Introduction to Katherine Arnston and algae

Welcome back to the conversation today. My special guest is Katherine Arnston. Katherine, welcome to the summit. Thank you for having me, Laura. Very excited to be here talking about mitochondria health.

I know that is so your wheelhouse. You've dedicated so much time to this, so you're actually an expert in algae nutrition and you're a board certified health coach and you've spent the last 13 years researching algae, writing papers, giving presentations, lecturing at conferences and speaking on podcasts.

And you talk all about the benefits of algae. And really, this also led to you being the founder, CEO and chief scientific officer of energy Bits, and we'll get into that and talk about what this is.

But, you know, I think it's really important that we're having a discussion about algae because it does give us some really incredible solutions to some of the health problems and low energy issues that we're dealing with.

Analogy I mean, it's been on the planet forever. It's a 4 billion year old secret, right? So tell us, you know, why should we be talking about algae and thinking about this?

Exactly. Mitochondria health. So let's stop with that. Why ask? Because as you're going to find out, algae is way more than just a superfood that you put in your smoothie.

So here's the situation. 60% of adult Americans, 60%. That means you who are sitting here or the person beside you have a chronic disease. And when you hit 65, that jumps to 80%.

And what are those chronic diseases? Well, heart disease and cancer are the two big ones. But Alzheimer's, it just the list is endless. So why are we all getting so sick?

Well, it comes down to two main things. One is our bodies no longer are getting the nutrients they need to perform optimally or even to maintain our health.

And the second one is we have too many toxins. The average adult now has 700 toxins in their body and algae, spirulina and chlorophyl to address both of those issues.

Let's talk about the first one. Why are we all getting so sick and what? So if you already listen to some of these sessions, you're learning already that mitochondria health is where everything starts and stops with your mitochondria are the little organelles in your cells that generate cellular energy called ATP.

Mitochondria, ATP, and chronic disease

And that cellular energy does everything for you. It allows you to have the energy to walk, to talk, to think for your lymphatic system, for your heart to beat.

And when you don't have ATP energy, you are struggling and you will get brain fog, chronic disease. It's just a slippery slope. So and I tell people, ATP, Cellular energy is like money.

When you have more money, you can do more things and you can have more choices. You have more cellular energy, you can do more things and you can have more choices.

But why is it that 60% of adults over so over the age of 40 have a chronic disease? They're clearly suffering from ATP shortage. So here's what's happening.

Your little mitochondria are inside the where the ATP is produced and they are exactly where the when the ATP is produced. You also get free radicals as a byproduct.

Nobody's probably talked to you about that. But here's a picture of a cell. Here's your cell. And inside your cell are different things like your nucleus.

This is the mitochondria, by the way. There's 2 million mitochondria. Her cell in your brain, your brain has the highest concentration of mitochondria.

That's why Alzheimer's mental disorders, anxiety are really a mitochondria disease. So in your mitochondria, which are inside your cell, is where the ATP is produced.

But it's also where free, free radicals are produced and your mitochondria have their own DNA and they're located exactly where the free radicals are produced.

So it's just like when you sit by a bonfire or you get by a fireplace and sparks fly, you can get burned, right? Well, that's exactly what's happening to your mitochondria DNA.

They are exactly where the ATP and the free radicals are produced. So they are getting fried every nanosecond. And here's the problem. Your mitochondria DNA control your regular DNA.

They control the cellular communication. They control everything. So when they're damaged, they either die or they send wrong signals. And this is what leads to disease, because they become inflamed.

They the communications suffer and your health suffers as a result. Catherine I always say that there is a word for advanced mitochondrial decline and that word is cancer.

That word is heart disease, that word is Parkinson's, that word is Alzheimer's. That is advanced mitochondrial decline and disease. And this is exactly what you're illustrating here. Exactly.

So let me show you what a damaged mitochondria are, what a healthy and or damaged mitochondria look like. Here's a healthy mitochondria and here's a damaged mitochondria.

See all that space in the middle that's been caused by free radical damage? Oxidative of stress? And just to give you another little illustration, in your mitochondria, the ATP is generated through a something called the electron transport chain.

It's a series of molecules are located on the exterior of the membrane. And I end to end. So electrons have to go from one of these molecules to the next.

There's four of them before ATP is produced. Now it's sort of like a relay race. So if your mitochondria are damaged, those stations become farther and farther apart from one another, which makes it more and more difficult for the electrons to be transported from one to the next.

It's like asking Tom Brady to throw a pass in a stadium that's five times the size of a regular stadium. I love your analogies and how simple you're making this.

I know our audience really appreciates this. Okay, so here's a healthy mitochondria with all the different stations and see how tightly close, how tight they are.

But when they get damaged, then the mitochondria itself starts to expand and eventually explodes. It's called necrosis, but in the process it gets the stations get further and further apart.

So it's like a relay race. Someone dropping the baton except the baton in this case are electrons and the damage is not just that you didn't lose. They didn't win the race.

The damages that you caused, reactive oxygen species, you created more free radical damage. And that free radical damage slows down or stops the ability of your body to generate ATP.

And when you have less ATP, you have less, less energy, cellular currency to protect yourself. You left less cellular currency for your immune system to work, less energy to detect cancer.

And we'll talk about cancer and brain disorders in a bit more detail in a minute. Okay. So what I really want to talk about now is what we started with here is algae.

So algae obviously is going to be a solution to some of the problem here. So what is algae? Where does it come from and what are the different types that we can use to heal our mitochondria?

So you've established very clearly and I wish you could have been my biology teacher in high school, but so so that was a beautiful illustration.

How algae reduces free radical damage

Now tell us where what is this algae and why? Well, a couple of reasons why you need algae is because all this damage is going on in the mitochondria.

So there's two ways to stop the damage. One is to reduce the free radicals, and the other is to remove them. So the first way is to to reduce them, which is change your diet.

Carbs generate the most free radicals. Now you can go on to keto or a low carb diet that's fewer free radicals. So that's like exhaust coming out of a car. Right.

So the showing here is that carbs make more exhaust. And exhaust basically exhaust your mitochondria, which cause damage, but intermittent fasting and algae have the least free radicals.

So the number one thing that you can do is reduce your carbs and take algae or do intermittent fasting, because now you'll have fewer free radicals to to to deal.

With, to clean. Up. And the second thing is to remove them, but here's to remove the free radicals. Now, we all know that blueberries and vitamin C have lots of antioxidants, but none of those can get into the mitochondria because the mitochondria is the only cell in your body that has an inner membrane.

It has two membranes, the regular fat one and the inner one. And the only antioxidants that can get in there are three that your body makes. Bluetooth ion, melatonin and superoxide dismutase and a fourth one called Chlorophyl.

Now that's fine, right? You're protected because it can remove the free radicals. Here's the problem. Your body makes all of those great antioxidants until the age of 30 and then it stops.

And this is exactly when free radicals damage. This is when disease occurs. This is heart disease, this is cancer, this is inflammation. And it just gets worse and worse.

And why does your body stop making them? Because we only lived until 30 until a couple hundred years ago. Your body thinks you're going to die at 30. It stops making those protective antioxidants, and one of them is called superoxide dismutase.

But they all do the same thing. They turn the free radicals into water. It's like having a fireman in there putting out the fire. So the problem is, when your body stops making those, you're free.

You're and your mitochondria are no longer protected. But the good news is algae has the highest concentration of all for glutathione on melatonin, superoxide dismutase and chlorophyl.

So now there you have it. You have now you have those especially spirulina, which has the highest superoxide dismutase. So you can flatline all that inflammation.

And Morella, which has also pulls out toxins, it stops the damage from the toxins. So spirulina, which is a blue green algae, it has this highest concentration of superoxide dismutase, which stops the free radical damage.

And it also has something called by cosine. And I want to show you a picture. This is the two algae we call our spirulina is called energy bits and our chlorophyl is called recovery bits.

But what I want you to see it. I have it here. So energy bits. I love it because energy bits is blue because it is green. Because because spirulina is a blue green algae.

So I put it in a blue package and Clairol is a green algae. So it so here's the thing. Spirulina has two pigments in it. One is called by cosine and that's spelled Y.

So S. O. S. A, C, y, a and I n and crayola only has one pigment called chlorophyl, but I want to address this blue thing cosine. And because it's very important and it doesn't come in any other food.

So what's what's so important about it. Catherine? There's no other food where you can get this. Literally, the only place you can get it is from blue algae.

Blue, green, not just even blue green algae, just spirulina. It does now. And so here's what phi cosine and does. You can google fi cosine and there's how to spell it by cosine and then cancer treatments.

This was a these are pictures of a of cancer in a petri dish. And they did it. So you can see how how concentrated it is after 24 hours of giving putting phi cosine and into the petri dish.

Here's the time lapse. They're gone by cosine and kills cancer cells. It's gone. And you can google this. The pharmaceutical industry knows this. They use by cosine and in their in their treatments.

But they don't want you to know about that. No, it doesn't sell drugs. If that's what this by cosine and do it triggers something called cytochrome c which triggers apoptosis and autophagy of cancer cells.

Spirulina, phycocyanin, and cancer support

It leaves all the other healthy cells alone, you know. How are you a bubble wrap? You know, we all like to poke those bubbles on the bubble wrap only so.

So if I cosine and is the equivalent of poking and killing the cancer cell just like if you poke does a bubble but it leaves the rest of the cells alone.

It only detects cancer, sentient cells and sick cells. So psycho sign and ladies and gentlemen, is the Mother Nature's equivalent of chemotherapy. Except it comes in food.

By the way, spirulina also has the highest protein in the world, 40 vitamins and minerals. It endorses your body and nourishes your brain. But guess what?

It also kills the nutrient called psycho sign and has been proven to also kill cancer cells. So I can go online and do that. But I want to tell you one more amazing thing real quick.

Real quick. What's coming up for me is we hear the word superfood food. I'm using air quotes thrown around all the time. And if there's any food that could be in the category of superfood, I would say we just learned what it is.

Yeah, there's really nothing like it. Well, the problem is that algae is so well known in Asia. It's a multibillion dollar agricultural crop. It's grown in fresh water.

It doesn't it's you know, we grow it in freshwater. So algae does exist in the ocean, but we grow it in freshwater. It's not from the ocean. And we call our tablets bits because they're bits of food.

That's clearly the spirulina. So number one, it's a huge crop in Asia. Number two, the Japanese have been taking it for 70 years every single day. Number three, there are over 100,000 studies scientific studies documenting things like what I've just told you.

The problem is none of the science has been communicated to consumers outside of Asia. The science has been there in many some cases for 100 years. So, I mean.

There's good reason not to communicate it because it would destroy the pharmaceutical industry. Yeah. Yeah. Well, let me show you another cool thing about Spirulina.

Remember I mentioned that superoxide dismutase, which is an antioxidant that can get into the inner membrane of the mitochondria to stop free radical damage.

Well, a couple of things you need to know. Superoxide dismutase, also known as sod is an is an enzyme and we are one. We're the only company I'm aware of that does not use high heat to dry our algae.

Almost everybody else does. So you can go to Whole Foods or Costco and I can promise you that they use high heat because they're lower price, high volume companies.

So they had to get to market quickly, but it kills the superoxide dismutase So you're shooting blanks, you're not getting the full value. And what does superoxide Disney taste?

It don't do well. It protects your mitochondria, which reduces free radical damage, reduces inflammation, so you get more ATP and better longevity. And here's an example.

We just did a clinical trial about this, but I want to show you first, this is a picture of someone's brain. A lot of athletes who are in high impact sports, football, boxing, they would have concussions now if you had a healthy brain, this is what it would look like because red indicates activity, blue indicates inflammation.

Then they would have a concussion and the brain would go blue. No brain activity. So only after an EEG was done and the brain showed activity again, would the athlete be allowed to continue going back into sport.

Okay. So we just did a clinical trial with a group called the Gray Team there in Florida. And what they do is they try to help reduce the suicide rate of veterans, which, by the way, is 35%.

Here's a picture of one of the participants before. And all we did was give them a pouch of our little spirulina tablets. There's 30 tablets in here a day.

They did nothing else. This is for a month. So here's a picture of one of the participants brain. They're all all the data is the same. Their brain is blue.

No activity light. This is the frontal lobe. This is the parietal lobe. This is the backlog, a high inflammation after 30 days, the inflammation is receded almost completely and you start to see brain activity again.

This is incredible. This is just 30 tablets of spirulina a day or protective. That brings back the life of your brain. And this is a book you need to read called Brain Energy.

Dr. Chris Palmer just released it a couple of months ago. He talks about how all brain issues, anxiety, post-traumatic stress disorder, Alzheimer's are a brain are a mitochondria dysfunction.

And it's because the brain has so many mitochondria, there's 2 million personnel. So when they're not working, you get inflammation. But just adding spirulina, which is called energy.

This reduces the inflammation in 30 days, no drugs, no other interactions, nothing. So powerful is very powerful. And I have a lot more questions for you.

And I know and I know our audience is going to want to know how do I get this? How do I get this? Because, you know, we're unpacking here how critical this is.

So don't worry, everybody. There is going to be a link for energy bits on this summit on every page. So you just click the link and I'll take you right to the Energy Bit site.

And you have a you have a coupon code for viewers of this summit. Yes. If you type in MERS, which of course, stands for Mitochondria Energy Summit, you'll get 20% off anything that you buy.

And we do have we have large, large bags of 1000 tablets. If you took ten tablets a day, a bag would last. You a three months. So and each bag has so much nutrition because we have a quote from National.

It says, one gram of algae has the same nutrition as a thousand grams of fruits and vegetables, 1 to 1000.

Chlorella for detox and gut support

And if you don't like vegetables or maybe you're a paleo or a carnivore and you're not eating vegetables, you're still missing some really critical nutrients like chlorophyl algae is the highest constituent chlorophyl.

Here's a chemical composition of a hemoglobin. Here's the chemical composition of Chlorophyl Notice the audience. So for our audience, she's talking about blood.

So hemoglobin in blood. Okay. So the only difference is your blood has iron in the middle and Chlorophyl has him on magnesium, but algae has 500 times more chlorophyl than arugula.

It has 25 times more chlorophyl than liquid chlorophyl. There is nothing in the world with more chlorophyl than algae, and in fact the best one is chloro, which we call recovery bits.

It's because it's a green algae and it also pulls out toxins. Let's talk about this. So first off, I love your passion around this. I mean, we bring on every type of speaker on to this summit.

We've got the high level academics in the academia world. And then we've got people like you who are just so passionate that you went out there and created something to solve problems.

And it's just so fun to talk to you. So let's talk about this. So in my world, what I do in my programs and with my patients is I help people detoxify their bodies and get all the toxins out so that they can have high functioning, gut microbiome, high functioning mitochondria, so they can get their energy back, their brain back online so they can get rid of their, you know, autoimmune conditions and prevent ultimately chronic disease.

So this product here, recovery bits is really, really impactful for helping detoxify. So can you tell us more about that? Yes. Well, that's because Corella belongs to the plant kingdom and it does have a cellulose wall and it's in fact the hardest cellulose wall in the planking.

And it attaches to toxins led mercury, radiation, aluminum, mercury, lactic acid, by the way, as well as alcohol. So it will attach to the toxins and kill them, pull them out of your body.

And it doesn't naturally chloral also, which we call recovery bits because it helps you recover your health. It also has the highest concentration, as I mentioned, of chlorophyl and glucose, iron glutathione is also a detoxing antioxidant.

Highest concentration of it is in your liver. And so it's very, very important for detoxing. So it's got the highest chlorophyl, which is cleansing the hard cell wall that attaches to two toxins, the high glucose ion, and the fiber

which feeds your gut biome so that it can it can generate those short chain fatty acids, which will help you with your gut.

So generally people take the chloral at night because that's when your body goes to a detox repair cycle. You may not know, but your brain has its own lymphatic system.

It's like a lymphatic system. So when you're in deep sleep, it shrinks a little bit. So if you have aluminum in your brain, this will this will help pull it out.

By the way, the super oxidizing taste and that blue pigment that I talked about from the spirulina, it also removes amyloid plaques from your brain. It protects your telomeres from shortening.

When your telomeres shorten, that means the DNA gets exposed and then it starts to unravel and then your cells replicate in a damaged form. This is the most powerful thing to protect your brain for your life.

And so I tell people what you need to remember which algae to take. This is the spirulina, which is so good for your brain. Think about it. Working from the top down.

And this has all the gut biome issues, the heart cell wall, the rooms top and removes toxins, the chlorophyl is very cleansing the fiber that feeds your gut, your microbe microbiome.

So this is kind of a gut bottoms up. So this is top down, bottoms up. And another way is to remember, both of them, by the way, are ketogenic. They have zero carbs, but you want energy and focus in the morning.

Energy. Spirulina gives you energy. That's why both immediate it's not a jolt of energy because it's not from a stimulus, it's from nutrition. But it gives you energy nonetheless, mentally and physically.

So that's when you want that in the morning, right. And then this one, because it pulls out toxins when you're sleeping. This is what we recommend you take at night.

So think of it as an animal and a PM algae. So energy for your morning corella for your evening and they're great for kids, pets, grandparents, whoever is listening, please get your entire family on this if you had to make a choice.

Well, it depends on what your situation is, because if you have one hour trying to prevent cancer, this is the one. If you have it, you definitely need this because it also has what's called anti angiogenesis properties, which means it stops the growth of blood vessels to cancers and Corella pulls out toxins which are constantly damaging the mitochondria and can lead to cancer.

So the two of them are very that's why they they're kind of like your power couple, right? They make it happen for you. But by the way, spirulina is a bacteria does not have a cell in this wall at all.

So it gets absorbed very, very quickly. That's why athletes use it. We fuel NHL teams, Olympic teams, so it's very rapidly absorbed. And when it's absorbed, it's pulling all that superoxide dismutase, all those other nutrients into the mitochondria is where they can be used effectively.

I want to work quick. What's the ideal dosing? So so we have people, you know, there are people who are elite athletes who watch these summits. There are people who are, you know, moms and raising young kids who are watching it.

We have people who are retired, whose families are grown, and they're looking at preventing chronic illness and slowing down aging and living their best life.

So what is does the dose matter depending on what you who what age group you're in and what you're trying to achieve. And yes, the ideal dose for both of them.

Terrific. So the dose does matter. You just get better results from more.

Dosing, usage, and practical benefits

So for a maintenance perspective, ten tablets seems to be what we recommend for for energy and for prevention of this of the spirulina and also for wellness benefits from the corella.

However, and by the way, for children, I give them the number of tablets half of their age. So if they're four, give them two a day or six, give them three a day until they reach their teenage years.

But they can be so much more than that. So ten is a pretty good base level for wellness and for nourishment of the mitochondria. But if you have an illness of any kind cancer, diabetes, heart disease, you need to double or triple what you're taking.

So until you get to a base level of. 20 to 30 a day. Yes, well, I take about 100. Just so you know, there's no upper limit because it's food. It's just like some people, they have one egg and they're satisfied.

So athletes, maybe they have six for breakfast. You know, if you had the full pouch of 30 tablets, this is a meal replacement, 30 calories, 64% protein.

It has the highest protein in the world, more collagen than collagen powder. Also, build your skin and hair. So this could be a meal replacement, 34, 30 calories, zero carbs, no sugar, no gluten, no chemicals? No.

We do third party lab tests. So because we sell through doctor's offices nationwide, so it can be whatever you want it to be and you remember it. So cellular energy.

So if you took, you know, 30 tablets before a run, you'd have the best run of your life. You'll run further and faster and you won't even notice it or you'll live how much time?

How much time before that run should they take it? What. 10 minutes. It gets fast. Yeah, yeah. Oh, and if you chew it instantly, corella, it has a hard cell wall.

So it does take a longer time to get into your bloodstream. So you could throw that in a smoothie. You could throw this. Absolutely, yes. You're doing red light therapy take or cryotherapy takes these before because it nourishes your cells while you're either getting the therapy and it's also a vasodilator.

So it opens up the blood vessels. And then Corella is like the cleanup crew goes around after the cryotherapy or the red light therapy or after you're sleeping or after your workout and cleans up all the toxins or all the dead cancer cells that this has killed.

You want to get rid of them because you don't want dead cells sitting around because they they become toxic as well. So this is so incredible work really well together.

This is and by the way, when you take this every day, this can replace your multivitamin, your fish oil, cocoa, ten, so many other nutrients. And this can replace your vegetables, this sports fuel recovery fuel.

Honestly, these are a lifeline for your health, your longevity, and anybody can take it. So we all have parents and aging grandparents. Please, please, please, if nothing else, get them on this, Catherine.

Five at least ten a day, I promise you. We've had people tell us their Alzheimer's got into remission, their cancer went to remission. I mean, like that stories are endless.

Catherine, I want to. I want to. I just had an idea. I want to invite everybody watching right now because I know people are interested and they want this.

I want to invite you to try this and email me after 30 days, send an e-mail to Laura at Laura from TerraCom and let me know what you experienced. I would love to collect that information and give it to Catherine, and I will do that.

What I will do is I will collect that information. You know how this impacted you, where you started and 30 days later, how you felt. I will hand that all over to Catherine, because this is this is so fun when we it's.

It's very game changing. And I want to tell you one last thing. So remember when I showed you that picture with the mitochondria, with the tumor cells, and why there was why the most of the antioxidants can't get in there.

So here's here's a picture. So there's two cells on the cell membranes of the mitochondria. The only cell in your entire body that has two membranes. And here's why I didn't mention it.

But algae was the first life on earth 4 billion years ago. Started as a anaerobic cells called a Sino bacteria like spirulina. And there was no oxygen on earth when the cells started growing.

That's why it was an anaerobic cell, but it generated ATP and after a billion years there was enough oxygen for larger cells that were aerobic able to grow.

Now. Now, by then there's so much oxygen that the first cell was struggling. So I can imagine the conversation between the big cell in the little cell.

Origins of algae and closing remarks

Big cell says the little cell. Hey, little guy, I see you're struggling there and we're not doing so well generating the ATP. So why don't you come and join us?

We'll protect you from the oxygen and you can generate ATP for us. And that's exactly what happened. This is all documented in the Niaid's Library. Go into it's called indoor symbiotic theory, an original cell as cyanobacteria, like spirulina was growing, then it got engulfed by the bigger cell, but it did not digest it.

It co-existed and it became a mitochondria. Cyanobacteria became mitochondria. And that's why there is two cells in your mitochondria, because there's their original inner cell from when it was by itself before a second membrane was put around it when it got absorbed by the big cell.

So it makes complete sense to me that algae feeds everything that your mitochondria need because they're from the same family. And I guarantee nobody on our summit is making that connection.

So thank you so much. Well, Catherine, this has been so enlightening and amazing and exciting and high energy. And I love I love the high energy of this park and.

I use it all. I couldn't live without it myself. What I'm experiencing is hope for people and yes. And a solution that is a non-pharmaceutical and know.

Yeah. So thank you so much for the work that you have done in the world and the, you know, the invention of this product. Your body. I didn't invent it. I don't want to take any credit.

Mother Nature created it for you around here for a billion years. It's been used for safely for 70 years in Asia. It's just that no one's explained it to you here.

So I tell people, algae isn't new, it's just new to you. And just like you didn't know about Chia or a mature or a kiwa until somebody explained it to you.

Leave all these. Please, please go. Go to our Web site. Learn about it. Go online. Our website again is Energy Boots.com. We write a big blog. There's so much science, it's crazy that this stuff isn't being shared to you.

And this is the most noninvasive, natural, healthy way to support protect your health, your mitochondria, your family. You want to be around for your family.

Don't, don't, don't delay. Honestly, every day you don't have this in your is one more day your mitochondria are suffering. And one more time. What was that coupon code to.

Is m e s for mitochondria energy summit get 20% off. So if you need to you can go to Amazon. We sell them in little pouches for $6. So I just want people to be as healthy as they are in Asia.

The Japanese have the best longevity and so why should they be the only ones on the inside knowing about this great secret? So. Well, thanks for bringing it to the U. S.

and and the Western world. And, you know, just you've created when I say you've invented this, you invented a way to package it and bring it to us. That makes sense. You've created the education around it.

You've created sensible. I love this because it can just go in your handbag. Yeah. It's not going to take it with you. It's. It's so convenient. So. Yeah, yeah, yeah.

Please, please. It's effortless. Longevity, effortless. I call it your health insurance, not just your nutrition insurance, it's your health insurance.

And Lord knows, we need something. We need some good news, right? So you don't have to do anything. Just open your mouth and swallow them. You're done.

Thank you so much, Katherine. You take care now. Thank you to.