Brain Health Unlocked: The Power Of Algae Transcript

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Introduction to algae and brain health

Welcome to this episode of the Reverse Alzheimer's Summit. I'm your host, Dr. Heather Sandison, and I'm delighted to introduce you to Catharine Arnston She's an expert in algae nutrition and a wellness thought leader.

She's an experienced entrepreneur and a sought after speaker. We're so lucky to have her here today to teach us about algae and what it can do for your brain, and particularly how your brain makes the energy that it needs to repair and heal and age.

Well. Welcome. Well, thank you so much for having me. I'm so excited to share my little almost 15 years of research on algae nutrition that nobody outside of Asia seems to know about it, even though there's 100,000 studies documenting it.

So I hope the people listening will be very excited to learn about something that's been gifted to us by Mother Nature 4 billion years ago, but has just not been explained to you.

You know, you even mentioned spirulina right before we hit record. And I was like, oh, is spirulina algae? I had no idea. So will you break it Break it down?

Like, what are the different algae out there that we might have come across as consumers? And what are the differences between them? Absolutely, because they are quite different.

So, first of all, algae is its own food category. So and there's two main subcategories.

Macroalgae vs. microalgae

One is called Macroalgae, and the other one is microalgae. We're talking about microalgae. So as you mentioned, spirulina is a microalgae. But let me tell you what Macroalgae is First.

So you can understand the distinction between the two of them. It's basically that big, stringy stuff that washes up on shore, also known as seaweed or dulce or kelp.

Now it's called seaweed because it's only from the sea and it has lots of fiber and lots of iodine. So it's good for you for for those reasons. But it has virtually zero nutrition.

So to sum up, Macroalgae is from the sea. High fiber, zero nutrition. Microalgae is completely opposite. It is everywhere. The sea, but also the lakes, the rivers, the streams, the soil, your aquarium, your swimming pool.

It everywhere. And microalgae. Unlike Macroalgae, there's only a few strains. Microalgae. There are tens of thousands of strains. Now, these are called microalgae because they are microscopic in size, you cannot see them with your eye.

You can get a million microalgae on the head of a pin. That's how tiny they are. This is what feeds the whales, is what feeds everything in the ocean.

And if you are, learn about it here. And I call algae microalgae intelligent food because you have to be intelligent to take it and also knows what to do in your body.

We're going to tell you some of that. But microalgae completely opposite to macroalgae it is has almost zero fiber or has either zero fiber or virtually no fiber.

It has the most nutrients in the universe, even that size. We have a quote from NASA says One gram of algae has 1000 times more nutrition than any other fruit or vegetable.

And as I said, it's everywhere. It does not contain well, it does contain iodine if it's from the ocean now, too. And there's various strains of microalgae.

There's blue, green, green, red. But the two most popular are the two you've probably heard of, which are spirulina and maybe chlorella. Now, spirulina is one strain of blue green algae.

It is not the strain of blue green algae that closes your beach. That's a different strain. Spirulina is really only harvested as a agricultural crop in fresh water.

So, yes, there is blue green algae in the ocean. But it's not spirulina. Spirulina is grown hydroponically, which means grown fresh water we grow ours and triple filtered.

Our company's called ENERGYbits We grow ours in triple filtered spring mountain water in Taiwan. When we air dry it without high heat, which you're going to find out is very important because it contains very important antioxidants and enzymes that protect your brain.

And we'll talk about that in a minute. And then we just press them into tiny tablets that we call bits because they are bits of nutrition. So spirulina, a blue green algae, very high in protein, very high in collagen, 40 vitamins and minerals endorsed by the United Nations as the answer to world hunger, endorsed by NASA's having the most nutrient dense food, very, very powerful nutrition.

The other algae, which we sell and that you may be familiar with is called chlorella. Now it's called it's a green algae. It showed up on Earth a billion years after spirulina.

And it is a wellness.

Spirulina and chlorella explained

Algae spirulina is an energizing, nourishing algae as we're going to talk about. Is that energizing at the cellular level, this energy that it generates is done by made by the mitochondria in your cell.

And the mitochondria are what generate all these cellular energy, including in your brain, for you to function. And we'll talk about that more in a minute.

Chlorella doesn't generate energy, but it removes toxins, which is all heavy metals. Lead mercury, radiation and things like aluminum are known for contributing to Alzheimer's.

Lots of brain disorders are due to these heavy pesticides that have gotten into your brain. So chlorella is a wellness and detoxing algae. Highest chlorophyll in the world.

Chlorophyll, by the way, builds your blood. It's almost the same chemical composition, but the problem is virtually no chlorophyll exists in our bit in our vegetables anymore.

Chlorella has 500 times more chlorophyll than of arugula, and it even has 25 times more chlorophyll than liquid chlorophyll. And I'm not making this up.

These are numbers from the Linus Pauling Institute. So chlorella is a wellness algae that pulls out toxins, cleanses your body, removes heavy metals. It does have a bit of fiber, so it feeds your gut biome, the healthy the healthy bacteria there.

And of course, your gut and your brain are connected through the vagus nerve. So, so chlorella is very much a healing wellness, cleansing algae. And most people we recommend take it.

We tell you to take it at night because that's when your body goes through a detox to repair cycle. It also helps you sleep because it has the highest tryptophan in the world.

And tryptophan is a precursor to something called melatonin, which is very known for helping you sleep. So. So Spirulina and chlorella are two types of algae.

They are microalgae. They are harvested as food crops. They are not supplements. This is really important to understand because your body absorbs the nutrients from food better than it does from supplements.

And spirulina is not isn't even a plant, it's a bacteria, which is very important because there's no cellulose wall for your body to break down to get access to all the rich protein it has, all 18 of the 20 aminos, including the nine your body can't make and has very powerful nutrients like antioxidants.

There's a big long one called superoxide dismutase that protects your mitochondria and has the blue pigment in it called phycocyanin and which has been proven to kill cancer cells and also protects your brain.

So so spirulina is very much a brain food, not only because your brain, by the way, has the highest mitochondria in your entire body has 2 million mitochondria.

per cell So when you heal the mitochondria, the first thing that gets healed is your brain. And there's a great book I can strongly recommend about this is called Brain Energy by Dr.

Christopher Palmer. He's a psychiatrist at the Harvard Medical School. And his book, Brain Energy Talks about how everything from Alzheimer's to post-traumatic stress disorder to depression or anxiety is due to damaged mitochondria.

And because we've done our own clinical trials and there's tens of thousands of clinical trials out there that show that spirulina, the nutrients in spirulina, protect and restore your mitochondria.

So that's why I call spirulina brain food, because it is so healing for your brain and can either help you prevent or recover from some some dementia and chlorella, which also is helpful for your brain because it pulls out toxins, but it's really a wellness detoxing algae.

So you can see how they they were quite differently but in conjunction with with one another. And so you kind of alluded to this, that there's not that much chlorophyll in food anymore, but especially right now, it's important to be taking these highly nutrient dense foods as an algae.

Why is it so important right now, now more than ever? Yes, it's a great question. Well, you know, I read a lot about this, and the scientists are calling this era that we live in the great nutrient collapse.

How sad is that? Right. And the reason why is over the last 20 or 30 years, we've started using what's called mono cropping, where they use that, they put the same crop on the same soil, and so it depletes the soil.

So if the soil is depleted, there are no minerals for the plants to pull up. Plus, so much of our of our vegetables and food are now coming from countries far, far away.

Why nutrient density matters now

So they harvest them before they are ripe. That means the enzymes and the nutrients can't get to the leaves or to the fruit. So there so even though you're eating, even if you're eating organic, you are not getting the nutrients that your grandparents use.

And they've even done tests. They found that broccoli has like 10% of the nutrients in it that it had 50 years ago. The other problem is the ozone layer is is become damaged.

And so the plants now have more sugar in them and less chlorophyll and fewer nutrients. So and then on top of that, our food supply is so overprocessed.

If everyone is eating things that are white, packaged bags, heat kills nutrients, by the way. So any time you're eating anything that's been processed in a plant, in a vegetable or a factory, you're you're losing nutrients.

And even if you put nutrients back in, they're artificial. So your body can't recognize them. So this great nutrient collapse is contributing to all of our health issues.

People know that their cell phone needs to be plugged in every night to be recharged, so it works. But they don't understand that your body is the same way.

You simply cannot give it things that don't have nutrients in it and expect it to operate. It's like in a building. If you don't replace the light bulbs in your in the offices, eventually the offices are going to go dark and nobody can do any any work.

Your body's the same way. And you know what? Those lights are in your body. They're mitochondria. And so as you age and as they get older and they get damaged, they don't create the energy.

It's like the light bulbs going out. So algae basically turns the lights back on in your body and it does it through nutrient density. And on top of that, the other reason why people are getting so sick is that we are surrounded by toxins.

I read that the average adult in America has 700 toxins in their bodies and our immune systems simply weren't built to sustain that kind of toxic load. So if you and if you marry that with the fact that your mitochondria aren't generating enough energy, there's never enough cellular energy to recover from anything or protect you from anything.

So you are susceptible to things like heart disease and cancer and Alzheimer's, all these chronic illnesses that are hitting us. But when you have a strong immune system and you get that from proper nourishment, removing toxins, I tell people if you have too many toxins in your body, it's like someone's taken your parking spot, the toxins lodge in the cell wall.

And so they take the spot where a healthy nutrient or a healthy fat like an Omega three could get in, but it can't get in if the receptor cell is blocked with a toxin or a an acidic or inflammatory omega six.

So you need to remove the toxins from your body and nourish your body at the same time. So now you can get the nourishment in that the mitochondria need to generate that cellular energy, turn the lights back on and everything works.

So there's great nutritional depletion. It's a little it can kind of be depressing for some people. Tell me why. Well, actually, let's talk about something a little lighter and we're exciting.

You're getting your Ph. D. Can you tell us the science and the topic of your thesis that you're working on here? I know what's wrong in algae. Yeah, well, it's it's focusing on natural health, so I have a lot of coursework.

You know, I have a master's and I've got almost 15 years of researching metabolic health and mitochondria health. But I, you know, I need to get the basics of cellular biology and physiology.

So the first year is really just going through a massive reading list to make up all the missing pieces. Because I've been I call myself a citizen scientists because I've spent all these years going into PubMed, teaching myself because I had to understand why people were getting sick and why our algae was working so well and why hours worked better than anybody else's.

So it was a matter of I had to understand how the body worked. I had to understand molecular biology, I had to

understand plant biology, I had to understand evolutionary biology.

And I figured it out. And so but, you know, some of it's too it's unfortunate in this era we live in that we don't we don't think anyone's smart unless they have a bunch of degrees after their names.

In the old days you just learned and and so I don't have a lot there's some people that don't think I know what I'm talking about because I don't have a Ph. D.

So I thought, you know what? I'm going to get that Ph. D. because I'm going to pay for my personal satisfaction and be so I can teach you to speak with authority to my peers and help them understand this little specialty that I seem to have developed.

Research journey and the PhD path

I wasn't trying to develop it, but I got into algae because my sister, my younger sister 15 years ago developed breast cancer. Her oncologist told her to change her diet to an alkaline diet.

They didn't tell her what it was. I love my sister, I said, I have no idea what it is either, but I'll find out. Turned out to be a plant based diet because of the Chlorophyl Chlorophyl again, the phytonutrients that build your immune system.

And in helping her I started researching plant nutrition and stumbled into algae, the most nutrient dense food in the world used, grown and used safely in Asia.

For the last 65 years, multibillion dollar agricultural crop there studied and documented in 100,000 studies, endorsed internationally, and no one in America knows about it. Why?

Because it's not grown here and no one's told you about it. And I tell people, well, you know, a few years ago, you probably didn't know about collagen powder or chia or or or matcha or some of these other indigenous foods.

Well, algae is the same way I tell people. Algae. Is it new? It's just new to you. And so I have taken it on to myself to help break, go through all the science and find the nuggets that explain why it works so well for preventing Alzheimer's, for preventing heart disease, for gaining strength in your immune system and its food.

God love Mother Nature. It's its food. And its was the first life on Earth for a billion years ago. It's it's but the trouble is, it's not a shiny object.

It's been around for so long. It's been so visible. It's invisible. So I'm kind of giving it a new life. And I make the science easy to understand. I make sure it's all referenced with Pub Med and we package it are in in small little tablets that we call bits that you can swallow.

So now it's effortless. You ozempic has taken off because it's effortless for people to lose weight. Well, spirulina and plural algae we call our ENERGYbits and RECOVERYbits.

They are effortless to. If you can swallow water, you can get the nourishment you need for the day and you can protect your brain from just about anything.

There's higher medicinal quantities, but if you took ten a day and it takes 2 seconds, so it's and there's no contraindications, which means it doesn't interfere with anything that you're doing.

It's safe for every age from newborns to children to teenagers, your pets, your grandparents. And there's more nourishment in one tablet than you probably have all week.

And and it God bless Mother Nature. You're the founder, CEO and scientific lead of energy beds. Yes. And my understanding about spirulina and clearly is really important factors that go into how it's grown.

Like I've heard of glass grown floral versus some of the other ways to grow it. So when you talk about how it energy beds, you grow your spirulina and clearly in a unique way.

Well, we're I'm a bit of a purist. I think Mother Nature always knows better. So we grow ours in outdoors in what's called ponds, but they're hydroponic ponds, I guess you would say.

And what makes us there's a couple of things that makes us special. We we the it's grown in triple billed as spring mountain water. And that is important because algae will absorb whatever's in the water.

Algae is the one vegetable or plant, whatever you want to call it, that you should not ever eat wild because the ocean blue, there's a lake called Klamath Lake where they grow it.

There's what's called micro toxins in the wild bodies of water. They've studied them. You can't keep them out and algae will absorb them. And these cause prop brain issues, these cause damage to your cells.

So you have to keep the water really clean. And we do third party lab tests here in the United States, not only for the nutrition and the heavy metals, but for micro toxins.

And we never have any because we go hours and triple filtered spring water and the lesser expensive LGS do not. So that's number one. But the more important one is that we are one of the I don't know about other companies, but almost every other company except ours uses high heat to dry their algae.

This is so unfortunate because many of the nutrients that are found, particularly in spirulina, are deactivated by high heat.

How ENERGYbits are grown and processed

The other companies have to do it because they're lower priced algae, so they have to sell more, so they have to get to market quickly. And so this is the way they do it.

But when you do that, here's two powerful nutrients, particularly as they relate to your brain and Alzheimer's that are deactivated. One is called superoxide dismutase.

I'm sorry it's such a long word with short form is so deep. There are 25,000 studies, 25,000. That's a big number. Proving that this superoxide dismutase helps prevent Alzheimer's, heart disease, cancer, every chronic disease.

It reduces inflammation. It's powerful. But here's the problem. You can't get superoxide Disney days from any food zero except spirulina. There's a less amount in chloral, but spirulina has the highest concentration of anything.

It just doesn't exist anywhere else. And your body normally makes superoxide dismutase for you from the moment you're born until the age of 30. After the age of 30, it slows down.

And by the time you're 40 or 50, you virtually have none. The trouble is superoxide Disney takes, which is an antioxidant that protects your mitochondria from free radical damage is an enzyme and high heat kills enzymes.

So all of those other algae that are using high heat to dry their algae are deactivating that one critical nutrient superoxide dismutase that protects your mitochondria and therefore protects your brain.

So that doesn't happen with us because ours is a raw food. We don't use high heat. You could also use, which I endorse, frozen spirulina because it also has not been treated with high heat, but it's messy, expensive, can't travel with it and expires quickly.

So that's one nutrient oxygen superoxide dismutase proven to protect you from Alzheimer's or any dementia of any kind damaged by high heat. But not with us.

The other nutrient you need to know about is the blue pigment in spirulina. It's called phi cosine. And and I'm want to show that for you because you've probably never heard of it before.

It's p h y I don't even have in front of me here phyc0cypa and i n It's the blue pigment in spirulina. Spirulina is a blue green algae because there's two pigments by cosine and the blue one and the green one is chlorophyl.

What's so special about that? Cosine. And I wanted to spell it for you so you could google this and find out for yourself. It is proven to kill cancer cells.

I'd say that was pretty important. Whether it's brain cancer or colon cancer, breast cancer doesn't matter. But if I could sign it is also deactivated by high heat.

So if you are using any of those other lower priced algae, you may be getting some protein, you're getting some nutrients, but you're not going to be getting active viscose iron and you will with hours or you will with frozen spirulina.

Now, the way that the the blue pigment kills the cancer cells, the energy that's generated by your mitochondria, it's done in something through a process called the electron transport chain.

I don't want to get too geeky, but if you've ever watched a relay race, you know, a runner will have a baton and then they run a distance and they pass the baton to the next runner, and then that runner runs the next distance, and then hopefully they win.

Well, in the way that your cellular energy is generated at the mitochondrial level is very similar, except instead of passing a baton, there's four what's called molecules.

And so they're like the runners. But in sort of a passing a baton, they pass electrons and so the at the finish line is the generation of ATP. So the blue phase cosine and that's in spirulina in healthy cells, there's a little helper molecule sort of like having a Tesla.

It takes that that electron from one molecule the next and speeds it up. So in a healthy cell it generates more ATP cellular energy. This is why spirulina generates energy.

Cellular energy is why we call hours energy boost. But in an unhealthy cell, the Blue Pika sign identifies that it's a cancer or what's called a senescent cell and it ejects that will help our cell called cytochrome c, and that goes out and kills the cancer cell or the senescent cell.

So that's why I call it spirulina or both. Algae, quite honestly, intelligent food, because it knows what to do in your body and you have to be intelligent to take it.

So it's and you probably don't know much about mitochondria, but I would encourage you to Google it, learn about it because mitochondria, if your mitochondria, if you can keep your mitochondria healthy, they will keep you healthy.

It's that simple. But the problem is they're damaged by free radicals, which are a byproduct of this ATP production. And in the mitochondria have two membranes, so most antioxidants can't get in There the only ones that can can get in There are ironically the ones that are found in the highest concentration in both algae, superoxide dismutase, glutathione, iron and chlorophyll.

Pretty cool, right?

Using algae for daily brain and detox support

So not only when you take algae, are you improving your cellular energy so you can improve your mitochondria, so they can improve your brain health and it can prove all improve all of the cellular energy you are also getting the

few nutrients that can get in there and barricade those mitochondria from all those free radicals and they basically turn the free radicals into water and oxygen.

And by the way, algae is also the most alkaline food in the world. And your cells need to be at a slightly alkaline condition. A state, a pH 7.1, to ensure that they are maintaining oxygen, preventing cancer and keeping the communication working.

So so algae is your is I think it's your new best friend. I can't imagine life without it. I've been taking it every single day, both the spirulina in the morning and the corella at night for 14 years.

And it is the purest least. Ours is the purest, cleanest, concentrated, safest, powerful food you will ever put in your body, say, for your entire family.

So we can help people get regain their health, protect their health, and put this Alzheimer's issue behind us, because the trajectory we're on is not acceptable to me and I'm sure it's not acceptable to you.

Yeah. Tell us where our listeners can find out more about ENERGYbits Yeah, well, our website is energybits.com That's E N E R G Y B I T S.com and even if you don't want to buy anything, just come in.

We have a, we write a blog every, every month, lots of science, lots of links, but it is very concentrated nutrition and we have a 20% discount code for your listeners.

It's the word letters RAS that stands for reversing Alzheimer's Summit that will give you 20% off everything. And just to give you a little thumbs up, a large bag has a thousand tablets in it.

If daily maintenance is like ten tablets a day, if you are have a health condition like Alzheimer's, we would encourage you to do 30 tablets a day until you get a clear diagnosis.

But if you did take ten a day and you use your discount code, it works out to a dollar a day. You can protect your brain for a dollar a day. And we've done clinical trials that prove that in 30 days, people with all sorts of dementia, brain issues, the inflammation was gone.

It would have probably be gone in two weeks, except we didn't do the brain test until 30 days after the test. But this is a remarkable food. Now, if you don't want to do the full bag right away, you can also go to Amazon and we sell them for $6.

The two spirulina brands, these are the ones for brain health are called ENERGYbits. And we have a second brand called BEAUTYbits but they are identical, so we just package them differently.

Someone says, you have a boy spirulina and a girl spirulina because one's blue and one's pink pretty much. But it's just to make people comfortable. And then the chlorella is packaged in green because it's a green algae and it's called RECOVERYbits because it helps you recover your health and build your immune system and it pulls out those toxins that may be lodging in your brain.

So the two of them work very, very closely together. But if you took ten spirulina in the morning and ten chlorella at night, that's your maintenance dose.

And honestly, it's it's going to be a game. It's a game changer for everybody. We work with hundreds of thousands of doctors and consumers. And it brings us joy every day to hear the things that we're doing with the algae.

So it's Mother Nature at her best. We just grow it safely for you. But she's it's her. It's her invention. And so let's pay attention to mom. Thank you so much for being here and for sharing your passion and energy around chlorella and spirulina and ENERGYbits it's been such a pleasure having you.

Thank you, Dr. Heather. I appreciate it.