Introduction to the Summit and Guest

Hello and welcome back to Reversing Mast Cell Activation Syndrome and Histamine Intolerance Summit. Summit. I'm your host, Dr. Meg Mill. And today I'm joined by Catharine Arnston who is the founder and CEO of ENERGYbits And today we're going to talk all about Algae.

We're going to talk about how Algae can actually benefit your health. We're going to talk about how I'm using it in my practice and how it can actually be a great tool for you.

So I'm so excited to jump into this. Thank you so much for joining us today, Catharine. Meg, so great to be here. I am excited to talk all things algae, ENERGYbits me too.

I always. we have a great information. Yes, we have a lot of great things to share today, but I just actually wanted to start just a brief introduction with you because I know that you have a purpose behind this compass and why you started it.

So would you just share a little bit about your story? Sure, because you have to say, how does somebody become an Algae nutrition expert? And I've been studying Algae now for 14 years, so much so that I've I'm now going to be writing my exams to get my degree, because I know I've learned so much and I want I'm eager to share.

But, I tell people I didn't choose Algae. It shows me I'm actually Canadian. I have an MBA, I was doing international business and then 16 years ago, my younger sister, who I'm very close to, who still lives in Canada, developed breast cancer.

Now, I first thing is I want everyone to know she completely healed and we celebrate her being cancer free every year.

Catharine Arnstonu2019s Algae Origin Story

But when she was preparing for her chemotherapy, her oncologist, which fortunately was a woman because women tend to be a little bit more open to nutrition, her oncologist told her she needed to change her diet to an alkaline diet because it would be helpful for her healing.

They didn't tell her what an alkaline diet was or why specifically it was good for her. So my baby sister called me and of course I wanted to help her and I had no idea of nutrition at all.

Like many of us, and found out an alkaline diet was mostly a plant based diet because of the Chlorophyl which build your immune system and the phytonutrients, and also, a German scientist back in the 40s by the name of Otto Warburg, won a Nobel Prize for discovering that cancer cannot exist in cells that are slightly alkaline.

So I think all these things contributed to my sister's oncologist wanted her to have an alkaline diet. So anyway, she did go through chemo. She did change her diet and alkaline diet.

I learned more about plant based nutrition. So the powerful healing attributes that were available. I gave up my corporate career of 25 years deciding somewhat had to tell the world about it because 16 years ago nobody was talking about plant based nutrition like they are now.

Then. Then I got some nutrition training, gave a, developed my own curriculum, teaching plant based nutrition. And this is what really led me to algae, because everybody I gave my lectures to said, I know I'm supposed to eat more vegetables, but I don't like them or.

Oh, and there's too much work to do, heavy to carry home. So I thought, okay, I have to find something that gives people the nutrition of vegetables without any of the work.

And so I went back to see everything I'd found for my sister. And that's when I got to Algae, which is the most alkaline food in the world, the most nutrient dense food in the world.

Even NASA has been feeding it to the astronauts for almost 50 years, and says that one gram of Algae has the same nutrition as 1000g of vegetables. it's been endorsed by the United Nations as the answer to world hunger, because it has three times the amount of it as a protein in a steak.

It's been used in Asia daily for over 60 years, where it's grown as an agricultural crop. Yes. Algae is not a supplement. It is a vegetable crop grown in fresh water.

Yes, Algae is in the ocean, but we don't grow ours in the ocean and all the benefits, some of which we'll talk about today, are documented in almost 100,000 studies.

So none of this is conjecture. It's on solid scientific footing. The only problem with Algae, it seemed to me, was that nobody outside of Asia knew about the healing properties, and that the quality was really poor because most of it came from China.

So 14 years ago, I drew a line in the sand and decided I would devote my life to learning more about Algae, helping people understand the scientific, attributes, healing attributes, the nutrients in it.

And I would provide a very safe, clean source. We get ours from Taiwan. So that was 14 years ago and here I am, still doing it and still loving it. So, I've done a little heavy lifting.

I've read probably at least 3000, scientific papers on PubMed at this point, so you don't have to. And I try to make the science of algae easy to understand, because it is remarkable what this amazing food provided to us by the Mother Nature will do for you.

But it has to be high quality and it has to be, nutrient what nutrient dense? And there's a lot of variety, like anything. So I'm very proud of what we provide for people.

Yes. Well, let's dive into the science behind that. Then we'll get into how we can really use this in mast cell activation and histamine issues. Because I'm, I am I you know, you and I have been talking about some research and I've been using it, but before we kind of get into that specifically, let's talk about Algae and just kind of the difference because I know there's different types of Algae. Yes.

Explaining kind of what each one what they do. Let's. Yes. And and there's so much misunderstanding or no understanding. So I'm really happy to do that. Thank you for the opportunity.

So Algae was the first life on Earth, mammals 4 billion years ago. Just as a point of reference, we've been on Earth for 200 million years, so brilliant Algae predates us by a long shot.

And, Algae is its own food category. There are two main subcategories. One is called macroalgae and the other one is microalgae. We're going to mostly be talking about microalgae today, but let me tell you what macroalgae is.

It's that stringy stuff that washes up on shore, also known as seaweed. And it's called seaweed because it's only in the sea and it's still good for you because it has high fiber and high iodine.

If you're looking for iodine, but it has virtually zero nutrition. I used to buy bags of kelp noodles and there'd be like two calories an entire bay because there's just fiber, not no nutrition.

Microalgae, which we're talking about today. Spirulina and Chlorella are two examples of microalgae. They are completely opposite to macroalgae. First of all, macroalgae is only in the sea.

Microalgae is everywhere. Yes, it's in the sea, but it's also in the rivers. The lakes, the streams, the soil. You're swimming pool, your aquarium and we harvest it, as most people do in freshwater Spirulina, Chlorella, the two that are grown as vegetable crops, not from the ocean.

So if you read about a blue green Algae closing your favorite beach, we're not talking about Spirulina. That's another. You know, that's the bad boy relative that's out in the ocean.

So number one, microalgae is everywhere. Number two, it has either zero fiber completely contrasting to macroalgae. Spirulina is a bacteria. It has zero fiber.

Chlorella does have some fiber, but very, very little. And the most important thing to know is that it is the most nutrient dense food in the world, completely opposite to macroalgae.

So you can see macroalgae, high fiber, zero nutrition, microalgae, zero fiber, high nutrition. And two of and there's tens of thousands of strains of microalgae.

One strain is Blue-Green, one is green, and one version of blue. Green is Spirulina and one version of green is Chlorella.

Microalgae vs. Macroalgae

They are completely different Algae. They're is different from one another as night is from day, and they do completely different things in your body.

And we'll go into some of that today. But the thing that you need to know is whether you go to target whole Foods or come to our, website, energybits.com, Spirulina and Chlorella are harvested in, as, agricultural crops this is a Spirulina farm.

This is the Chlorella farm. So there is blue green Algae in the ocean. But it's not Spirulina or Chlorella. These are grown hydroponically in freshwater.

We're known for having the highest quality because we grow ours. And triple filtered spring mountain water. That's important because Algae will absorb whatever's in the water.

So you need it to be super clean. so we grow it in freshwater, then we air dry it into a powder, which is also quite unique for us. We don't use high heat.

And as you're gonna find out, high heat kills with very many, all the antioxidant. Well, not all the antioxidants, but all the enzymes and some antioxidants.

Like a big one called superoxide dismutase. I know it's a mouthful. It protects your mitochondria, but all the other Algae companies use high heat, so they deactivated.

Also, the blue pigment in Spirulina called phi cosine and which has some healing properties for reducing histamine reaction. It is also deactivated by high heat.

So you definitely don't want Algae from China because they always use high heat to dry it. And then we press it into these tablets that we affectionately call bits because they're bits of food.

So as you can see, algae is everywhere, but it is, harvested, in, in freshwater as a food, a food, agricultural crop. And there's so much and then we press them.

This is the other thing I forgot to tell you about. we press them into these little tablets. like I said, are called Bits. I have mine sitting here. Too. Yeah, yeah. Good girl.

So Spirulina You can see Spirulina is a darker. It's a blue green. Algae is two pigments in it. The blue one that you've probably never heard of before called phi cosine.

And it only exists in Spirulina. The other Algae and spirit pigment in Spirulina is Chlorophyl, which, you've heard of before. That's what makes plants green, and Chlorella is just green.

You can see the difference in the color. But that blue pigment and there's scientific, research about it that, shows that it helps reduce mast activation.

And we're going to get into that later on about how, Spirulina and Chlorella both protect you because they both reduce inflammation, but particularly spirulina.

there's quite a bit of research about it. suppressing mast cell, activation. So it really helps with the reducing histamine. Yeah. Wonderful. You know what.

And let's get can we talk a little because I love how you gave us the how produce what we're using it. We talk a little bit about the difference as well.

Sure. Kind of what you're using one for versus the versus the other because we're using them for different purposes. Correct. So spirulina is a blue green algae, we call our energy bits because spirulina is known for giving you energy.

It gives you energy in the moment both mentally and physically, because it's loaded, has the highest protein in the world. Remember? That's why the United Nations endorses it.

and it's a complete protein. Both of them are complete proteins. They have 18 of the 20 aminos. But what's unusual about spirulina is that not only does it give you energy in the moment, because it's also loaded with B vitamins, which convert the, aminos into into glucose and gives you energy.

But there are nutrients in here that, improve the creation of what's called cellular energy. Cellular energy is like the electricity that keeps your body alive.

It's energy, for everything. Not just running to the grocery store. This is, thinking neurotransmitters, lymphatic system, heartbeat, immune system production.

So everything is required that requires your body to function properly and and effectively requires cellular energy and all that cellular energy, which is called ATP, is produced by something called mitochondria.

These mitochondria are the organelles in all of your cells. And just to give you an idea how many there are, there's 2 million mitochondria per cell in your brain.

This is why one of the best things about spirulina is it helps with brand thought. But the the particular nutrients in spirulina, like an antioxidant called superoxide dismutase, stops free radical damage of your mitochondria because as you get older, you have fewer mitochondria.

and the few that still remain tend to be damaged. They're more susceptible to damage because of the lack of this antioxidant called Sod. I'll say it. It's superoxide dismutase.

Your body makes this sod from the moment you're born, but by the time you hit 30, you have less of it. And by the time you have, you hit 40, there's zero.

And you can't get a soda from any food except spirulina and chlorella. Spirulina has the highest concentration, but it's also an enzyme. So all those other, companies G and use high heat to dry it, deactivate that.

So D so it's active in our algae. Or you could get it from frozen spirulina. And the way I describe how, this works,

this is why it's so energizing. Because when you have more mitochondria, they are able to generate more cellular energy.

Spirulina for Energy and Mitochondrial Support

So that means your body has more, electricity, shall we say, to do more things like heal from your illness or, or prevent you from getting illness or have more energy to move, to think, to have your heart work.

But, the way it works is that when you are creating, when your body's creating, this cellular energy ATP, I byproduct are free radicals. It's just the way it is.

And so this thing called soddy, which your body normally makes, is sort of like an umbrella, because what it does is it, takes the free radicals and turns them into harmless water so your mitochondria don't get damaged.

So you have this big golf umbrella from the moment you're born protecting your super your mitochondria from all this free radical damage. But then by the time you're 30, your big golf umbrella sod, there's less of it.

So it's like having now a little city umbrella, like one of those totes. And then by the time you're 40, that little umbrella has shrunk even more. So it's about the size of a cocktail umbrella, and then you have none.

So at all times, there's always been free radicals being released through the ATP cellular energy process. But you've been protected until suddenly you hit 40.

Now that umbrella is gone, the free radicals are now hitting the mitochondria, which are damaging them, killing them, or mutating them. And this, reduces your cellular energy, which means you cannot fight infections.

This is why this cancer can takes hold. This is why you have too much histamine. This is why you have brain fog, weight gain, digestive issues. so the key is to getting your mitochondria protected again.

And that thing called soddy is alive and well in spirulina if it has not been exposed to high heat. So it's like a superhero. It gives you back your superhero capabilities and you can reverse it illness because your cells are constantly regenerating.

So if we can get your mitochondria back on track and get in and heal again, it's like getting your umbrella back. yes, we all want that, right? Yes, yes.

Who wants to be stuck in the middle of a rainstorm? But that's what happens to your mitochondria. So you're just you're just shielding them. That's, But they need the shield.

And, most antioxidants can't get into that inner membrane of the mitochondria, but this one called superoxide dismutase can glutathione. Iron can as well, which is also in high concentration in spirulina and Chlorella and also, chlorophyl.

Those are three that melatonin can get in there as well. So, yeah. those we need to find ways to get these handful of antioxidants into the mitochondria to shield them from these free radicals, because when you have fewer mitochondria, then you can't protect yourself or, or heal from illnesses.

And it's just a downward spiral. Yes. Yeah. Well, and I know that you had we were talking before because we were talking about how there's now been research done even with spirulina in mixed with histamine.

Do you want to go into some of that. Yeah. Well, so I was quickly, you know, here there's this, there's, there's quite a few pieces of research out there.

Some of them were in clinical trials with, humans somewhere in vitro. but there's, there's it's extraordinary. how much research there is, there's just in fact, this particular one about nutraceuticals, it was particularly looking at,

focusing in which is that blue, that blue pigment that's in the spirulina.

And what it does is it's, reduces the, release of the histamine, the IgG, which, is binds to proteins, the allergy antibody. And that's what causes inflammation.

And that causes the release of histamine. We've actually had customers, tell us, oh, they forgot to take their, medication with them and their allergies were and they just doubled up on the spirulina while they were away and their allergies were fine.

Even my own team, I live in Boston and we're we're surrounded by trees. And we just went through the big spring bloom. And, if you have allergies, it's it's it can be very uncomfortable.

But everyone here at the company takes our spirulina chlorella, and it's amazing how much easier it is for them to get through the spring bloom, of, flowers.

so it works in a totally. It works in, science. So. And it's food. And so what I tell people is maybe you're taking the spirulina because you're an athlete and you want energy for your workout, but you're going to get all of these other benefits, like you're going to get to protect your mitochondria.

You're going to have less brain fog, you'll have less histamine. Or maybe you're taking it for the histamine reduction. Well, you're also going to get better skin.

You're going to get more remove your brain fog, your digestion will be better. and I know we only talked about spirulina. And I will give you a quick overview of of chlorella as well because they're quite different.

So it's the gift that keeps on giving whatever purpose you, you decided to take it for. And because it's food and it's 99% bioavailable, especially spirulina which has no cellulose wall.

So no fiber for your body to have to break down to get access to. So it's in your bloodstream in minutes, seconds if you chew it. I will admit, the flavor of spirulina is a acquired taste.

So most people do swallow it, but it's still, amazing. in terms of the speed by which it gets into your bloodstream. And this is really important because a lot of supplements get damaged in your gut during the digestive process.

But this gets into your bloodstream so quickly, it's almost like bypassing digestion. So it's very efficient nutrition. And who who wants to take medications when you can get, corrections naturally from food.

Yeah. And I think that's a huge point that you're making that it's food. And that's why I have been switching. You know, we're going to get into chlorella.

But when we, you know, a lot of people with mass activation syndrome, and, and histamine intolerance react to a lot of different supplements, you know, we can become hyper reactive, which we're, we're, you know, we're working on the root cause we're getting all of those things figured out.

But in the meantime, we also need to make progress on the things that we're doing. And one of those things is sometimes is that we need to detox from we need to pull things out of our body.

Yeah. As we get into chlorella, I have been switching people who are reacting to some of the things that we're trying supplement wise to over to the chlorella, because it is a food.

There's no binders, there's no fillers, there's nothing else in there to, you know, so it's a where it's another avenue to take, especially when you're reacting to so many things.

I think it's a it's a nice option right. And that's a great segue to Chlorella. So as I mentioned a spirulina, it's the algae that puts nourishment into your body, into your mitochondria.

It generates cellular energy. So it's it just gives you more ammunition to, to to live life more electricity to live. Live is probably a better way. And then chlorella it's claim to fame is it pulls out toxins so one's it still has nutrients, 40 vitamins, minerals and still has high protein.

Spirulina and Histamine Reduction

But it doesn't give you energy. It doesn't satisfy your hunger, but it removes toxins. We're talking heavy metals lead, mercury radiation, aluminum alcohol, lactic acid, pesticides, glyphosate.

The average adult in America apparently now has 700 toxins in them. And though and so even if you're adjusting your diet or using something like spirulina, if you can't get the toxins out, you're not going to get the, the true healing, benefits.

And the way I describe it is, you know, I live here in Boston, as I mentioned, and parking is always a premium. So having a parking space is a very treasured thing.

So let's say you have a parking spot and you pay good money for that. Well, you come home from work and someone's in your parking spot. Well you can't you can't get into your parking spot because someone else is there.

Same as toxins on your cells. You have these things called receptor cells. And if you have toxins attached to that receptor cell, it's blocking the way for good nutrients to get in.

So you can't get the full benefit of the healthy nutrient blocking, either blocking the way in or rerouting it, or just causing, other havoc. So you want to pull those out, and that's what chlorella does.

I feel it's much better than activated charcoal, which will pull out all minerals, but I find that's a problem because you could get become dehydrated because you've lost all your electrolytes.

Chlorella only pulls out the the heavy metals and the toxins. It in fact introduces. potassium, magnesium, all the electrolytes. Now, it also has all the nutrients that build your immune system.

And your immune system is primarily in your gut. And so you need a healthy immune system because this is what releases the, the, cells, like the killer cells and the T cells, that will protect you from invaders and will and will regulate that immune system.

So it doesn't you don't get into the over, reaction with the cytokines. So chlorella helps with that. And it also has but it does have fiber in it. So fiber feeds the gut biome.

So you again healing the, the the gut area. And it has the highest concentration of chlorophyl in the world. I mentioned earlier that spirulina has the highest protein in the world and has had chlorophyl as well.

Chlorella has the highest chlorophyl. I'm going to show you something. This is the chemical composition of hemoglobin. And this is the chemical composition of chlorophyl.

They are virtually identical. The only difference is that chlorophyl has magnesium in the metal in your blood has iron. That's what carries oxygen in your blood.

So when you take chlorella you're building your blood, you're building and you have healthy blood, you have more nutrients to be directed to yourselves, to your brain, to mitochondria.

So that's really good.

Chlorella for Detox and Recovery

And also chlorophyl kills bacteria, kills bacteria everywhere in your gut, in your colon, in your brain. So it's and

that's why, algae blooms show up on your beach, went to close your beaches because it kills bacteria.

It absorbs toxins and kills bacteria. It's the cleanup crew. thing in your body. So most people, we recommend you take the chlorella at night because that's when your body goes through a detox repair cycle.

so you'll get a. It also has the highest, tryptophan in the world, which helps you get into a deep sleep. Won't make you sleepy. Just help you get there.

It's a precursor to melatonin. And also it has something called chlorella growth factor, which, stimulates healthy growth cells and also stimulates stem cells.

So you can see it's a very healing algae. That's why we call our our chlorella recovery beds because it's very helps you recover. So you can see how they work differently.

Spirulina is very nourishing and energizing in the moment and also at the might a candidate level. So we usually say, well, I'll take this in the morning or the afternoon and then chlorella because it's a cleansing, detoxing, immune building algae.

That's kills bacteria and pulls out all the junk in your trunk because it stimulates peristalsis. It's an evening algae. So, I've also realized, you know, when you go to hotels, sometimes you get room service, which gives you all the energy you need for the day and the nourishment you need for the day.

And I thought, that's sort of like spirulina gives you all the nourishment and energy you need for the day. And then you come back to your room later on, it's all cleaned up and all the garbage is taken out and your beds are made up.

That's sort of like chlorella. It pulls out all the toxins, all the junk in your trunk, cleans everything out. So, you know, so think of spirulina as room service and chlorella as housekeeping.

And that might help you understand the difference. Yeah. That's like that's a good analogy. I have a couple of questions that I feel like the listeners will probably want to know.

Sure. the chlorella like for activated charcoal, like you're saying, it pulls out minerals and everything. You have to spread it out from food or from other supplements, medications, things like that.

Do you need to do that with Chlorella? well, the only thing I would say is that it does pull out the toxins and metals. And so if there are metals in any medications, I, I'm only aware of that, being in, vaccines.

But if you if you find out there's metals in your medications, then you would want to take it two hours before or two hours after. On the other hand, if you're, getting radiation or chemotherapy treatment, we strongly recommend you taking the chlorella the day after your, your treatments to pull out all the excess so that you're not as nauseous.

It's a it's really great for anybody who has cancer and is going through that treatment protocol. So, with spirulina, there's zero contraindications. Well, there's no contraindications for either of them.

But spirulina, you don't have to be conscious of it being taken near or with any medications because it's not a detoxing algae. It's cleansing, but it's not detoxing.

That's only the chlorella. So and by the way, both of them are safe for children, pets, grandparents. we have we really encourage you to help your older, family members, especially with Spirulina, because they're probably not getting the nourishment they need.

And there's no need, for them to decline as they age. Aging is natural. Declining is not. So, we want to keep people as healthy as they can be. And Spirulina, even if you changed nothing else.

And in terms of dosage, ten tablets of the Spirulina in the morning or the afternoon, it could replace many of your multivitamins, your fish oil, your CoQ10.

So it replaces a lot of things. And again, it's food that could cook. It can replace your animal protein if you want. And then Chlorella same thing. Ten tablets in the evening for wellness benefits.

It could replace your vegetables if you don't like vegetables. Never have to eat another one again for detox purposes though, you would need 30. So so the medicinal quantities of each would be 30.

Spirulina. So if you have an illness of any kind or a correction that you're trying to make, 30 tablets of each is better. But if you're if you just want to sort of plug a few nutritional holes and start slowly, ten of each morning and evening would work out.

And, just to put it in context, because people sometimes have sticker shock when they come to our website because a bag of each one is $130. But I use the quote from NASA that said, one gram of Algae has the same nutrition as 1000g of vegetables, so one bag of a thousand tablets has the same nutrition as 551 pounds of vegetables.

So that's like 30 grocery carts of of food right there in that one day. So I mean, if you only want to take two tablets, you know, that's fine too. But if you did take ten tablets a day and we have a 20% discount code or your community that brings that price down to 104, I think the code is histamine that and you take ten tablets a day.

That works out to a dollar a day, okay, a dollar a day to protect your health. You can't even get a coffee for a dollar a day, for goodness sakes. And a coffee will not change your life like Spirulina will.

this is game changing for your health. Yeah. Protects what you have. Corrects which you don't. And I can't urge you enough to start getting on the Algae training because it is the food of the future, and it is food.

So. And it's very affordable when you put, you start to understand what it equates to. So, I just want to encourage people to take a closer look at it and not be afraid of the price because it's it's very concentrated.

I call it intelligent food because, you have to be intelligent to take it, and it knows what to do when it's in your body. Perfect, I love that. Well, thank you so much.

Dosage, Pricing, and Where to Learn More

You've given us such great information. Do you have anything else you want to share about where people can find out more information? Sure. Well, come to our website even if you don't want to buy anything.

We write a full blog every month and it's always science reference. We don't say anything that can't be referenced by science and and and if you want to try it out and not make the big investment, we do sell little pouches on Amazon for $6.

So really, if you're very, affordable, way to try it out. There's 30 tablets in a pouch. So if you took ten a day, that would be, you know, three days worth or if you this could be lunch.

and it's got the three times the amount of protein so you wouldn't be hungry for five hours. Not spaghetti full, hungry full. But it would be nourishing and stop hunger.

so that's one way to try it. Slowly. Yeah. And the other thing I just like to leave with people is that Algae isn't new. It's just new to you. it's been here for almost 4 billion years.

The Egyptians wrapped themselves up in it 2000 years ago. The Aztecs used it as a main food. 250 years ago, it's been used daily in Asia for 60 years.

99% of Algae is grown there and 99% of us are consumed there. But why should they be the only ones benefiting from the longevity, the health, the wellness, the, I want you to enjoy it, too.

And you didn't probably know about Chia or Kiwa or matcha or bone broth or collagen powder until about ten years ago. All of these things have been used by indigenous peoples in other countries.

But then it took somebody to introduce it to you. So I want to assure you, Algae isn't new, just new to you. Mother nature's been waiting for you patiently to notice it.

and it will change your life in a way that no other food can. But it has to be high quality, or you'll be missing a lot of the nutrients. And I'm. I can't take credit for Algae, but I will take credit for growing it and drying it carefully so we preserve all the nutrients.

So you could give it to your newborns and know that it's safe. So I welcome you to the Algae world. we're so excited to find you. It will help you with your histamine issues and a thousand other things.

So thank you, Dr. Meg, for letting me share. Absolutely. Thank you so much for being here. Thank you. Take care everybody.