



Transcript: #514 Taking Spirulina and Chlorella for Detox, Anti-Aging, and More Energy  
with Catharine Arnston

**Dr. Wendy Myers:** Hello everyone. I'm Dr. Wendy Myers. Welcome to the Myers Detox Podcast. In today's show, we're going to be talking to Catherine Arnon, and she's the founder of energy bits.com, she's an expert in spirulina and chlorella and all the many benefits including anti-aging, longevity, detoxification, and definitely improvement in your energy output and many, many, many other benefits that we're going to talk about today on the show. And we talk about how chlorella detoxes you, what it detoxes exactly, and why after Fukushima in Japan, chlorella sold out around the world because it's so effective at absorbing radiation. I think there are a lot of issues with nuclear fallout and nuclear testing that's gone on with nuclear waste seeping into our environment, and a lot of different exposures to radiation that people need to be aware of and take precautions about. And taking chlorella. It's a great way to do that.

Also, we talk about the issue of people not eating enough vegetables, and even if they do, they are not getting the nutrition that they need. And one tablet of spirulina or chlorella has enough, I think it's like a pound of vegetables, it has a nutrition of one pound of vegetables. It's really, really powerful stuff, and it has a lot of collagen in it, a lot of things for beauty, skin, hair, nails, bones, and anti-aging minerals that you need. Just so many benefits we're going to talk about on the show today. And you guys listening, I know you're really concerned about your body's load of toxins, your toxic body burden, and are interested in reducing that toxic body burden. So I created a quiz that you can take @heavymetalsquiz.com. It only takes a couple of seconds. You're basically taking a lifestyle quiz, looking at some of your toxic exposures presently and in the past.

And then afterward you get your results and you get a free video series answering a lot of your frequently asked questions about detoxification. I'm really excited to announce I have a new docuseries coming out called Heavy, and I have 100 speakers, the world's top experts on detoxification and how heavy metals and environmental toxins promote so many different health issues like obesity, diabetes, hormone dysregulation, like whether

sex, stress and thyroid hormones. We talk about mitochondrial health, chronic fatigue, and we talk about brain health, dementia, things like that, digestion, anti-aging, and how toxins really throw a wrench and promote all of these different health issues. So stay tuned for that. That's coming out next year around Valentine's Day, 2024. And Catherine is one of the speakers at that event as well. So our guest today, Catherine Arnst, is an expert in allergy nutrition, a wellness thought leader, and an experienced entrepreneur and sought-after speaker.

She has an MBA BA and is a board-certified health coach. Catherine has spent the last 10 years researching algae, writing papers, giving presentations, lecturing at conferences, and speaking on over 150 plus podcasts to explain the benefits of algae. And to do this, she's read thousands of scientific papers that detail, validate, and confirm ALGAE's nutrition, health, longevity, and global benefits. Remarkably, none of these findings are known by consumers, and it's Catherine's vision and passion to change this. Her scientific fluency allows her to explain algae with such simplicity and clarity that it quickly becomes obvious why algae is something that we all urgently need. And Catherine's passion for algae is contagious, inspiring, and thought-provoking. Her efforts have led to algae being better understood by educators, consumers, doctors, and wellness practitioners, and even the United Nations and NASA endorse algae as the world's most nutrient-dense food. And the answer to world hunger, even Catherine's extensive knowledge and playful personality is both entertaining and educating in her speaking style leaving audiences informed, uplifted, and hopeful. You can learn more about Catherine and her algae, her spirit, and chlorella at [energybits.com](https://energybits.com). Catherine, thanks so much for joining the show.

**Catharine Arnston:** Well, thank you, Dr. Wendy for having me. It's so great to see you again.

**Dr. Wendy Myers:** Yeah, so I love talking to you. You've been on the show before and I just love what you're doing and the message that you're trying to get out to people about the importance of spirulina and chlorella for so many different reasons, longevity, anti-aging, improving nutritional status, detoxification. There are so many, many facets and benefits to taking your products. Essentially, you created some of the best spirulina and chlorella out there. Why don't you tell us a little bit about your history and how you got into this realm and produced Sperling and Chlorella?

**Catharine Arnston:** Yeah, because kind of an unusual specialty, and I tell people I didn't choose algae. It chose me in the company's energy bits.com if anyone's curious. So I live in Boston, Massachusetts, and I've been here for 33 years, but I'm actually Canadian. And I mentioned that because my family's all still in Canada. I did all my education in Canada and I had a corporate career with my MBA. And then 15 years ago, my younger sister, who I'm very close to up in Canada, developed breast cancer. I wanted to assure everyone that, first of all, she completely healed, which is the best news ever. But as she was preparing for her chemotherapy, her oncologist, who is a cancer specialist, told her she needed to change her diet to an alkaline diet for healing purposes. Now, we're grateful that her oncologist told her that, but she didn't tell her what it was or why it was good for her.

So my baby sister called me and I knew nothing about it, but I love her. And it turns out I'm a good researcher. So I dug in and found out an alkaline diet was a plant-based diet because of the chlorophyll and the phytonutrients, which are very healing. We'll talk about chlorophyll later on today, and the cleansing benefits and also the detox benefits of chlorella, which is the highest chlorophyll in the world. Anyway, I did some research. She changed her diet, she went through chemo, and she completely healed. I learned about plant-based nutrition and was stunned by the science about it. I gave up my corporate career, went back to school, studied nutrition, and taught plant-based nutrition for a year. Found out it was too hard for most people to eat vegetables or they gave them gas or they threw most of it out. So I thought, man, I have to find a way to get this nutrition, vegetable nutrition into people without any work, because that was the big problem.

It was too much work to eat them, clean them, carry them home, throw them out, blah, blah, blah. So back, I went to all the research I found for my sister, and when I got to algae, that's when the miracle really happened because it turns out algae is the most alkaline food in the world. We have a quote from NASA that says it's got a thousand times more nutrition than any other vegetable. So it's the most concentrated type of nutrition in the world. It's been endorsed by the United Nations as the answer to world hunger because it's the highest protein in the world. It's documented in almost a hundred thousand studies. So it's got really highly concentrated scientific backing, and it's been used safely every day in Asia where they have been taking it daily for over 60 years. Algae, by the way, is a food crop.

It is not a supplement. So the only problem with algae it seemed, was that nobody in America knew about it or knew exactly what it did, and the quality was poor, mostly from China. But the best thing about algae, and this is what we sell, is that it comes in little tablets like this chlorella, which is the lighter green, and this is spirulina, which is a blue-green algae. We'll talk about those two algae in a minute. But because they're in these little tablets and each tablet is so concentrated with nutrition, each tablet, which is the size of a baby aspirin, has the same amount of nutrients as an entire plate of vegetables. But here's the killer kicker. You didn't have to drag those vegetables home. You didn't clean them, cook them, eat them, have gas indigestion, or argue with your kids or your husbands.

So it's effortless nutrition. This is the future of fast food because if you can swallow water, you can get in seconds, all the nutrients you need for nourishing your body, your brain, and your cells, and pulling out toxins, which I definitely want to get into because those toxins are messing with your mitochondria. They're interfering with your cellular communication. They're causing the elastin in your skin to be damaged, which leads to wrinkles. It causes your digestion to be less than optimal, which can also lead to autoimmune. It's unbelievable what's happening inside, and we don't even know it. Algae are your superior and chlorella are your superheroes to get you back your super strength so that you can live more optimally, and slow aging. It may even reverse aging. I'm kind of an example of that. So yes, I'm very, very excited about algae. I'm very excited to share it with people. And as you'll learn, algae isn't like growing broccoli. It's more like wine. It's very, there's some certain subtleties in the production process that determine

the efficacy, and that's why we're known and regarded so highly because we preserve all the nutrients and we make it safe for you. So we'll go into what to look for when you need to buy algae.

**Dr. Wendy Myers:** And that's why I love personally taking spirulina nuts and chlorella. And I take it every single day. I have my little bits right here, and I love it that it's in pill form because a lot of sterling and I have tried in the past or chlorella is in a powder form, and that's really inconvenient. You have to put it in a smoothie. And then your yummy berry smoothie is like this bright neon green, and it's not very appetizing. I mean, let's just be honest. And then also, even if you're very motivated to eat vegetables like me, it's still challenging getting them all in. And I think because vegetables today are not nearly as nutrient-dense as they used to be, you have to eat so much more of them in order to get your nutrient needs met.

**Catharine Arnston:** Yeah. Well, you've raised about a whole litany of ideas that we can unpack. The first one is, well, I'll address the most recent one. The scientists are calling this era. We're in the great nutrient collapse because the vegetables or anything that you eat now have about a 50th of the nutrients that your grandparents had. And it's partly because we've over-cropped the soil so there's no minerals left in the soil for the plants to pull up. So even if you are eating organic, you're not getting the nutrients that you need to live optimally. Also, the ozone layer has become damaged, and they've been testifying that plants have more carbs and sugar now and fewer nutrients and proteins. So that's the number one huge gap in nutrition. Number two is this toxicity, which I know is your specialty. I read a paper recently that said the average American has 700 toxins in their body, and this comes from glyphosate, pesticides, smoke, and inhalation, it just stuff fumes from your clothing, and stuff from your makeup.

Unfortunately, all these toxins individually may not be terribly damaging, but when you layer them on year after year, your immune system becomes so loaded that it stops performing optimally. And as you're going to find out, chlorella, algae is fantastic for being a chelator detoxer of these toxins. As we'll get into a little bit more, spirulina is the algae that we recommend for nourishment, for replacing all those key micro and macronutrients that you aren't getting on a daily basis. And they're also, as you mentioned, so convenient. I didn't do powders. You can grind them up if you want, but I found that the powders were messy. You can't travel with them. Anybody who's traveled with powder and found the Ziploc baggie opened or the lid open, 's a mess, right? You've got green powder everywhere. So with these little tiny tablets, they're very portable. They actually have a three-year expiry date, so you can keep 'em for a very long period of time.

They're great if you're stuck in the car or in between meals or catching a flight, or you get to your hotel room and you don't want to eat those sugary carb snacks that are all over the place. So it's really your SOS food. I also call it your health insurance, not just your nutritional insurance, because we're going to talk about some of the benefits that it offers today, but they're fast, easy, and safe for all ages, from newborns to pets to grandparents. We generally recommend 10 tablets of spirulina each day for nourishment

and 10 of chlorella to help build your immune system. You could have less or you could have more because it's food.

**Dr. Wendy Myers:** You can overdo it, you can take it on an empty stomach as you count on a lot of synthetic vitamins that make you upset. It gives you an upset stomach. And I think I love taking this stuff not only to increase my nutrient status but also to curb my cravings. Because one of the main causes of cravings is simply mineral deficiency, nutrient deficiency. Your body is going to call you to eat and eat and eat, even if you just ate a whole meal if it's not getting its nutritional requirements met. And so for me, that is one of the main reasons I take it. So let's talk about the nutrient profile and content of spirulina just to start with.

**Catharine Arnston:** Sure. Well, spirulina is called a blue-green algae because it has two pigments in it. It's a blue pigment and a green pigment. The green one you probably know quite well, it's chlorophyll, and that's what makes plants green. The blue pigment in spirulina is called phycocyanin, and that's a mouthful. It doesn't exist anywhere else in nature, and it's an antioxidant. It has some very important properties that stop free radicals and is able to do that at the mitochondrial level. And when we talk about stopping free radicals, that means it's protecting your mitochondria at the core level, and they're the ones that generate energy for you. They generate ATP. So anything that's going to protect or improve your ATP is helpful for anti-aging. And the way I describe it to people is thinking of ATP as money. When you have more money, you can do more things and you have more choices.

When you have more ATP cellular energy, the same thing, you can have more choices and you can do more things. So spirulina has this particular blue pigment that improves your cellular energy, but it's big claim to fame is its high concentration of protein. Now, this is not just typical protein, these are individual amino acids because when you eat animal protein, they're all bound up and your body can't absorb 'em that way. It has to break down into individual amino before it can be absorbed. And I'm showing you a chart here. Here are the bound-up animal protein peptides that you find in collagen. They're smaller clusters, so they get absorbed quickly. But algae is individual amino, so that allows it to get into your body very quickly. By the way, spirulina is a bacteria. It does not have a cellulose wall. So again, it gets absorbed very quickly.

It has 18 of the 20 aminos, including the nine your body can't make. And this, as you get older, this need for protein increases even more because you need to maintain the protein levels to maintain your muscle density because lack of muscle density causes frailty. It slows down your metabolism, and it causes your mitochondria to die off. So protein is really important, but it's hard to get that amount of protein. And 30 tablets of spirulina only give you five grams of protein. You think, well, that's not enough, but it's actually five grams of amino. And because of animal protein, you can have 50 grams of animal protein, but you may end up only absorbing 10% of it on average because you don't have all the factors to break it all down. So 50 grams of animal protein easily on average, becomes only five grams of aminos, which is exactly what you get from 30 tablets of the spirulina.

If you take the 30 tablets, you get five grams of protein, but you get five grams of amino because it's 99% bioavailable. So spirulina has these high concentrations of protein and 40 vitamins and minerals, all of the electrolytes that you need. I was talking to somebody yesterday about bone health, and your bone health is based on protein. There it is again, and minerals. People think that your bone strength is based on calcium, and actually high calcium makes your bones brittle. Your bones are where the highest calcium is stored, but it's protein and minerals that make them strong and flexible. And women have smaller bones in general. So we're more susceptible to osteoporosis because if you eat an acidic diet, and I think this is why my sister's oncologist wanted to have an alkaline diet if you eat an acidic diet too regularly or highly stressed, which causes acidity in your blood, your body will extract minerals from your bones and your organs and other cells to neutralize that acidity because your blood needs to be at 7.34, which is just more slightly alkaline on that range of zero to 14. Zero is acidic, and 14 is very alkaline. I got it backward anyway. 7.34 is right in the middle. And so if you're too acidic, you keep losing these minerals that cause osteoporosis, which weakens your immune system. Algae has all the minerals, and it's the most alkaline food in the world, particularly the spirulina. So it's really great for nourishing your body, nourishing your blood, protecting your muscles and your mitochondria. So it's really a very nourishing, energizing algae.

**Dr. Wendy Myers:** Yes, and I also love that the algae has superoxide dismutase in it, which is really key for detoxification and also helps improve the functioning of your mitochondria and your energy production. And we don't make SOD, it's also called SOD for short. We don't make that internally. We have to get that from our diet. And there's not a lot of food where we get that SOD. So I think that's really, really critical for many, many reasons for detoxification and anti-aging as well because these metals and toxins are very aging, very oxidative on our body.

**Catharine Arnston:** Thank you for mentioning that. That is the most important antioxidant found in spirulina. There's some in chlorella, but spirulina has the highest in the world, and that's super oxid de mutase, which is the long word to say SOD. It's actually made by your body from the moment you're born, but by the time you hit 30 and certainly by 40, your body is not creating it anymore. And the key thing that SOD does is that it stops the free radical damage of your mitochondria when your mitochondria are creating all this great cellular energy for you. What people don't tell you is that a byproduct is free radicals, and those free radicals damage or kill the mitochondria. So the superoxide dismutase converts it, neutralizes it, and turns it into water. So it's like having a fireman in there putting out the fire of all these free radicals.

But as you mentioned, A, you don't have it after the age of 30 or 40 to protect your mitochondria. It's literally not found in any quantities that could be medicinal in any food, nothing. So you may be protected from free radicals or your mitochondria until the age of 30. Maybe that's why everybody looks so great until they hit 30 and then boom, you don't have that protection anymore and you can't find it in food. But it is in the highest concentration in spirulina. But here's the trick, it's not in all spirulina. Why? Because of superoxide dismutase, SOD is an enzyme, and most companies who grow algae dry their algae with high heat because they tend to be lower priced, higher volume

companies. So they need to get to market quickly. And the way to do that is to dry their algae with high heat. And anyone who knows anything about nutrition knows that the 114 degrees Fahrenheit kills enzymes of all kinds, including this SOD. So it may be in the algae, but it's actually deactivated.

This is, I think, one of the most important nutrients in spirulina, but it's virtually deactivated in everything that you're getting except ours or frozen spirulina. Now you're talking about powdered spirulina. Now it's a rough flavor and it is a difficult flavor. That's why when you swallow ours, it's easier and there's no repetition. Frozen spirulina is also going to have your alive super oxidase because it has not been treated with high heat, but it tastes pretty rough. It expires quickly. You can't travel with it. It's hard to find and it's very expensive. So it's not the best option, but it is another option other than ours. But yeah, super tasty. By the way, there are 25,000 studies in the NIH library that document how superoxide prevents or reverses heart disease, and Alzheimer's inflammation. The list is endless, but it's not found in food. Your body stops making it after the age of 30. And so spirulina really is, no wonder it's called a superfood. I think it's really more of a superhero or a super duper food.

**Dr. Wendy Myers:** Absolutely. And that's one of the main reasons that I take it every single day because it's super, super important to include this as part of your diet. It's one of the sod is one of the most powerful antioxidants, and you need all antioxidants on board that you can get to rev up your mitochondria. Can you explain in detail, we've talked before and you've talked in detail about how exactly the SOD is so critical for mitochondrial function and energy production. Can you kind of explain that mechanism?

**Catharine Arnston:** Sure. Well, there's a couple of things. So in your cell, you have these mitochondria and you can have up to 2 million mitochondria per cell in your brain. Your brain has the highest concentration. The next is women's eggs. And after that, your heart and then your muscles. So your high concentration of mitochondria is where the greatest energy is needed because mitochondria produce energy. So the problem is in your cells where the mitochondria are and you have your regular nucleus in the cell inside the mitochondria, which is where the ATP is produced, this is also where the mitochondrial DNA are. Your mitochondria have their own DNA. Most people don't know that there are only 37 compared to the 22,000 regular DNA that you have. And you may think, how important would 37 be? Well, let me tell you, they control those 37 control all of the other DNA, they control all of your other communication.

They're like an air controller at an airport. They control everything. So when your mitochondria, DNA, which are located exactly where the ATP is produced, are getting damaged, they die, they mutate, they send the wrong signals. This is what causes a downward spiral. But the effect is similar to how if you sat too close to a bonfire and sparks would fly, it might burn you while your mitochondrial DNA is getting burned every nanosecond. That's why their lifespan is about 10 days on average compared to your regular DNA, which is nowhere near where the ATP is produced and they last a lifetime. So as I said, the ATP is being produced, generating free radicals, and damaging your mitochondria. And the other thing I'm going to mention to you is that your mitochondria are the only cells in your body that have two membranes. All of your cells have a regular

membrane, which is called a lipid membrane, and so do the mitochondria, but your mitochondria have a second in your membrane and virtually nothing can get in there.

Your traditional antioxidants like vitamin C or vitamin E, can't get in there. Drugs can't get in there. There's a handful of antioxidants that can get in there, and they include glutathione, superoxide, de-mutase, and chlorophyll. And guess what? Algae has the highest concentration of superoxide, glutathione, and chlorophyll. And I'll tell you why there's that inner membrane in a minute. So this is why it's so important for you to have algae every day because they're some of the few antioxidants that can get in there to stop that free radical damage. When your mitochondria are damaged, the process by which the ATP is being generated is called the electron transport chain. The electron transport chain starts to expand. The mitochondria expand. And just like when you have a cell phone and you're in between towers and your cell phone sound drops, well, when your mitochondria and the electron transport chain, when those parts of the electron transport chain get expanded, they can't pass the electrons along, which makes the ATP.

And so more electrons escape. And what do electrons do? They create more free radicals. So here's a picture, for example of a healthy mitochondria, and here's a damaged mitochondria, and you can see all the big blank spaces because that's where the electrons can't be transmitted any longer. So they leak out into the rest of your mitochondria and cause even more free radical damage. That's why aging becomes a downward spiral after the age of 40. Our levels of heart disease, cancer and Alzheimer's are just escalating. And I think it's because our mitochondria are not getting protected after the age of 40 like they used to because you don't have the super oxidase, glutathione, or melatonin, that's when all this disease starts hitting us. It's right there, right when we've gone past being young and having all the protection that we wanted. And that's where we run into problems.

Those problems manifest as brain fog, weight gain, bad digestion, and lower energy. But this is why I feel that because algae have all these things, all these nutrients that protect you, we can do an intervention, an algae intervention, and get you back on track. The good news is your body is constantly regenerating cells. We have 30 trillion cells in our cells, and every day, 30 trillion die, and 30 trillion new ones grow. So when you give your body algae, you can flatline inflammation by removing the toxins, which we'll do with chlorella. We'll talk about that in a minute. You can start boosting your ATP production and your mitochondria again because you can give it all the protection it needs, and that's why you can start recovering from any chronic illnesses or you can protect yourself from even getting them at the beginning. And there's a great quote from John F. Kennedy that said, the time to repair the roof is when the sun is shining. So even if you don't have any symptoms manifesting, that's no reason not to start protecting yourself now because they call it silent inflammation because it goes on inside your cells without you even knowing. And it could be 10 years before the symptoms show up, heart disease, cancer, they don't show up overnight. They've been slowly building their way to this increasing manifestation. So you want it to unwind. It takes some time. So let's not get to that point where you have to unwind. Let's protect ourselves now.



**Dr. Wendy Myers:** Yeah, absolutely. You do not want to wait until you get a diagnosis of anything you want. Prevention is key because like you said, all these processes, heart disease, cancers, and other things are happening for years, decades prior, you getting a diagnosis prior to you manifesting symptoms, and it's a no-brainer to take spirulina and chlorella just for the nutritional alone, not to mention all of the other benefits that you get from taking these supplements. And so can you talk about any of the other benefits of spirulina before we move on to chlorella? So what are some of the benefits that people experience that they report, et cetera?

**Catharine Arnston:** Well, the good news is you don't have to wait long to feel any benefits at all, maybe 20 minutes. It's not like a drug where you have to build up a certain tolerance and you have to keep increasing again because it's food. And we grow ours in triple-filtered spring mountain water. So it's not from the ocean. It's in controlled triple-filtered spring mountain water. So the best benefit I think most people will find is that they're just not tired anymore. You do need at least 10 to feel something. And if you don't feel something, take more, there's only one calorie per tablet, even though you're getting all this protein, collagen, chlorophyll, 40 vitamins, and minerals. So 30 could be like a meal for 30 calories, and it cuts hunger, it cuts cravings, it gives you the nourishment that your cells need. It generates ADP, and it gives you energy at the moment because there are B vitamins that convert the protein into energy.

So the first thing you'll notice is that you're not tired. Now the kind of energy you get is cellular energy. It's not a stimulant. Stimulants are from caffeine, chemicals, or sugar, and you'll get a rapid burst, but also a rapid crash. Sort of like when you put paper on a fire, you get a big burst of flame algae, like putting a log on. The fire's a very slow burn. So if you took 10 tablets, you might not even notice anything except you'll suddenly realize, oh, I'm not hungry anymore, or, oh, I don't have brain fog. And if you took 30, you'd have that sensation for even longer. So it's just, I call it, there's no drama, no drama with algae. It's just, I call it steady Eddie. So that's number one, very nourishing. It's got zero carbs, so both spirulina and chlorella, have zero carbs.

So it's ketogenic. If you're doing intermittent fasting like I do, it's terrific to keep you on your intermittent fasting as long as you want to without that hunger, without that discomfort. And it's fast. If you can swallow water, and throw back 10 or 20 tablets, you're out the door in five seconds. So it's, as I say, very efficient nutrition. If you're using it as a pre-workout fuel, which we highly recommend, you'll again run longer or do a better workout and you won't even notice it and it will never upset your stomach. It's great to take in a faceted state before you work out so great pre-workout fuel, great for your kids, and your pets. You'll be giving them nourishment effortlessly. And ours is safe when we do third-party lab tests because we sell through doctors. So just to recap, spirulina gives you that instant alleviation of hunger.

You can eat as much as you want, it gives you gentle, quiet energy, satisfies your hunger, and cuts cravings. It will improve your skin, and your hair will grow. I have to clip my nails every week. They grow literally almost an inch. It's crazy because of the high collagen. So your hair will grow faster and better. Your skin will be clearer because it's alkaline and high in collagen. It's really the gift that keeps on giving it. You may take it for one thing,

but you're going to find so many other benefits. And in the long-term, you are protecting your mitochondria, which are critical for your longevity and for your brain health. As I mentioned, your mitochondria, the highest concentration is in your mitochondria. And it's not just the superoxide dismutase, it's also the high essential fatty acids. A lot of people eat fatty fish because they call it brain food, and a lot of it's because of the omega three that's in the fish. Well, I tell people, where do you think the fish get the omega-3 three from? They get it from algae because it's everywhere. So think of spirulina as brain food, nourishment and energizing you at the moment and long-term at the mitochondrial level. And if you take it, if it's something that's raw like ours and carefully preserved nutrients, it's safe and the most safe concentrated food you'll ever put in your body. So it's pretty cool.

**Dr. Wendy Myers:** Yeah, I mean, it's definitely spirulina. Chlorella is one of my number one anti-aging strategies. That's why I take it every single day. Just can't get enough of this stuff. And so let's talk about chlorella. Yeah, chlorella is super important for detoxification, very well studied, totally safe, just a lot of different benefits. Let's talk about that.

**Catharine Arnston:** And it's a completely different algae. It also has 40 vitamins and minerals, and it has a little less protein, but still 60%. But Chlorella's claim to fame is that it's a wellness and detox algae, spirulina, again, blue-green algae, which is very nourishing, energizing, and good for your brain health. Chlorella is completely different, won't satisfy your hunger, and won't give you energy, but does some other very important things. Number one, it has the highest chlorophyll in the world. We talked about spirulina, the highest protein in the world. And what does chlorophyll do? Well, lots of things. It builds your blood. In fact, a lot of people may not realize this, but the chemical composition of chlorophyll is virtually identical to the chemical composition of your hemoglobin. The only difference is that your chlorophyll has a magnesium atom in the middle, and your blood has an iron atom in the middle, and that's what carries oxygen.

So number one, chlorophyll builds your blood. But here's the problem, because our soils are so damaged and the ozone layer so damaged, we aren't getting chlorophyll and our vegetables anymore. Whether you eat organic or not, my arugula and I buy organic goes yellow after the third day. That's because there was never enough chlorophyll to start with. Chlorella algae has 500 times more chlorophyll than arugula. You could eat a room full of arugula, and you still wouldn't get the same chlorophyll that's in maybe a handful of these chlorella tablets, which by the way, we call recovery bits because they help you recover your health. And chlorophyll in chlorella has 25 times more than liquid chlorophyll. Now, I applaud people taking liquid chlorophyll drops, which are terrific, but chlorella has 25 times more. Plus when you take chlorella, you get higher chlorophyll and you get 40 vitamins and minerals, and 60% protein.

So you get all these other goodies that aren't in the chlorophyll water. So not only does it build chlorophyll, build your blood, but it's a fat-based pigment. The blue one in spirulina is actually a water-based pigment, which is a whole nother story. But because this is a fat-based pigment, it heals your cell walls, which I mentioned earlier, are made of lipids. And this is really important because your cell walls need to be permeable and other fats like vitamin E or omega help with that. And so does chlorophyll. So think of chlorophyll

as a kind of window washer for your cell walls. And when your cell walls are working properly, nutrients can get in. And here's where I know you'll applaud this. Toxins can get out if you don't have porous membranes, the toxins can't get out, and they get stuck in the cells, which then turn the cell more acidic, which means there's not enough oxygen in there, and that starts damaging the cell.

**Dr. Wendy Myers:** It can be a place for cancer cells to grow and become very dysfunctional. So think of a dirty fishbowl. You have your goldfish in a fishbowl and nobody's changed the water. That's what your cells look like inside if you don't have permeable cell walls. So chlorophyll helps keep them permeable just like those other essential fatty acids do. So very healthy per cell wall chlorophyll. It is also an antioxidant and kills bacteria. So people have used it topically on cuts, but it also kills bacteria in your stomach, in your mouth, in your colon. So hey, your poop won't be smelly, and normally your breath, so it's probably too much information. But chlorophyll is very, very cleansing, and killing bacteria does that.

**Dr. Wendy Myers:** Your poop will be green though. This is just a little bit of warning, but nothing to worry about folks, but just might be a little. It's food.

**Catharine Arnston:** I walk on the rivers where there's a lot of Canadian geese and I look at their poop on the sidewalk and it's like, Hey, their poop looks like mine. It's very green, but that poops that the chlorophyll has been going through your colon and cleaning it out. It's like having the little scrub AUB in there. So anyway, it's very cleansing because of the chlorophyll. But the other main claim to fame for chlorella algae, which again we call recovery beds. I'm going to give you some visuals. So this chlorella is recovery beds and spirulina we call energy beds. It has a hard cell wall and that hard cell wall attaches to toxins and not only attaches to it but chelates them, which means it pulls them out. I personally feel it's far better than using something like activated charcoal, which a lot of people use for detoxing.

But the trouble is that activated charcoal will pull out all minerals, and I believe you could run a risk of becoming dehydrated by pulling out all of your electrolytes, which are magnesium, potassium, and calcium. That never happens with chlorella because it introduces minerals to your body and it only attaches to toxins. So we're talking heavy metals like lead, mercury, radiation, aluminum, glyphosate, pesticide, lime spores from molds, and alcohol by the way. So if you're having some wine in the evening, make sure you take 20 or 30 chlorella and it will pull the alcohol right out of your blood within an hour and a half, and you will be stone sober and you'll never have a hangover. And also chlorella has a little bit of fiber in that hard cell wall, which is very important to feed your gut biome. They need fiber to generate what's called short-chain fatty acids to ensure a healthy bacterial load.

You don't want the unhealthy bacteria, so chlorella does that too, which is probably why it's been used for many years for IBS and Crohn's disease. Any kind of lower intestinal issue chlorella will help out with. And at the same time, it builds your immune system, which is primarily in your gut. So 80% of your immune system is in your lower intestine. And so this is where all the bacteria are and the killer cells that your immune system

creates to defend you from any kind of invaders. And so chlorella helps ensure that that can be done with the nutrients and its healing properties. So chlorella is very much a wellness detox algae that builds your immune system. Whereas spirulina is very nourishing for your brain and for your mitochondria, chlorella is very healing and detoxing and builds your gut so that you see that they do completely different things in your body.

I know they look similar, but it's like having biological twins. They still have different personalities and to help people understand the difference. I speak at a lot of conferences, and I said, well, think of spirulina as room service. It gives you everything you need for your day and very nourishing gives you energy just like you get from room service and chlorella because it pulls out that junk in your trunk and cleans out what you don't need. It's got housekeeping. So if that helps you understand the difference between the two of them. Spirulina is room service, chlorella is housekeeping or think of spirulina as brain food, and chlorella as gut and healing and detoxing food. Both of them are food as I mentioned, there's no processing. This is raw food. Think of them more like nuts. A lot of people when I tell 'em to take 10 tablets, they go, oh no mine too many.

But you could take our NHL players who have 75 spirulina before a game and they have 75 to give them focus. I didn't really mention that, but it gives you mental focus on the ice and speed. And the chlorella pulls out their lactic acid after the game. So I can't guarantee that after taking spirulina, you're going to become an NHL player. But if they find that it gives them the focus they need and the speed that they need, you'll too, I promise you. And also the chlorella will pull out lactic acid. We generally recommend spirulina in the morning, or in the afternoon because that's when you're tired and hungry and you want energy for your day. And we generally recommend chlorella. You can take it any time of day, but definitely before bed because as Wendy knows, that's when your body goes through its primary detox. The repair cycle is when you're sleeping.

We could probably talk for a whole another hour on the importance of sleep because if you're not getting deep sleep, your body can't get into that repair detox pathway. And so when you have chlorella in your body while you're sleeping, you're getting your beauty rest. And that's like having the cleanup crew in there, getting all the aluminum out of your brain and helping heal the membranes and making sure that all the toxins are pulled out. By the way, the chlorella also stimulates what's called peristalsis, which is another fancy way of saying a bowel movement. You can get rid of the stuff that you didn't want and get you onto your day. So very, very healing algae, chlorella, very healing and nourishing, or sorry, detoxing, and which is different from the spirulina, which is energizing and nourishing, but they're like your power couple.

**Dr. Wendy Myers:** Yeah, I love that you say they're like their biological twins because they're like their babies.

Yeah, and I noticed also the chlorella does stimulate peristalsis. It does kind of help you go to the bathroom, which is why a lot of people need help with that. I also second the notion that you said earlier that activated charcoal can be really problematic for people.

It does chelate minerals, it works too well, it gets toxins, but it also grabs a lot of minerals that people cannot afford. And that's why I've never recommended activated charcoal on a daily basis, maybe, maybe once a week, maybe in an emergency situation, say if you've drunk alcohol and forced your family to go to a fast food or chain restaurant or something like that, and you have a known chemical exposure, yeah, sure, why not? Hospitals use it, it's so effective, but on a daily basis, you need something much, much more gentle than say charcoal. I think they are very natural, but why not take a food-based supplement like this Detoxes Plus gives you all these minerals and nutrition and everything that you need to facilitate detoxification as well.

So on that note, can you talk about the known heavy metals and toxins that Cella is shown to remove?

**Catharine Arnston:** Oh gosh, the list is endless. We work with biological dentists because they are pulling out fillings that have mercury in them. And one of the best ways to get rid of mercury is with chlorella algae. And what's interesting is they give it to their patients, but they take it too because there's going to be fumes. Think of these dentists pulling out all these mercury-loaded fillings all day long. I mean, God bless them for exposing themselves. And so they take this a lot. We've got quite a few biological dentists and they're very adamant that their patients take this even before they come in for the removal and the doctors take them as well. So mercury for sure. Another really big one is radiation. You probably didn't know this, but the United Nations used chlorella after the fuk, sorry, the Chernobyl disaster years ago in Russia.

And also more recently, 10 years ago when the Fukushima disaster happened in Japan, the entire global supply of chlorella was brought up within 24 hours. You couldn't get it anywhere because they know that it's the only thing that will pull out radiation. And of course, chlorella being a plant crop, it took six weeks before because everybody had to start growing more chlorella before there was any available. And on the radiation, if anyone is taking chemotherapy for any kind of cancer treatment, if you take this after your chemotherapy, this will pull out the excess radiation so you're not as nauseous. So it's a game changer for you to get through that very unfortunate process that you may have to be experiencing. So mercury radiation leads, there's lead in our waters for sure, aluminum, a lot of Alzheimer's are linked to aluminum in your brain. This will pull out the aluminum and these heavy metals.

What else have I missed? Lead, mercury, radiation lead, and then also all the other contaminants like glyphosate and pesticides that are just as damaging while we're talking about things that are damaging. One thing, it's not really considered a heavy metal, but you may be aware of things called lectins and oxalates that are found in some vegetables. These are very sharp proteins that can puncture your stomach lining, cause food to escape into the bloodstream and trigger an autoimmune disease. And a lot of people go paleo or carnivore because a lot of these lectins are found in nightshade vegetables or nuts like almonds and so want they've had some stomach damage. Well, there aren't any lectins or oxalates in algae. Those plants had to develop lectins and oxalates to protect themselves from predators, like bugs and animals. They make them

feel sick too. But algae is an ocean-based organism, so it's never had to develop those to protect themselves.

So no lectins or oxalates at the same time, you're getting the nourishment and you're pulling out the toxins that may have been on some of the plants, or even if you're eating animal protein, if it's not grass-fed, you still could be exposed. Lots of heavy metals also release Lyme mold because these all create what's called mycotoxins, and they have the same effect in your body as any other toxin, which is interfering with cell membrane communication and functioning of the mitochondria. So anything that clears those things out, and when you talk about Lyme, this can take you a year to get rid of Lyme because they're constantly regrowing. And so we have a protocol where people are using stevia, tinctures of stevia, which kill the Lyme, but then you need the chlorella to pull out the dead mites because if they stay there, they cause additional toxicity.

And so you have to do that protocol for months to keep catching it when the Lyme starts growing again. So very, very safe. As I said, it's the gift that keeps on giving. Maybe you take it for detox, but you're going to end up finding you have more K two in your body, so you'll have less likelihood of heart disease because it clears out excess calcium from blood vessels from your brain or from your skin. You'll chlorophyll because it's so you won't have as many blemishes because bacteria will cause blemishes among other things. So this will neutralize the blemishes. So ladies I know well, and men are very conscious of our skin, and particularly as we get older, it's not as fresh and tight and it won't happen overnight, but algae truly helps you nourish your skin. It's beautiful from the inside because your skin's nourished by your blood vessels, just like your blood vessels nourish all your other organs. So it won't happen overnight, like I said. So don't go and look in the mirror every day, but it will help you retain your current vibrancy or hopefully even bring it back.

**Dr. Wendy Myers:** I love that there are just so many different components of spirulina and chlorella that are so key for longevity. And I mean, just so many things. So many people develop calcifications in their bodies. That's why they become kind of stooped over and they're stiff when their movements typically are calcifications. That's part of the process of aging. And a lot of people are dealing with that because of poor calcium-quality supplements. Also, as you said, they may be getting enough calcium, but not enough of the cofactors, the K two, the vitamin D, and magnesium, and things that some of those are found in the spirulina and chlorella. So really, really important to I think is to take these products to help with the calcifications that so many people are dealing with. If you have really stiff muscles and you pull muscles a lot or you get massages and it still doesn't give you relief, that can be a sign. You have a lot of calcium or oxalates in your muscle tissue,

**Catharine Arnston:** Right? And people aren't aware of that. Arteriosclerosis is the hardening of the arteries in many cases. It's the calcium that's hardening, and everybody thinks calcium is important, but the problem is we're taking too much calcium and we're taking D three and it's being absorbed, but it's not being absorbed where it's needed or where it should go. It should go to your bones, not your skin. Kidney stones are calcification and uric acid. I'm trying to think. There's when people get that swollen toe, there's a, oh, the

gout. The gout. Gout is again, uric acid, calcification wrinkles, calcium damages your elastin, which is what props up your skin. And so it causes when it is damaged, elastin drops and contributes to wrinkles. And the other thing I'd like to mention is that algae is food and it comes from nature and we're part of nature as well.

And when you take isolated vitamins, first of all, those tend to be made from extracts and they're very often synthetics and your body doesn't know what they are, so it can't absorb them. So you lose 90% of the value. But separately, isolated vitamins are like listening to a bunch of grade three soloists all playing their own instrument without different songs nothing works really well. Whereas algae, because it's food and there's a harmony and synergy of the factors and cofactors and enzymes and coenzymes, it's like listening to any symphony orchestra. I live in Boston, so the Boston Symphony Orchestra. So you get these harmonies that aren't available when you take isolated individual supplements. And because there's so much in the spirulina in particular, and because they work so well together, it plays well with everybody and it plays well with all foods lifestyle choices, by the way.

But you could probably eliminate your multivitamin, your fish oil, your coq 10, and your biotin. Now the quantities may be smaller than what you have on your supplements, but that's because the supplement companies know that you're not going to absorb them. So they jack them up so high and you will absorb 99% of what's in the algae. But again, you're taking food. We work with a lot of doctors who don't sell supplements, but they sell our product because it's food. It's considered medical-grade food, in fact. So if it's good enough for medical grade food, I can assure you it's good enough for your family, for your pets. And on that note, there's so much nutrition. We had that quote from NASA that said, one gram of algae has the same nutrition as a thousand grams of fruits or vegetables. So a bag of our algae tablets has about a thousand tablets in it.

And I use that calculation to determine that one bag has the same nutrition as 551 pounds of vegetables. So if you took 10 tablets a day, which is the starter amount that we recommend, a bag, first of all, will last you three months and it'll cost you a dollar a day, a dollar a day to get the nourishment that you need effortlessly in seconds with nutrients not found in any other food like the super oxid de mutase glutathione, a high chlorophyll, a dollar a day. I think you are worth it because you're not getting it from the other food. That's not even a mini small coffee from Starbucks, but it's for each one. So a dollar for the spirulina and a dollar a day for the chlorella. And honestly, if you don't have your health, you have nothing. And when you get a diagnosis, it will take you years to unravel that diagnosis.

Your whole life turns upside down. It's spent on getting doctor's appointments, going to the appointments, getting the medications, and changing your lifestyle. Now you feel so awful, or maybe you're getting radiation treatments or whatever, but don't wait for that moment. Everyone thinks it won't happen to me. Well, I think one in two people have cancer now. It's just insane. I started this because of my sister getting breast cancer. When I talk to people, every single person I talk to either has cancer in their family or has a very close friend experiencing it, and it's just heartbreaking. And it's because our bodies aren't able to protect and defend themselves from these toxins, and they just

don't have the nourishment they need to operate optimally. Aging does not equal decline. I need to help people understand that aging is going to happen. Declining is not necessary.

**Dr. Wendy Myers:** No, absolutely not. I mean, look at all the tribal people around the world. There are people in their sixties, seventies, eighties, still hunting, still super vibrant, no cancer, no heart disease, no cholesterol, all these things well into their old age. And I agree with you. I think for me, when my father had esophageal cancer, and I saw him for years before that, going to the doctor, he was on 10 medications prior to his diagnosis, just disgusting. This poly pharma is happening to so many people by so many, well-meaning, but not very well-trained doctors or people not looking outside of their typical medical training, which is controlled by pharma, and they are simply trying to control symptoms, but it's not good enough. And so people, for me, when I saw my father going through all that, I was like, hell no. That is not going to be me. And that's why you're listening to this podcast right now. Not only for my own help, but I want to help educate people on all the many things they can do. Nutrition is so important because so many people are, even if you're eating an amazing diet, I eat a fantastic diet, but as I get older, I need fewer and fewer calories. So I need less and less food. I'm doing intermittent fasting. I just can't. There are only so many vegetables that you can eat in a day.

**Catharine Arnston:** There's only so much time in the day to make them. As we get older, we just have to make adjustments. And it's so hard to find something that's nourishing. I'm saying stop eating or stop having pleasure from food. But I call this not only your nutritional insurance but your health insurance because this gives you the base level of what you need to live optimally. Not just live, but live optimally. And I think people don't even know what it feels like to live optimally. We get emails every single day, people saying, thank God for your product. Oh my God, my cancer's gone to remission, my Alzheimer's, and gone my, I have energy again. I'm 65. I can do this and I can do that. It's like, yay. I mean, that's the whole goal. We want to empower you to have the life that you had before or that you never had because nobody told you what you needed. We know how our cell phones work. We know to plug them in every night to recharge them. Your body needs to be recharged too, and it has to come from nourishment, from real minerals, macronutrients, and micronutrients. But I'll tell you, the food industry is not giving it to you.

**Dr. Wendy Myers:** No, it is not. Even if you eat a fantastic diet, you still need extra sources of nutrition. But Catherine, thanks so much for joining us on the Myer Detox podcast. That was amazing. So why don't you tell us about the website again and any offers you have for my audience?

**Catharine Arnston:** Yes, yes. Well, our website is [energybits.com](http://energybits.com), E-N-E-R-G-Y-B-I-T s.com. And we have a 20% discount for your community. It's MYERSDETOX, all one word, no space in between MYERSDETOX. Now, don't panic because there's no time limit on the discount code. And if you aren't ready to buy a big bag or a cancer, we have these really cute canisters. They come with bags in them and you shake the tablets out. But if you're not ready or you have any questions, just go to Amazon, and buy a little pouch for \$6. We have spirulina and chlorella, and we have a blended algae tablet called Vitale Bits, which is half and half



spirulina. There's \$6 for a pouch, 30 tablets in a pouch, spend \$6, you get prime shipping. Once you've decided that you've experienced it and you feel comfortable, come back to [energybits.com](http://energybits.com) and get your larger, higher-value bag or canister.

Again, 10 tablets a day will cost you a dollar a day to protect or regain your health and your energy and protect your longevity because we all want to be around as long as possible for our family, for our friends, for our pets, but it's more and more challenging. And the one thing I also just want to leave you with is that algae isn't new. It's just new to you. And the Asians have been using it for 60 years. The Aztecs used it 250 years ago. The Egyptians used it 2000 years ago, but nobody's really explained it to you until now. Just like nobody told you what collagen powder was until a few years ago. So here I am telling you what it is, but be very careful about the quality because you won't get all the benefits if you don't have a high-quality supplier. So we're proud to be recognized by doctors nationwide. I can tell you, you're in good hands with us. And at a dollar a day, instead of saying, why would I take algae? You should be saying, why wouldn't I?

**Dr. Wendy Myers:** Yes, I know. I recommend it to all of my patients. So, so important. It's the cornerstone of any health regimen, longevity, and anti-aging detox. You have to take stern on chloroform. It's just the basics. So Catherine, again, thanks for coming on the show, Wendy. Yes, and everyone, I'm Dr. Wendy Myers. Thanks again for tuning in to another episode of the Myers Detox Podcast where I'm bringing you experts more around the world on how to upgrade your health, improve your detox, and lots of anti-aging tips as well. So thanks for tuning in, and I'll talk to you guys next week.