"Here's Why Fish/Algae Oil Supplements Are A Scam" - Interview w/ Geoff Palmer Transcript

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Omega-3 Basics and Essential Fatty Acids

I hate this, but vegans get scared into thinking that animal products are better and then find a substitute. >> It's crazy. >> It causes cancer, causes heart attacks, it causes stroke, it increases diabetes risk. Why are we still stuck on this outdated idea? You are saying that the DHA industry is a scam and we do not need to take it. Is that correct?

Are you ready to blow the lid on the fishing industry as well as potentially the algae oil supplement industry, too? Are they really a scam? Let's scrutinize. First and foremost, which omegas are essential? So, there are only two essential fatty acids. That is omega-3, ALA, which only is made in novo by plants and some microorganisms, like fungi. But animals cannot make ALA, period. That's why it's called essential. The term essential comes from the fact that the human body cannot make it at all or in sufficient amounts, so that we must get it from our diet. It's essential for us to get it from outside of our body cuz our body can't make it. So, there are only two. It's ALA omega-3 and LA omega-6. And so, I guess within the plant-based community, there's this conversation around ALA converting to DHA. Most people acknowledge and accept that it does convert. Some people, however, say it doesn't convert enough and so, we need to supplement. So, I guess the question is does ALA convert to DHA efficiently and sufficiently? So, the conversion rate was based on the assumption from the omega-3 blood test. So, they thought we measure only 1% of ALA being converted in the blood. That much is true. Yeah, that's been done over and over countless times. What do you mean? Let's just break that down.

What do you mean 1%? >> So, ALA is converted at a ratio of about 1%. So, about 1% of ALA is converted to DHA in the So, you need to flood the system with ALA. Is this why people think like you need loads of flax seeds and nuts because of that or is that just another form of misinformation cuz you don't actually need that much, do you? You don't because one, the red blood cell is not the proper place to measure DHA. Two, it's not the right form of DHA that the brain actually uses and the brain actually incorporates into its tissue. So, the form of DHA that you consume in fish oil or algae oil is triglyceride form of DHA. This is what you get in supplements.

This is what you get in animal foods like fish, meat or dairy. It's a triglyceride bound form. So, that actually has to be converted. Red blood cells will soak that up cuz they can actually use that. The brain can't use it at all.

ALA Conversion and DHA Misconceptions

There's a great BDNF study that showed the brain didn't use DHA almost at all. The graph is like this. This is tag DHA. This is LPC DHA. It was completely vertical. So, the brain's using a different form of DHA and our body doesn't convert ALA to DHA in the blood. Why does it not do that? Many different great reasons. DHA is a long chain of carbons. When it has double bonds, oxygen can bind to that. So, DHA oxidizes rapidly and strongly. That means most of the DHA most people are taking in a supplement form is already oxidized. It's rancid oil. Now, that would be bad enough, but that oxidation DHA bumps up against LDL cholesterol in our blood and now the LDL cholesterol is oxidized. We know DHA increases oxidized LDL cholesterol. LDL cholesterol does not cause heart attacks. Does not cause placking. Oxidized LDL cholesterol does.

That's when it enters into our endothelial lining, forms plaques, and causes heart attacks, strokes, and hypertension. So, taking this DHA can increase LDL cholesterol in the blood. We know that. Even algae DHA increases LDL cholesterol. Just 700 mg of DHA in its preformed state introduced into our bloodstream increases LDL by 7%. I actually had a guy taking algae DHA that was vegan, and he said, "I can't get my cholesterol down." I said, "Are you taking algae DHA?" He said, "Yeah." I said, "Stop it, and let me know what happens." And he goes, "My LDL dropped like a rock." And I said, "Yeah, that's cuz you were forcing it to increase LDL cholesterol." So, algae is one form of DHA. Are there any other forms? And just to be really, really clear, you are saying that the DHA industry is a scam, and we do not need to take it. Is that correct? 100%. What are the sources then of DHA?

So, let's go through these industries one by one. Algae, what else? Plants do not make DHA, period. There are a few plants that can make EPA, but no DHA. Algae is not a plant. Most people think it's a plant. It is not. It's more in the fungi and protista kingdom. And then animals make DHA. So, it's interesting that two omegas, omega-3 and omega-6, that our body controls tightly are DHA and arachidonic acid. Plants do not make either one of those. They make precursors. They make ALA and LA, which can convert down to arachidonic acid and DHA. But our body regulates how much conversion happens, and it does so through a step-by-step enzyme process. Most people do not understand that there are six major forms of omega-3. There's actually more than that, but six major forms of omega-3. ALA, which is made by plants, it's the only essential fatty acid at the top. Then it converts down to SDA or stearidonic acid. That's made by some plants like hemp or ahiflower. And then ETA, then EPA. Now, EPA is the first one that most people will probably recognize. That's used by the heart, great for improving cardiovascular health. And then DPA, which is highest in mother's milk because it's the direct precursor to the following one down at the bottom, DHA. Now, this pathway is unidirectional. It means it goes only one way. So, ALA can make all five of the other forms, SDA, ETA, EPA, DPA, DHA. If you take DHA, that's all you get. DHA can't make any of the other forms. So, all you're getting is DHA. Why would you not take the first one, which can give you all six forms, instead take the bottom one, which only gives you DHA? And that's the reason it's at the bottom is because we need it the least. If we needed it the most, it would be higher on the conversion rate.

>> Basically, the message is it's a scam. And so, what do you think then the the people that are saying that ALA can't efficiently convert? Just in a nutshell, why can ALA not convert efficiently enough to DHA? That's just patently false. It does. It always has. They made that assumption because they looked at only the blood.

Why DHA Supplements Are Criticized

They have only used red blood cell data to say, "Oh, you're too low in ALA conversion." Look, ALA goes to the liver. There it's converted to LPC-DHA. This does not show up in the bloodstream. So, all of this conversion of ALA, which is six to 10 times the amount that's converted in the blood does not show up in blood tests, period. The amount that's in the brain is about 3%. The amount that's in fat is another 4 or 5%. All of this does not show up in the blood. So, about 90% or more of the conversion of ALA is not present in a blood cell blood cell test. That's why it's so terribly wrong.

>> Sorry, I feel going to have to repeat yourself, but I feel like if I'm thinking this then other people will. So, I just think of the equation as ALA from plants goes to DHA. What is EPA? Can you just describe that? Is that in supplement form? Is that in food form? And is it dangerous to to consume either whole food or refined processed supplement form?

>> Yes. So, again, there are six forms of omega-3, not just EPA and DHA. Those are only two out of the six. Our body uses all six. It uses ALA. It uses SDA. It uses ETA. Then it converts to EPA. So, it's a conversion. Between each one of those conversion steps is an enzyme. The first one's called delta-6 desaturase.

It's an enzyme that converts ALA down to the next step, which is SDA. Then another enzyme converts it down. And another enzyme converts down and down and down and down the conversion goes to finally DHA. Our body, through epigenetics, it turns on a gene and produces more of that enzyme. And then you get more conversion of that. And if you introduce DHA in a preformed state, our body says, "Oh, we've already made enough. Let's turn off those enzymes." And it slows down or even stops the conversion rate. So, I'm seeing vegans get scared that they're not getting enough DHA. With 98% of their omega-3 is coming from ALA. I mean to say, that's what they're consuming on a daily basis. Then they take DHA and the body is tricked into thinking it made that DHA and since that's our physiology, it says, "Oh, wait, that's too much. Stop converting." So, 99% of your omega-3 intake all of a sudden stops converting or converts at a really low basis. Well, that's what we see in those who eat fish or consume omega-3 supplements. Their conversion rates are really, really low and the vast majority of people were standard American diets. Everybody in the original fish oil studies were standard American diets. They were consuming preformed DHA. This tricks the body into thinking, "Oh, I've got too much. I've got too enough. Shut down the conversion rate." So, they said, "Well, what about the opposite?" So, back in 2010, the EPIC Norfolk study said, "Well, let's look at that. Is there a difference in conversion rates between vegans and non-vegans and fish eaters, right?" And they found that vegans have the highest conversion rates. So, they said, "The best way to increase your conversion rate is to not consume DHA." What do you think is worse? Is it DHA supplement algae or

fish oil? Actually, they're bioidentical. So, same negative effects for both. Algae increases AFib just like fish oil does. Algae increases oxidation of the blood just like fish oil does. Algae increases LDL cholesterol just like fish oil does. No improvement. I hate this that vegans get scared into thinking that animal products are better and then find a substitute. It's like putting heme iron in the Impossible Burgers. I'm like, "Heme iron? No one should be taking heme iron. It causes cancer. It causes heart attacks. It causes stroke. It increases diabetes risk." And then we're copying the bad habits, the bad nutrition of animal products. It's crazy. So, we You need to stay away from from both.

Obviously, from an ethical standpoint, ecologically, obviously, fish industry is like the worst, right? But you're saying from a health standpoint, they're pretty much identical. >> Identical. DHA is DHA is DHA. Now, the forms of DHA are different.

Plant-Based Omega Pathways and Health Effects

Once it's in the liver, it becomes LPC DHA, doesn't cause the harm that we see does it. This is exactly why the plants have it right. Do a precursor so that the body can convert it in the right place, in the tissues, in the brain, in the fat, in the liver, where it can be safely converted to a form that doesn't harm our health. You don't want it in its free animal form or free algae form cuz that can harm our health. That our body decide where to convert it, what tissues to convert it, how much to convert, and keep those under tight regulation. It's a a really interesting study they did on dolphins, and they found that dolphins consume 165 times more DHA than humans, but their blood levels are not much different. Why? Because their body is already adapted to shuttling that DHA out of the bloodstream as fast as it possibly can so it doesn't even show up. Now, human beings are overriding that thinking we know better. Oh, I got to take DHA, so let me dump a whole bunch of DHA in my bloodstream. But we've never consumed that high amounts of DHA except in a few populations like the Inuits that relied on fish, but look at them. Their Inuit populations were dying at 35 years of age. I wouldn't say that that's a healthy path to be going. Their bodies also shuttled that DHA to outside the body fat, to subcutaneous fat to use it on a daily basis in a very small amounts. Our bodies are not adapted to that in warmer climates. Doesn't the fishing industry supplement fish with algae supplements? Yes. If you fish farm, the DHA levels go way down. So if you've got farmed fish, fish grown in farms rather than the open sea, the DHA levels drop significantly. So, they actually have to feed the fish additional DHA. So, they're catching sardines to feed the bigger fish that they're farming in order to feed humans.

That's like three levels of ridiculousness rather than just getting it from the plants, the ALA, which is a renewable resource. Fish in the ocean are not a renewable resource as much as they we like to think so. We've already depleted over 50% of the entire species of all aquatic animals, 70% of fresh water. And 90% of large fish is a statistic that I saw. The ones that humans eat, it's 90 to completely gone in some species. Yeah, it's crazy. So, okay, you're basically saying say no to DHA supplements, say no to fish oil, algae, just stick with plants. Who has been responsible for putting out this misinformation or propagating this silence? People who haven't read the research that I have and it's amazing research that is coming out of the University of Toronto. Two of the professors there, Dr. Adam Metherel and Dr. Richard Bazinet, are leading the charge. They have developed a whole new method of tracing what happens to the ALA when it goes into our body, what tissues it goes into the body, where the conversion is at. This method just totally blows away the omega-3 index blood test, making it worthless for vegans and very inaccurate for everybody else. Dr. Ella Baker is another researcher that is leading charge. I don't want to name names of people who are propagating the myths. Many of you probably already know who they are, but Dr. Milton Mills, Dr. Tim Radak, one of my favorite researchers on omega nutrition, professor, university professor, teaches this omega-3 nutrition, watch his videos. They're incredible. He's not been getting much press. He's not an influencer. He's a science guy. He's a true omega researcher. But Dr. Ella Baker, Dr. Richard Bazinet, Dr. Adam Methrol, Dr.

Tim Radeck all understand this. On the vegan side, Dr. Frank Sabatino, Dr. Milton Mills all aware of this research, all in firmly in this camp of this understanding. Look, the plants have always had it right. It didn't make sense to me 40 years ago when I went vegan to say, "Oh, everything is about a plant-based diet is health promoting. All the fiber, all the phytonutrients, all the, you know, everything is healthier for you except omega-3. All of the essential amino acids are made by plants. All of the essential fatty acids are made by plants. Animals don't make either of them. Why are we still stuck on this outdated idea that somehow we've got to get these converted nutrients that are converted by other animals when our body converts them just like those animals? You can't [clears throat] preform

EPA and DHA from a cow. Where does a cow get EPA and DHA? By converting ALA in the grass that it eats all day long. That's how the EPA and DHA show up in the milk, show up in the meat. That's how it happens. >> Where do carnivores get their omegas from? Yeah, so carnivores have lost the ability. Fish, which carnivore fish, there's some plant eating fish, and carnivore animals, land animals, get their omega-3s from other animals, which means EPA and DHA. So, their body doesn't even use ALA SDA or ETA at all. They don't have the enzymes to convert those. They can't use them. So, they just get burned up as fat calories. They only use EPA, DPA, and DHA, the bottom three. So, scientists said, "Well, if that's the case, are those first three forms of omega even important?" So, it was a powerful study done to look at just that. It's called the Determinants of Fluid Intelligence and Healthy Aging. So, this study showed that consuming the highest amounts of ALA, SDA, and ETA had higher fluid intelligence, and catch this, greater gray brain matter preservation.

B12, Soil, and Closing Remarks

Gray brain matter, that's the processing brain part of the brain. That's all where we do all our thinking. So, better preservation of our brain. That's less brain shrinkage when we consume the first three, ALA, SDA, and ETA. And guess what? EPA and DHA cannot give you any of that. They even looked at that and found that people taking EPA and DHA had zero SDA and ETA in their bloodstream.

It wasn't there. So, this can only be gotten by plants providing the precursor ALA or SDA as in ahiflower. This is important. I personally want more more of my brain when I'm older. I'm 63 now, and higher fluid intelligence. Yeah, I think that's important. And this is done by ALA, not by EPA or DHA.

>> Is it true that high quantities of DHA in the blood correlate with and correspond to high rates of cancer, specifically prostate cancer? That is correct. Up to 71% increased risk for prostate cancer death. Not just getting prostate cancer, dying from it. Why is that? Remember the membrane fluidity? Prostate has membranes, too. And when you increase the fluidity by having high amounts of DHA in the bloodstream, it negatively impacts the prostate. The prostate then starts allowing in hormones that it would normally be able to block, including DHT and estrogen, which both are linked causally to prostate cancer. So, what you're doing is making the prostate more susceptible to the things that causes cancer and kills people by accelerating that path. It's throughout. ALA and EPA decrease LDL cholesterol.

They increase cardiovascular health. They decrease the risk for diabetes. DHA does not decrease the risk for diabetes. Does not decrease the risk for dementia.

ALA increases your body's protective effects against early onset dementia than DHA does. DHA is structural for the brain. Yes, it's important for our structure, but once we have our brain built, we only need a tiny little bit to repair the the damaged parts of the cells. That's all we need. It's like bones. And it's interesting, we have about 4,000 mg of DHA in our brain, right? 4 g of it. But we only need 4 mg a day just to repair and patch the damaged stuff. Same with the bones. The bones have about 4,000 g of calcium stored in our bones, but we only need about 1,000. So the same ratio, 1,000 to 1, basically, is what we have. So just because calcium is important for bones doesn't mean we need 40 g of calcium a day. That would end up causing heart attacks. Same with DHA. When we put too much DHA, we cause heart attacks, atrial fibrillation, stroke, the disease states, higher risk for cancer, higher risk for diabetes. DHA, it's a really important thing, but in the right amounts. Let our body decide what the right amounts are, not just us arbitrarily sticking in these huge amounts and saying, "Okay, body, deal with it." That's not the way to work with our physiology. And that's not the way it is in our diets. In our diets, it's almost all ALA. Then our body says, "Okay, a precursor. I can store ALA in my fat and convert it to DHA only when I need it, only in the amounts that I need it, only in the tissues that needs it, only in the form of DHA that the brain needs. This is how our body regulates the entire process and we're just dumping this whole bunch of DHA in the wrong form, in the wrong amount, in the wrong place into the bloodstream where it can hurt the heart, hurt the blood, do all kinds of damage. It's foolish.

Look, I've read all this research and there are other researchers out there who have read this. I am just dumbfounded why doctors, practitioners still continue to preach, "Oh, but you better take your DHA." It's just wrong.

Yeah, they're just not educated, are they? And I think maybe there's an issue because there's so many more

pressing issues at play with nutrition. You know, the debate on saturated fat. For vegans, maybe you know, B12 is more of an issue.

So, it's kind of like a secondary topic and so people don't really scrutinize it. >> B12 is is is similar. That's the other major nutrient that everybody says it's it's not found in plants, which is also false. B12 is found in plants. It's found in a lot of plants grown in nature. We have studies that show that. Just Google it. B12 in wild plants and you'll see. Yeah, they have plenty. Now, the problem with B12 is not that plants can't provide B12. They can. It's the soil. B12 bacteria in the soil can get absorbed and even live inside of plants called enteric B12 producers. There's these pink forms of bacteria that actually get absorbed to the roots of plants and can form B12 right inside the plant. So, they said, "All right, well, let's study that. Let's just put some of these bacteria back into the soil where they belong and grow some lettuce in there." So, they did that. The scientists did this in a pilot study and sure enough, just a single serving of lettuce, good old lettuce, a single serving, right? Less than a salad, gave you 200% of your daily value of B12. If the soil had B12 in it. The problem is our modern farming techniques have robbed everything from the soil. Now, there's no B12 bacteria in it. So, the plants cannot absorb B12 cuz it ISN'T IN THE SOIL. YOU CAN'T HAVE B12 in your plants if it's not in the soil. Hey, same with the animals. We have to feed farm-raised, lot-raised cows B12 because they're not grazing. They don't get it from nature. So, it's the same thing.

So, this B12 myth is just garbage, too, just like the DHA myth is garbage. >> [music]