your nutrition even more. You'll be getting vitamins and minerals and nutrients and superoxide dismutase and omega-3. I just want to share before we go to our short break that my 91-year-old mother takes a handful of ENERGYbits chlorella before bed, and it has been the single most effective sleep aid that she has found. There are so many uses, and that's why I include them. Even though I would call my diet nearly textbook perfect, I still wouldn't go a day without taking my supplemental ENERGYbits Spirulina and Chlorella Thank you, Catharine. Don't go anywhere. For those of you who have been listening, Thank you. You've got a head full of stuff, and there's more information on [energybits.com](https://energybits.com). For those of you who have bought the premium package, stay tuned. We're going to go a little deeper on that topic with Catharine before we say goodbye. Thank you. Okay, Catharine, thank you for sticking with us. Let's go a little deeper. We didn't get to omega-3 minerals and vitamins. I think you briefly said, if I heard it, 18 of the 20 amino acids.

### Catharine Arnston

Yes, 18 of the 20, including the nine, your body makes, so it's a complete protein. Both of the algae and I do want to help people understand chlorella as well. Both do have high protein, and they're both ketogenic. They're vegan, they're raw. This is very important. They're raw. This is in the raw because we do not use high heat to dry them. We preserve all the nutrients. You get everything that your body needs, because you may not know this, but when you use high heat to dry any supplements or any food, it kills the enzymes. So you're missing a lot of the critical nutrients if you use the high heat that most companies do. But we do not. But yes, there's a lot of power. All the electrolytes that you need are in both the algae, but, as I said, they do different things in your body.

### Joel Kahn, MD, FACC

Wonderful. Tell us a little bit about third-party testing and why people should be. I'll give you an example. The very famous podcaster, and author Michael Gregor, M.D., does podcasts to educate people to be concerned about spirulina and a toxin, I'm not recalling the name right now, but I'm sure it is. Tell us about your third-party testing.

### Catharine Arnston

You need to be careful, and I don't think anybody else does third-party testing here in the United States, including any of the other algae companies. But we do because we've been selling through doctors' offices like Dr. Kahn's for seven or eight years as naturopaths, homeopaths, and physicians. So they need to know for sure and without a doubt that there are no toxins, no metals, and no pesticides in our algae because they are recommending it to their patients. We've always done third-party lab testing here in the United States. We get tests from the company that grows them for us in Taiwan, but we do our own set, and it's not just the nutrition or the metals. We also test for mycotoxins. Mycotoxins are very hard to detect. It took me two years to find a lab to test for it. Mycotoxins are in all natural bodies of water, so, oceans and lakes, and you can't keep them out of the algae. We don't have them in ours because we grow ours in triple-filtered spring mountain water. then, as I mentioned, we test for them. There aren't any mycotoxins that are very damaging to your brain and your cells. The symptoms manifest as fatigue, brain fog, gut issues—the list is endless. But because you don't have any, and in ours, you're safe. Our algae tablets are so safe that you can give them to your newborns, your pets, and your grandparents, as you do to Dr. Kahn or your parents. They're safe for everybody. Spirulina is the one that is for nourishment, for your mitochondrial health, and particularly for brain and heart health.

Why is that? Because your brain has the highest concentration of mitochondria in your entire body, Women's eggs are the next highest, and your heart is the third highest. When you have mitochondria that aren't functioning properly, you need to find a way to get them back on track because if you can't protect them, they will die or mutate. When they're dead or mutated, they send the wrong signals, and they cause you to have less ATP. When you have less ATP, you and all of your body parts cannot function properly. Your heart cannot beat properly, and your

lymphatic system cannot work properly. Because spirulina has the antioxidants that protect your heart. This is very much heart food and brain food, but it's different from chlorella, which we call our RECOVERYbits. That's why we call it RECOVERYbits because it helps you recover from your health. It pulls out toxins, lead, mercury, radiation, aluminum, pesticides, glyphosate, and mold, and it eliminates them. Spirulina is cleansing, but not detoxing. Chlorella is a detoxing algae, and it has the highest chlorophyll in the world, which is very cleansing to your blood, as we mentioned earlier, and also to your cell walls.

Your cell walls need to be healthy with fat, like healthy fats like omega-3, and in this case, chlorophyll, because it's a fat-based pigment. But chlorella also, as you mentioned, has the highest tryptophan in the world. Tryptophan is the precursor to melatonin. So what it does is help you get into a deep sleep. It won't make you sleepy, but it will help you sleep. What is so important about sleep? It's when your body goes through a detox and repair cycle. While you're sleeping, that's when the cells in your heart, your brain, or your entire body are being repaired. You're getting autophagy, getting rid of all the cells that shouldn't be working, and chlorella will pull all of those out. It's like having a cleanup crew while you're sleeping. You're getting your beauty rest. Chlorella is pulling out all the junk in your trunk, and it has a very important nutrient called vitamin K2. Everyone is deficient in vitamin K2. Chlorella has your daily requirements. What does vitamin K2 do? It pulls out excess calcium from soft tissue, like your skin, your brain, and yes, your heart.

It moves into your bones because if you have too much calcium, for example, in your blood vessels, it calcifies this as an indication of arterial sclerosis, or hardening of the arteries. What is hardening? Very often, it's calcium. You don't want excess calcium in your blood vessels. This is why K2 is so important for some in the spirulina, but mostly in the chlorella. It will move all that excess calcium into your bones, out of your brain, and out of your organs, and into your bones where it's safe. This is why it's such a cleansing, healing algae. It also has the highest glutathione in the world, which is also very detoxifying, and that is very important to all the processes in your body. I came up with a fine analogy to help people understand the two different algae because spirulina is so nourishing and gives you everything that you need. Most people take it in the morning when they're hungry and tired because they want to get out for the day. It occurred to me that, like room service at a hotel, you get everything you need for the day.

You get fed, you get nourished, you get energized—you're at the door. then Chlorella, because it pulls out all the junk in your trunk and cleans up everything in your body. It's like housekeeping at a hotel. Think of spirulina, which we call ENERGYbits like room service, and chlorella, which we call RECOVERYbits, it's like housekeeping. The two of them work completely differently, but together, to make sure that you, your body, and your heart are functioning optimally, they are being protected. If you have a health condition, you can unwind it. Because, as Dr. Kahn, I'm sure, tells all his patients, our bodies are constantly regenerating themselves. We have over 30 trillion cells every day; 30 trillion die and 30 trillion new ones grow. Let algae help you grow back healthy cells so that you can have a firmer structure here to bring back your health. If you have a health



condition, you want to take more than ten tablets of each algae. If you're healthy, ten spirulina in the morning or throughout the day are great. If you have a health condition, you want to take probably 30 or more Chlorella at night to maintain your wellness. But if you want to detox, you need the 30 tablets.

## Joel Kahn, MD, FACC

We have so much to contemplate. Again, a lot of the audience is healthy, and a lot of the audience has heart disease. As we talked about, even if you're healthy, you're plant-based. We certainly have heart disease and other chronic conditions. You just ran through so many exciting concepts about superoxide dismutase: antioxidants, high glutathione, antioxidants, high protein, and high complete amino acids. A lot of us eat anatto beans to get vitamin K and K2, and they're sticky, fairly unpalatable choices. But we can get used to them. This is so easy. You can chew the chlorella tablets. They have a nice little green flavor, but your teeth will be a little green after, so you can just swallow them down. What other? Just the tryptophan. You take chlorella before bed, and you get a natural conversion of melatonin and a deeper, more restful sleep. Everybody needs that. Now we know that protein is such a common topic. You do not need animal protein. You can get plant proteins, and you can build muscle. You just have to lose weight. But here we have what it should be: the perfect boost in the gym. You're doing a weight and strength routine with bands and barbells. You can just take a handful of these wonderful items. I think you have made this summit so practical for so many people. Repeat, you did mention in the beginning that you have a special offer for people.

## Catharine Arnston

Yes, if you're listening, we have a 20% discount code. The code is HEARTDOC. HEARTDOC, all one word, and just come to energybits.com. You'll find that when you get to the checkout, you'll find a little coupon box. You can just put the HEARTDOC code in there, and you'll get 20% off. Now I don't want people to have sticker shock because a large bag of a thousand tablets is normally 130. But with your discount code, it brings it down to about \$100. If you are taking ten tablets a day, that works out to a dollar a day. It's very efficient nutrition. I also want to let you know that algae isn't new. It may just be new to you. It's a multibillion-dollar agricultural crop in Asia, where they've been taking it every day for 60 years. The Japanese are one of the blue zones, and they eat algae every single day. Why should they be the only ones enjoying the longevity benefits, the health benefits, and the skin benefits?

Everybody should be taking this every single day. but you want to get the highest quality because you'll miss out on some of the critical nutrients that protect your heart, your brain, and everything else in your body. If you use the lower-priced algae that uses high heat, you could get frozen spirulina. That's the only other thing I can recommend. Other than our spirulina, which is raw it would not have been exposed to high heat again. You'll get all the glutathione, and superoxide dismutase that you need to protect yourself. The key to remember is that our bodies have made so many of these antioxidants for us since the moment we're born. But the trouble is, once you hit 30, it stops. So this is exactly when chronic disease kicks in—when we're about 40.

You're protected for about a year. Then this is when you don't have those antioxidants any longer and you can't get things like superoxide dismutase from food. You may take the spirulina because you want to get a better workout, and you'll get a better workout, but you'll end up protecting your heart. Or maybe you'll take the chlorella because you want the vitamin K2 to again protect your heart. But maybe you'll end up with better sleep and a better detox. By the way, it also helps with bowel movements. You can't go wrong with either one of them. They work very beautifully together, and they're a gift to us from Mother Nature. We just grow it and dry it to preserve the nutrients so that you get maximum value, safety, and purity. Come and check us out at [energybits.com](https://energybits.com). Algae is a gift that keeps on giving.

**Joel Kahn, MD, FACC**

Thank you for your passion, and your knowledge, and for sharing them with us. We'll say thank you for Reversing Heart Disease Naturally Summit 2.0, and I'm sure you're going to be so popular. We're going to have to have you back next year.

**Catharine Arnston**

That'd be terrific. Thank you, Dr. Kahn.

**Joel Kahn, MD, FACC**

Bye-bye.

