



Healthy Moms Podcast

BY **Wellness Mama**[®]
simple answers for healthier families

Episode 145: Algae: The Keto & Vegan Superfood
with More Nutrients Than Veggies (& Where to
Get It)

Child: Welcome to my Mommy's podcast.

Katie: Hello, and welcome to "The Healthy Moms Podcast." I'm Katie, from wellnessmama.com and I am here today with Catharine Arnston, who is the founder and chief scientific officer of ENERGYbits, and we are gonna get all in the weeds about algae today and it's gonna be super fascinating, but Catharine has had a 30-year career as an international attaché for the Canadian and British governments, she's published an international magazine, and was the founder and CEO of three startups. But, when her sister was diagnosed with breast cancer in 2009 she put her career on hold to help her sister, and in the process discovered decades of research on the benefits of certain plants, and also, an algae for recovery. And, she found that algae provides all the nutritional benefits of greens without cooking, cleaning or tasting green, which is a big thing for a lot of people. And the benefits have been known all over the world, especially in Asia for years, where this is a multi-billion dollar crop, it's been endorsed by NASA and the United Nations, and we're gonna really talk more about it, but it's fascinating to know that algae is keto, and low-carb, and vegan and considered a superfood by many people. Also, we're gonna mention it again later, but Catharine has offered 20% off of all of her products at energybits.com with the code wellnessmama, all one word, so make sure to use that code if you check it out. But Catharine welcome, and thanks for being here.

Catharine: Thank you, thank you for inviting me. I'm so excited to share what I know.

Katie: Absolutely, because this is something...I've researched this topic as well for years, and found probably some of the same studies that you have, and it's something I've tried over the years although typically in powder form, which is a little less palatable, but I wanna start at the beginning. Can you define for anyone who isn't familiar with it, what algae is and kind of take us through the different types of algae?

Catharine: Absolutely. It is a bit confusing, so algae is considered a plant, but technically, and there are about 15,000 strains of algae, and they are related to the seaweed family, but, algae is actually grown in fresh water, and the algae that we sell, and that you see in stores, is a crop that's grown hydroponically, means it's grown in water tanks, very carefully controlled, at least ours are. So, it is a plant, and in fact, algae was the first plant life on earth almost four billion years ago. The spirulina, in particular, as I say there's about 15,000 strains, all of which would be, either make you sick or possibly kill you, so don't go getting a spoonful of algae from your local stream or swimming pool because they would not make you well. The only two that are really used around the world are spirulina and chlorella, and we're gonna tell you the difference between the two of them, and the history. So spirulina is the one that was the first plant life on earth. Before spirulina, earth was just water and gas, but algae releases oxygen while it's growing and in fact up to 90% of the oxygens on earth, even today, comes from algae.

So, after billions of years of spirulina growing there was enough oxygen on earth for other plant forms to grow, and then chlorella, which is the other algae we're gonna talk about, it started developing. So technically, spirulina is actually a bacteria. Now, don't go, oh, you know, shock horrors, because actually, bacteria are really...some of them are very important for your health, and in fact, there's more bacteria in our bodies than there are in cells. But the reason why that's important is it helps explain why spirulina gets into your bloodstream so quickly. There's nothing for your body, no cellulose cell wall for your body to break down. So that's why athletes and anybody who's hungry, or needing some energy, loves spirulina, because it gives you that energy boost almost instantly.

And then chlorella, which was later found, about a billion years or so after spirulina, it's a wellness algae. We call our spirulina ENERGYbits because it gives you energy, mentally and physically, and we call our chlorella, RECOVERYbits, because chlorella, even though it has...it is in the plant kingdom, it's really what's called a sea vegetable, because it doesn't have any of the anti-nutrients that plants have, and we can talk a little bit about that. So, chlorella has the hardest cellular wall in the plant kingdom, which is important, because it attaches itself to toxins in your body. So it's been used for decades for pulling out mercury, lead, athletes use it to pull out lactic acid, it pulls out alcohol, anything that shouldn't be in there, radiation. They used it during Chernobyl, they used it during Hiroshima, and after the Fukushima disaster about 6 years ago, the entire world's supply of chlorella was bought up within 24 hours, because everybody in Asia knows that chlorella is the only thing that pulls out radiation.

So, it's so remarkable to me that these two entities that are a part of the plant kingdom, sort of, were here billions of years before us, and yet they were only discovered for their nutritional capabilities in the late 1800s, actually by the Germans, the Dutch and then the Germans, and then the big emphasis on using them for nutritional purposes did not happen until the late '50s and '60s, when the Japanese started learning how to cultivate it as a crop, and that's why all the algae pretty much is in Japan, China, Taiwan, India, because it's been known as a big crop for 50 years there, where it is such a big industry. And by the way, Japanese do not take any vitamins, none. They only take chlorella, when someone else will take spirulina, because it builds your health so well. So, it's fascinating, it's a whole food, it's nutrient dense, you can swallow or chew it, and yet...and I'm so proud to be really the person, I think, telling America about it, because we have people telling us, "Oh my gosh, I'm off my depression medication or, I'm not hungry anymore, I've lost weight, or my kids have more energy, and I don't have to eat greens." So it's kinda fun, we feel like, we're sorta like Santa Claus bringing all these great goodies to people, and it's just from something that was a gift to us from Mother Nature, and we know that mother knows best.

Katie: Yeah, exactly, but I definitely wanna echo what you said, about don't harvest it yourself, because that's a question I've written a lot about, like, for instance, activated charcoal, and had people ask, like, "Oh, can't I just get that from my barbecue grill?" No, no you can't, that's a completely different thing. And I think that's the same with algae, and it's an important point, like, you cannot just grow this in your backyard, or harvest it. It is a special process, which is partially what makes it so amazing. And I also love that you said that about bacteria, because I think you're right. In America bacteria has gotten a bad rap, and I've written a lot, actually, about how we've done more harm than good by sanitizing everything, and making everything anti-bacterial, in fact, I even spray bacteria on my skin on purpose, beneficial bacteria, and, in my house there's products for that. But, can you go a little deeper? So, I think, if I'm remembering correctly, that would be called a cyanobacteria, if I'm pronouncing it right, is that correct? And what separates that from other bacteria?

Catharine: Well, actually I'm not a bacteria expert, so I can't say...I really can't comment on other bacteria, but you know, our gut biome has suddenly become the focus of so much scientific research. A lot of your listeners may have heard that your immune system is primarily in your stomach, which is true, and there's the vagus nerve that connects the stomach with the brain, and if you don't have the sufficient bacteria in your stomach, it's difficult for you to digest food, to pull the nutrients out, so you might be taking in nutrition, but you're not absorbing them. Bacteria, there are some bacteria for example, that create B12, and in fact, there are...there's something called K2, which is also a new vitamin, that is also a bacteria, and it's created by bacteria. So, we have, I think almost twice as many bacteria in our bodies as there are cells, and in fact, one of the...some of the science has been showing that it is so important for mothers to deliver naturally if they can,

because the baby receives a lot of the bacteria through the birth canal, and that sets them up for being able to protect themselves from other, sort of immune disorders and whatnot. So I know some women do have to have c-sections, but if you can at all, deliver naturally. You will be helping your body by providing bacteria. It's the first set of defense.

And while we're talking about bacteria, one of the algae, I mentioned we have spirulina, which is the one that is a bacteria, but then the other one called chlorella, which builds your immune system, it helps populate your lower intestine with healthy bacteria, and in fact it's been used for, again, decades, for anyone with IBS or Crohn's Disease. And I always wondered, "Why is that?" And I found out recently, it's because the chlorella, and we'll talk about this later as well, has the highest concentration of chlorophyll in the world. We all know that chlorophyll is what makes plants green, but I didn't realize until recently that chlorophyll is what's called a fat based pigment, and it's a fat based antioxidant. Almost all those other pigments and antioxidants, like from apples and cherries, those are all water-based. It's very rare to find a fat based antioxidant, and the reason why this is important, is the fats heal the cell walls, and this allows nutrients to go in, and toxins to come out. So, when you digest chlorophyll, apparently only about 10% of it is absorbed in your stomach, and the rest of it stays through your intestinal tract. So it goes through the liver and all the way down through the colon, and this is why it heals the IBS and Crohn's because it's healing the cells down, as it moves through your colon on the way out. And, in fact, it also absorbs carcinogens. So, I laugh, because if you do take algae regularly like I do, and as most people do, I will...so I'll just let you know, your poop will be a little green, because it has that chlorophyll, and it's proof that the chlorophyll is staying with you all the way, all the way through. So, it has this wonderful ability to introduce healthy bacteria and to heal the cell walls in your gut. It's one of the thousands of things that it does.

Katie: That's so fascinating, and I definitely, I think you're so right on as far as babies delivering vaginally if possible. Of course, we never wanna guilt moms, I've had a c-section myself, but there's a fascinating documentary, you may have heard of it, it's called "Microbirth," and it really delves into the research of that, just for anyone who like, heard that and was like, "Oh no, what if I can't birth naturally?" And one alternative that they throw out there also, for moms, just anyone listening, is you can do a special kind of swab, where you actually culture your own bacteria from your body before you have a c-section, and then immediately wipe the baby's mouth, and eyes and skin with that bacteria to culture it.

Catharine: Oh wow.

Katie: So there's a whole process for that, and I've written about it, but I just always like to give hope to moms, because I know it can seem like a tough thing, but take us through some more of the benefits. So like, when you started really researching algae, and, especially for your sister, what were some of the things you found?

Catharine: Well, and the reason why I did this with my sister, is like, her oncologist told her she should change her diet to a plant-based diet because it would help her heal, and they didn't tell her what it was or why it would help, so that was...but I'm a really good researcher, so I said, "Don't worry, sis, I'll dig in for you." And so, some of the things I found were that, as I mentioned, the algae has the highest concentration of chlorophyll and the chlorophyll is so cleansing, and this is why they want you to take it when your health is compromised, or to prevent any kind of health compromisation. Everything about your health starts and ends with your cells, and the key is, number one, getting your cells, cell walls healthy, and you do that with...by, you know, essential fatty acids like omega-3, you know, good chlorophyll.

And then, inside the cell, there's something called the mitochondria, and this is where the...this generates the energy for your body, and also it allows your cells to communicate with one another. And a lot of the illnesses that we're seeing is because the cell walls and the mitochondria aren't getting the nutrients that they need, and what happens is whether it's, you know, sugar, or processed foods, that basically shuts down and damages the cells so they can't talk to one another. And so algae because it has all these nutrients including the chlorophyll, it helps bring the mitochondria, the cell walls, back to health. But I also found that spirulina, in particular, has a very high concentration of omega-3, and other essential fatty acids, we'll talk about it briefly. Everybody in the last 10 years have been hearing about the importance of omega-3, which is great, the problem is, everyone's getting it from fish oil, and this has caused two problems, one is that it's...there's a lot of overfishing, so there's entire dead zones in the ocean ecosystem now, because the fish have just been fished to death, literally and, ironically, where do you think the fish get the omega-3? Well, they get it from algae. So, even Dr. Oz and everybody, a lot of scientists say, "Look, we've gotta find another source of omega-3."

And algae is not only a sustainable source of omega-3, it's vegan, because it's a crop, it's a vegetable, so, so it preserves the ocean, it preserves your needs if you're a vegan, and also, research has also shown that virtually all fish oil goes rancid within about 30 days. It's just because of the oxidation process that it goes through. So here people are buying all this fish oil to reduce inflammation and yet they're introducing inflammation because of the way that it's oxidized. There is none of that with algae, because it's a crop, and we don't use heat. We just air dry it and then we press the water out of it into these tablets. So, I'm very proud that it's eco-friendly, a great source of omega-3, it also has a nutritional profile that is stunning. That's why NASA says one gram of algae gives you the nutrition of a thousand grams of fruits and vegetables. I mean, it has the highest concentration of protein in the world. It has three times the amount of protein in a steak, and it's all plant-based protein, so there are no downsides to it. It also has the highest concentration of iron in the world, and women particularly are...when you're going through your periods, you know, we lose a lot of blood, so you're iron-deficient very often. It's a big issue.

So here you can have all the iron that you need and it's all absorbed naturally, and iron is what carries oxygen, so this is why it helps prevent any kind of fatigue. I also recently, because I'm constantly researching on this, crazy woman, late at night, everybody else is tucking their kids into bed, and I'm digging through the science on algae, I found it recently, it has the highest concentration of tryptophan. Now, a lot of people know that tryptophan is in turkey, but chlorella particularly has five times as much tryptophan as turkey. And for those who don't know what tryptophan is, it's a precursor to a neurotransmitter called serotonin, and serotonin is known as the happy, the mood neurotransmitter. So it's really important to help you balance your mood and stay happy, and it's also the precursor to a hormone called melatonin, and melatonin is what helps you sleep better. And we've had clients tell us, "My gosh, I'm sleeping better now that I'm taking this." And I always wondered why was that happening, and now I know it's because of the tryptophan.

So, it has 40 vitamins and minerals, both algae do, and yet, there's zero sugar, zero caffeine, zero carbs, virtually zero fiber, so if you're on a low fiber diet it's good for you, one calorie per tab, although, and you can feel full, and be energized from spirulina, ours is ENERGYbits, for about...if you take about 30 of them. Now you could take less if you wanted, if you got the same benefits. So, it's a remarkable food, because it gives you all these benefits for virtually no calories, and because we put it in tablets, you can take it with you wherever you go. I was just on a two-week business trip, I know Katie, you travel a lot too, and I couldn't...I couldn't do anything without this stuff. Because, you don't know what time you're gonna get into your hotel room, you don't know whether they're gonna serve something that's healthy, and you know, I can't eat vegetable oil, it's

not healthy anyways. And so, I rely on this when I'm traveling, and you don't have to cook it, or clean it, or do anything to it. You just open the bag, or the tin, or the single serving, pop it in your mouth, chew it or swallow it, you're good to go. So it's pretty amazing stuff.

Katie: Yeah, for sure, it's something like I said, I've been trying for years, and also though, I could only find it in a powder years ago, and it does not taste as appealing that way. But I was gonna ask, and you kind of touched on this, but I hear from readers occasionally who, either they, or their children especially, tend to not like vegetables, and getting them to eat the greens is a problem. So, from what you said, based on the nutrition, can this kind of become a substitute for greens, or at least like a compliment?

Catharine: Absolutely. Absolutely. It's a complete replacement, it won't give you the fiber, but it will give you all the nutrition, and in fact, as I mentioned, the chlorella algae, it has a thousand times more chlorophyll than greens. Two hundred times more chlorophyll than kale or spinach, and I'm not making this up. These numbers come from the Linus Pauling Institute, and then we do lab tests to find out the different nutrient profile, and I share all our labs with our doctors, so it's completely documentable. So, you can, if you...and basically we tell moms and families, give your kids the same number of tablets as their age. So if they're two, give them two a day, if they're three, give them three a day, until they reach the teenage years, and then, if you want, you can give them a full serving, or if they're very active. We have so many moms who give...they're so happy to find the product because it gives the children the nutrition they need, and, instead of having a Larabar, or a candy bar before soccer practice or hockey practice, they can give them a, you know, a quarter portion, half portion, full portion, whatever they want, to give the children the energy that they need for their sport, and know that they're not giving them anything that's unhealthy. No sugar, no caffeine, nothing, and the children...actually the kids generally like to chew it, because it turns their tongues green. So they turn into a bit of a game. Or the moms make a happy face on the plate, or tuck them into raspberries, but yeah, it's a complete replacement for the need for vegetables. With the exception of the fact that you don't get the fiber, so, but they can probably get fiber from other things.

Katie: Yeah, for sure. I mean, and obviously think we should definitely eat vegetables too, and I'm a big fan, but for kids who are really picky that can be a great way to kind of, at least get the benefits, and maybe they can get their fiber from fruit in the meantime or...yeah, or other sources. And I've seen at least, some preliminary research that if you can ingest things over time, your body will develop a taste for it, I don't know if you've seen this research. For instance, if you take cayenne capsules, your tolerance to spicy food tends to increase over time, even though you haven't tasted it. So my hope would be, and I don't really have research to back it up, but if you're at least exposing them to these types of foods, over time they're going to learn to like, hopefully, a broader array of vegetables, which is the goal anyway. But I love that you said that about fish oil, too, because this is a post I've been working on for a while, and I agree with you. Most fish oils go rancid very quickly, in fact all of them. It's very difficult, and there seems to be some emerging research that that isn't the best option and I know a lot of doctors now are recommending if you're going to get fish oil, get it from sardines, or anchovies, or small fish, where it won't go rancid, but, of course, algae is another option. So that's great to know.

Catharine: Well, and you know, whales, they eat...that's all they eat, are micro algae, so, and look how big they get. But yeah, we're really excited. In fact there's another...a company recently started an algae farm in the United States, purely to grow the algae for the omega-3 component, nothing else. The other interesting thing is, as I mentioned, spirulina is...I did mention it, but it was the first algae, and it's called a blue-green algae. And while it looks very similar to chlorella which is a green algae, the blue pigment is called phycocyanin, and

it has very powerful healing properties, one of which, it's been shown to prevent cancer because it stops the growth of blood vessels to the tumors in cancers. But what I wanted to mention is that, it's the only source of this color, this beautiful blue pigment, it looks like the Aegean Sea, and about three years ago under pressure from consumers, the M&M's; company discontinued using fake dyes to color their blue M&M's;, and they now use spirulina, the phycocyanin that's in spirulina. So, if you are eating M&M's; in America, the blue ones have spirulina in them. Just at least the dye, not the nutrient component. It just shows you...and a lot of all these unicorn food that's going on, people are posting, all that beautiful blue, that comes from spirulina.

So, you can play with your food, and it's very healing. I mean, who knew that you could heal from your meal, as I tell people. So it's quite remarkable. But I do want to add a note of caution, because, like anything, whether it's B for anything, there is a great range in the quality and the purity and the safety. And you're gonna...now that you're knowing a little bit more about algae, spirulina and chlorella, you'll probably start noticing it on the internet, at Target, but virtually all of those products come from China and they're high volume suppliers, and they use flash heat, because it's a high volume, which kills the enzymes, so it's no longer raw food, and it disorients the nutrition, so you're not getting the nutrient quality that you would get from ours, all we do is algae. They also often use fillers, they're not as...the quality control isn't as high, so I just, add that as a precaution, in fact chlorella, as I mentioned, has the hardest cellular wall, it has to be cracked at production. And virtually everybody uses the original technique, which is to tumble it with glass beads, but I read about eight or nine years ago that there was a possibility that lead from the glass might be leaking into the chlorella. So, I said, "Well, if that's the case, even if it's a missed, possible chance, I don't wanna have anything to do with it, find me another way to crack the chlorella."

And we did, we found a more modern, safer technique, more expensive, but we pass our chlorella through a sound chamber and so that's the sound vibrations are what crack the chlorella, similar to what an opera singer's voice could do with a glass. And I told this to someone recently and they said, "Ooh, good vibrations are cracking the chlorella." So I said, "Yeah, we got good energy here." So, you need to be very careful, research thoroughly, as I mentioned we grow ours in Taiwan, which is the most highly regarded country in the world for growing algae, and we...I have touched every aspect of our company, so this is all we do, we stand by the quality and the purity. In fact, we are the only algae company that's endorsed by doctors and nutritionists because of the safety and the purity. But at least people are now learning about algae, because it's the safest easiest way to get your nutrition without any work, and you don't have to kill...you don't have to twist your kids' arms to take it.

Katie: Yeah, for sure. I mean, I've just been getting mine from you, because that's the easiest way for me, but for anyone who's a researcher and wants to, like, research all the options, can you kind of give us the checklist of things you wanna make sure, so that it's not processed with heat, and not processed with glass, like, are there other things that people should be aware of?

Catharine: Yeah, you don't want fillers, and I'm a purist, we don't have...we don't put ours in capsules, we just press the water out into these tablets. So there's no chance that there's any other contamination in there, so that would be my suggestion. Also, because of the pressing it, and also we package ours in UV protected bags, so, we have a very long shelf life, it's two or three years, but frankly it never goes bad, because the quality is so high. So you want to probably not buy something from China, probably not buy something in sort of the capsules, with the, you know, the veggie cap thing. You want to get...you don't want to have heat used to dry it, check to find out how they crack the chlorella, and see if it's...very few companies use this technique we use, so I don't know if I can give you much help on that one. Those are probably the most, the best ones, make

sure that the container is either an aluminum foil bag like ours, or a dark bottle, because light pulls the chlorophyll out of the algae. Now you'll probably still keep the nutrients but the chlorophyll is very healing, so you want to maintain the high concentration of chlorophyll. We hope one day to grow it here in America but, it's a very, very complicated crop and would take a lot of money, but that's the goal, for sure, and we also wanna make it available, hopefully, one day, to school lunches, and nursing homes, and disaster areas. So we have some big plans.

Katie: Oh yeah, for sure. Those are two areas I wish I could kind of, change the nutrition overnight too, schools and nursing homes, oh man.

Well, I know I'm gonna get tons of questions if we don't address this, so can you kind of give us a rundown of who can take it, and when, and how much. Because I know we're gonna get the, what if I'm pregnant, what if I'm nursing, and what about my kids, how much can I take, so, address all of that.

Catharine: Okay, well, first of all, let's address spirulina. Spirulina is not only is the safest food in the world and it's so safe, and I'm sort of stealing my thunder for my...I was gonna talk about later, that it's the only thing that keeps babies in Japan alive if they can't digest mother's milk. They've tried everything. Rice milk, hemp milk, doesn't matter what they give them, it's only spirulina, and they give it to them in water and I'll tell you why later, because it basically has the same nutrient profile as mother's milk, like, that's just stunning to me. So, I tell you that because pregnant moms, newborns, any age from 0 to 100, can benefit from spirulina. It's the easiest thing to digest, it gets absorbed almost instantly, has a full nutrient profile that's remarkable. And we generally suggest, because it gives you energy but it's not the kind of energy that would keep you up at night, or, it doesn't give you any jitters, because it's just nutrition, so there's no rush, and there's no crash. The best way to describe how you feel is you just feel alert, you feel like you had a great night's sleep, you feel, just, mentally and physically alive, it's just...you're just fresh, fresh is probably the best way.

So, our adult single serving size is 30 tablets. When you buy the bag, we give you a cute little tin, so that you can fill the tin up every day and take it with you, and the tin holds about two and half servings, so you're pretty good for the day. A lot of people have them for breakfast, so you just throw back a handful. You don't even have to measure them. Remember, these are not pills, this is a snack, this is like eating nuts, or raisins, or kale chips. So don't feel too...that you have to count them out, but if you don't, if you get the benefits from a smaller portion, take a smaller portion. We just found after four or five years of studying, the numbers that were required to feel energy, that 30 seemed to do it for everybody. Just so you know, we fuel five NHL teams, and they put 75 of our spirulina ENERGYbits in their smoothie, and 75 of their chlorella RECOVERYbits into their smoothie, because chlorella pulls out the lactic acid and spirulina gives them the energy. So don't be afraid of having more, same with marathon runners, they always take at least a single serving prior to a race, and then they take more as they fatigue throughout the race, and then they take the RECOVERYbits after to pull out the lactic acid.

So, spirulina have anytime, by itself, before meals, with meals, if you have it before a meal you'll eat less because it satisfies your hunger, so it can be a meal replacement. We have lots of people losing weight on this, because it satisfies your hunger and it's only one calorie per tab, so you can have it for breakfast, you can have it for lunch, you can have it at 2:00 when you're feeling fatigued, you can even have it right up to bedtime if you want. Because, again, it doesn't give you that kind of energy although we generally have been recommending RECOVERYbits more in the evening, or after a sport, because RECOVERYbits pulls out their...that's chlorella, it pulls out toxins, and your body goes through a natural cycle when you're sleeping anyways, of detox. So, we say, "Hey, well, you might as well take the chlorella to facilitate that detox even

better," and the chlorella is the one that has the highest tryptophan. So now it's helping you sleep better as well. So you're detoxing, you're sleeping, it's not an energizing algae at all, so if you had any worries about that, then you're completely safe. But again, like spirulina, you can take them any time of day, with food, without food, it will not satisfy your hunger or give you energy, but you can take them anytime you want. Definitely after a workout or a run, because it will pull out the lactic acid.

We have baseball players, some who are catchers, and you know, they're in the squat mode for anywhere from three to five hours, and their legs used to just be in such pain, but now they've started taking the chlorella, they're pain-free the next day. It's quite remarkable. The only caveat I would say about the chlorella, is that, there are...there is about 1% of the population that doesn't seem to be able to digest it. So if you have any thoughts or concerns first, we do sell single servings on Amazon, so, and they're \$4, I would encourage you to try that first, so that you don't get stuck with paying a lot of money and finding that you have...you know, one of that 1% that can't digest or tolerate chlorella, and you'll know. But everybody can tolerate spirulina. And the other thing is, because chlorella pulls out toxins and we're not allowed to give medical advice and we always err on the side of caution, I would suggest that pregnant moms not take the chlorella, because it will pull out toxins and we do not want that to go...to be transferred, the toxins to be transferred to the baby, or certainly, wait until you stop nursing, and then start taking the chlorella. But the spirulina is not a detoxer, so you're completely fine, and in fact I would urge any pregnant moms and nursing moms to take spirulina.

One of the reasons why is because it has the second highest concentration of an essential fatty acid called GLA, stands for gamma-linolenic acid. The only place in the world that has more GLA than spirulina is mother's milk, and the reason why it's there, is because the baby's brain doubles in size in the first couple years after birth, and GLA is one of the nutrients that helps facilitate that healthy brain growth. So it's good for you to take it while you're pregnant, so it starts the baby out, you know, getting all those great brain cells working, you're gonna create another Einstein, it helps give you energy as a mom, it gives you energy after you...when you're nursing, it's just what I call efficient nutrition. So, it's good for all ages, from birth, pre-birth, spirulina pre-birth, to seniors. I just had a colleague of mine call me because her father who's about 89, and has been on a lot of medication, and he was worried because he was getting fog, brain fog, and he didn't like the medication, and he saw me speak recently. He decided to discontinue his medications and start taking the algae, and only after two weeks he feels so much better, has so much more clarity.

We work with doctors who use it for post-traumatic stress disorder patients, and originally they were gonna prescribe a whole protocol of coQ10, and fish oil, and B vitamins, and like six other things, and now all they do is give them the spirulina algae, because it helps so much with brain health. So, spirulina is good for any age, at any time, before meals, instead of meals, for sports, any kind of brain health issues, ADHD, and the chlorella would be good for anybody, other than pregnant moms. Also, they use chlorella for cancer patients, because it pulls out excess chemotherapy. So if you know anybody that's taking chemo, this will help them stop being sick after the treatment, because it pulls all the excess out. And it also pulls out mercury, we're working with dentists who are trying to get the mercury out of people's mouths. But the only caution is that pregnant moms should probably not take it, wait until they finish nursing, and there is a slight possibility that a small, very, very small percentage of people can't tolerate it, but it's pretty safe as well. If it's from us. I can't vouch for other algae companies.

Katie: Awesome, and that's important to know, too, I think that they can be taken complementarily, since they offer different benefits you can take both, or alternate, or whatever feels like it's gonna work for your body.

And, I think also, the reason I've become so much more interested in this recently is just realizing that we have a two-fold problem, that we know from the data right now, which is that we have a huge exposure to all these like, harmful chemicals, and just, I mean, everything; environmental pollutants that we're exposed to every day, which can affect your cells. As we learn more about epigenetics, these things can actually, like, alter our body and our gene expression, and at the same time, we know that we are this...what do they call this, overfed and undernourished society, where we're eating plenty of food, but we're not actually getting nutrients. And so, to me, this is an easy way to try to address both of those problems, which are definitely...seem to be growing problems right now.

Catharine: Exactly, and I can almost promise you, that because there are so many nutrients you don't need any other vitamins, other than D3 if you live somewhere north, in the wintertime, and maybe some vitamin C, but everything else, your multi, your coQ10, your calcium, your magnesium, your B vitamins, you don't need any of those, and you will feel better, because this comes from food. All those nutrients, all those supplements, they're made in labs, from artificial extracts or extracts, anyways, and they aren't the true representation of the vitamin. And the example I give people, is that everyone says, "Oh, well, I get my Vitamin C from ascorbic acid." But if you actually do some research on vitamin C, you'll find that there are 222 components to vitamin C, of which ascorbic acid is one component. So I tell some of my young interns, it's like going to work with just your shoes on. You know, where's the rest of the outfit? Where's your top? Where's your pants? When you take just one component, your body doesn't know how to recognize it and so it doesn't absorb it. So a lot of people are taking these vitamins thinking they're helping them, and frankly, you're not even absorbing them.

But when you get your nutrients from a food source, a whole food source, that has not been processed, like algae, you have all of these other magical synergistic factors and co-factors and enzymes, and co-enzymes, none of which we can even put...we don't have room on the label for everything, but it works. Your body goes, "Oh, I know what that is, sure, come on in." It's like welcoming someone in your front doorstep, "Oh I know all that good stuff that's in there. Absolutely, come on in." So, you will automatically feel better because you're finally absorbing what you need, and when your body gets what it needs, it will heal itself, it will...you don't need all these drugs. It breaks my heart, I hear the average person is on five medications, and we can prevent illness by making sure people are properly nourished with real food, and since there's a short supply of many foods and even if you are eating greens, the soils don't have enough minerals in them anymore, and the CO2 level has cut down the quality of the nutrients in the plants, so you're stuck. I mean, unless...I tell people, "Take algae and have your own garden." That's your answer to how to eat healthy. At least I think it is.

Katie: I echo that. I'm a big fan of having your own garden, and getting things from food, like, for instance, for vitamin C, certainly there are some great food based supplements for that as well, but I just start every day with lemon water, which has a whole host of other benefits, and also lemons are a rich natural source of vitamin C and I just make sure I swish my mouth with water after to get the acid out. Things like that, like it's, finding ways to like minor things we can adapt in our day, and ways to get more nutrients, and that aren't complicated, like the algae. They're just easy things you can add, but I 100% agree, everyone should have a garden if at all possible. I echo you on that. And, I wanna make sure we leave time, because I always like to ask, what are three things about your area, that's algae, so about these types of algae that people don't understand, that you want to get across to them?

Catharine: Well, we actually kinda covered a lot of it, but first, that it is the oldest food in the world. It's the oldest food in the world. I mean, it survived how many Ice Ages, and it's still here. You have to ask yourself, there's gotta be something special about this stuff. I mean, think of all the dinosaurs that got eliminated, and

entire species have been eliminated over the course of the billions and billions of years, and humans, we've only been here for 800 million years. Algae's been here for 4 billion, so, I truly think there's something magical about this, and I am gonna just keep working on it, so, you just have to, it just makes you think, "My god, there's gotta be something here." And then you look at the nutritional profile and it's a rock star, I mean, it really should have a star on the Hollywood Fame, for nutritional purposes.

So the fact that it's the oldest, and that it's also the easiest, the easiest way for you to get your nutrition. You don't have to carry them anywhere, we ship directly to you, you don't have to clean them, you don't have to cook them, nothing, just open your mouth and you're done. I mean, it doesn't get...either that or breathing, that's about as simple as it gets. So, that's number one. Number two, as I mentioned, the spirulina algae, I was stunned when I found out that its nutritional profile is virtually identical to mother's milk, and this is...I had my aha moment when I...because I had read years and years ago about spirulina being the only thing that would keep these babies alive, if they couldn't digest mother's milk. And I kept thinking, "Why is that?" And it's...normally they have the same amino acids, it's in the same proportions as mother's milk, and then you have all that GLA. So, you have to again, say to yourself, "Gosh, Mother Nature is pretty clever, she knows what the babies need to stay healthy." And what the babies need to be healthy is what we need, as well, except you can't really go to a pregnant mother and ask her if you can spend some time with her child, getting her access to her, her nurturing milk.

So spirulina is your next best shot. And I can...Katie, I can send you the charts that show you the difference, the comparison between the mother's milk and the spirulina, so you can see, because I found it in a book. It was from the 1930s, and I looked at the nutrition...the nutrient profile, or the amino acid profile, and I thought, "Gosh, that looks awfully familiar." And then, sure enough, I matched it up with our spirulina and almost one for one it was exactly the same. And I guess the third thing was, you know, I've talked about chlorella, and how healthy it is, and how it heals the cell wall, but what people probably don't know is that the chemical composition of chlorophyll, and of course, chlorella algae has the most chlorophyll in the world, a thousand times more than greens, chlorophyll, the chemical composition is virtually identical to your human blood, the hemoglobin. The only difference is one little atom in the middle of the hemoglobin, it's iron, and chlorophyll is magnesium. But other than that the entire chemical composition is exactly the same.

And I tell people, you know, "If it wasn't for that little iron atom in the middle of the hemoglobin, our blood would be green, literally." It's exactly the same. And so you have to say to yourself, "Okay, there's gotta be something healing about that." Because if it's exactly the same as our blood, I mean really, it's gotta be doing some great things, and to emphasize how great it is, during World War I, I read that if they ran out of blood for transfusions for the injured, they used to give them liquid chlorophyll, because it would help them heal just as fast as a blood transfusion, and they also used to use it on the...topically, on injuries, because it kills bacteria. Pretty cool, huh? So, if you are out somewhere, and you don't have any Neosporin or whatever, and you cut yourself, just get some of your algae and crush it up, and put it on that cut, and you'll kill the bacteria. So, it's pretty amazing stuff, and the other key thing to remember is that, this is just...this is unaltered, unprocessed, this is a whole food, so it's straight from nature as long as it's grown carefully, and cleanly like ours is. I call it intelligent food because it knows what to do in your body, and you have to be intelligent to take it.

Katie: That's awesome, and can you actually walk us through, so if someone decides to check it out and they land on your website, for sure, make sure if you do, to use the code wellnessmama to get 20% off, but take us through the different ones, because there's several different options, so like, who should use what, and how do they figure out which one's best for them?

Catharine: Exactly. So, ENERGYbits is our spirulina, and we called it ENERGYbits because it gives you energy mentally and physically, and I'll tell you a funny story. So I started as I mentioned, my...I started the company just to help my sister, and then I just kept going, so women's health is particularly important to me. And after the first couple years, I noticed that women weren't buying my ENERGYbits, and I asked my friends, "Why do you think that is?" Or, "What should I do?" Because I wanna help women, and they said, "Well, it's the color, it's blue, and it doesn't have a cool name. You need to make it pink and give it a cute name." So I thought, "Okay, I can do that. Whatever it takes to get women to take this because it's so good for you."

So I made a second version of spirulina, and I called it SKINNYbits and made it pink. So you'll find ENERGYbits and SKINNYbits on our website, they're absolutely identical, we market SKINNYbits for skin and hair health, and for general fitness, but I can assure you they're exactly the same product. It's just that it's a little more girly, and I'm a bit girly myself, so, I'm really happy to...that we have an option. I want women to be a little giddy about pulling something out of the handbag that's so good for them, but also, it's cute and pretty. So, that's the two spirulina.

The other algae we talked about is chlorella, and we call ours RECOVERYbits, because it helps you recover your health. You recover from injury, it protects you from colds, it will hopefully prevent colds, and also it's green. The packaging is green because it's a green algae. It came after spirulina, which is a blue-green algae, and that packaging is blue. So that's...I have people say, "Oh, I'd like to get two bags of blue and one of green." So, spirulina is a blue-green algae and it comes in blue packaging, and pink, and chlorella is the health and wellness algae that pulls out toxins and helps you recover your health, and that's the green packaging. And, we generally try to encourage people to buy them separately, because you have more control, maybe you're gonna go on a run, so you want more energy, so you can double up on your ENERGYbits. But if you can only purchase one bag and you want to get a little bit of both benefits, we do have an option for you, we call it VITALITYbits, and it's kind of a dark pink almost a red color bag, and it's 50% chlorella, and 50% spirulina, so you're getting a little of energy, and a little bit of the immune support. And we actually generally recommend VITALITYbits to someone who's older, because it simplifies their life, they get a little bit of everything, and again, either one, or both of them, any of the algae, are sufficient in terms of their nutrients, to help you eliminate all of those other supplements and vitamins. So, it makes it really simple if you have the VITALITYbits because it's just one algae, you take, you know, your 30 every day, and you're pretty much good to go. So those are the four, there's four products, but just two algae, just spirulina and chlorella, those are the only ones. And we have tons of science, but there's a fair amount of information on the website.

Katie: Yeah, that's true. Any questions that we missed they can probably find an answer on your website, because you guys do have quite a bit of information there as well. I will say too, what I've noticed, because they're very small tablets, they're not huge, so even my kids, who don't like the taste as much, they can swallow them, even when they're pretty young, kids can learn how to swallow them. So, just as an encouragement to moms, especially if you've got kids who are more picky, it's an easy way to just at least get some nutrients into them.

Catharine: Yeah, and they're about the size of baby aspirin, and you know, if you can't take 30, take 10, and then wait a few minutes and take another 10. Also, especially RECOVERYbits, I use them as a salad garnish, I sometimes put them on tops of a yogurt, we mix them with nuts. Oh, and if you want a taste sensation, get some macadamia nuts, and mix them, especially with the RECOVERYbits, and if you really want to add some jazz, add some dark chocolate. Dark chocolate, macadamia nuts, and RECOVERYbits is off the charts, so

fantastic that we're actually gonna launch another product if not this year next year, and we're gonna call them Mac-n-bits. It's gonna be macadamia nuts and the RECOVERYbits, because they taste like potato chips when they're together, it's unbelievable. So, put them in a trail mix, we have hikers that take them with them on trips to Nepal, because it gives...they're lightweight, and they give them the energy that they need. So they're very portable, they never, ever go bad, so yeah, you can take them anywhere you want, no cooking, but yeah, they're terrific stuff.

Katie: Yeah, for sure, I do travel with them now, because I feel like if I can travel with that, and sardines, and some nuts, and then add in things like olives and vegetables, even if there's not great food options, you can usually at least find some decent vegetables, that's kind of how I survive when I'm in a not great food environment. They're easy to travel with, so. I know we're getting close to the end of our time, and of course, all these links will be in the show notes if anyone wants to find it, or again, it's energybits.com and they can use the code `wellnessmama` directly there. But Catharine, thanks so much for your time and for being here, I think this is an important topic, and I love that you're out there spreading the word.

Catharine: Thank you, thank you so much. Thanks, Katie. And we're also available to answer any questions, you can just contact [customercare@energybits](mailto:customercare@energybits.com), but energybits.com is the main website. We're here for you, we just want people to be healthy naturally, that's all.

Katie: So awesome, and thanks to all of you for listening, and I hope to see you next time, on "The Healthy Moms podcast."

If you're enjoying these interviews, would you please take two minutes to leave a rating or review on iTunes for me? Doing this helps more people to find the podcast, which means even more moms and families could benefit from the information. I really appreciate your time, and thanks as always for listening.