The 3 Essential Fats Your Brain Needs To Thrive Transcript

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Introduction and guest background

Welcome to another episode of the M. S. and autoimmune, interviews. So I'm Doctor Terry Wahls, your host. And let me welcome Sean Stimson. He's the author of the USA national bestsellers Eat Smarter and These Smarter Family cookbook.

These are wonderful, books. And he is the author of Sleep Smarter and the creator of the Model Health Show, a number one podcast. He's a graduate of the University of Missouri, Saint Louis.

He said in business, biology, nutritional science, know, it's really been a force for wellness. He's been featured, in Forbes, Fast Company, New York Times, Muscle Fitness, good Morning America, ESPN, and many, many other media outlets.

Okay, you know, I'm just so glad to always have the opportunity to chat with my very good friend, Shawn Stevenson So let's just have very quickly, what have you been up to most recently that is so interesting to you?

Most recently, I've been doing a lot of work around family connection, human relationships, and the impact that it has on our health outcomes, on our food choices.

And it's it's it's profound, you know, whether we're talking about shifts that take place with our hormones, with our digestive capacity and even our metabolism and how we're processing food.

And all of these things are influenced by our environment and the people that we're around. So that's where I've really been putting a lot of my energy and efforts in getting this word out.

And when I shared people, of course, are just like, it makes sense. Yes. As we evolved eating together, you know, so we we do clinical research, and diet and lifestyle from us.

Family connection and health outcomes

And one of the surveys that we included was the social support for your eating experiences. And what we saw was if your family and friends, are negative, you know, are not supportive.

So they're eating the wrong foods and telling you it's the wrong foods that is incredibly destructive. Yeah. Yeah, it is destructive. So we're we're influenced by our environment.

We are you know, humans are product of our environment. We've heard that many times. But we're also and this is the rub, we're also a creator of our environment, a conscious creator.

Yeah. So talking about the shifts that support the health outcomes that we want. So, you know, I talk about this in my clinical trials that family interventions are the most successful.

And I talk about this with my clinical practice a family interventions the most successful. And we sort of help guide that conversation so that people can have a respectful negotiation with the family unit, what this new environment is going to look like.

So do you have some tips to our listeners on how you would approach those conversations? This is like the biggest question, especially people have a family and kids.

It can be Uber complicated because everybody has their own agenda. They have their own personality, they have their own temperament, they have their own likes and dislikes.

And the real secret that shouldn't be a secret. If I could just encapsulate into one thing, is paying attention, you know, paying attention to the person you know, each of our family members, we know what motivates them.

We also know what motivates them and what we tend to do, especially, again, if we're flustered and we're busy and we've got all these things going on in our lives today more than ever, it's difficult to have the bandwidth to pay attention to those things because we want everybody just to fall in line is do what I say.

This is good for you. I've got you, you know, in a lot. It's of course, like, you know, we we, we know we're doing a lot of the time. But today, like I said, more than ever, we're distracted and it's pulling so much of our mental energy.

And we know that this is a real phenomenon. You know, we have a certain capacity, a mental reserve of energy each day. And if we can just start to cultivate a little bit more time and energy for ourselves, this is the key.

And so the secret that shouldn't be a secret is pouring into our own cup and making sure that we're not getting drained by life every day, and having so little to pay attention to our families and to be able to address and to cater things just a little bit to each person.

It might be just a couple of words. It might be, shoulder the rub, it might be asking a question that's going to make everything cohesive and also take in everybody's temperament and their likes and dislikes into account in the family set up.

You know, so one of my kids really loves to know what the plan is in advance. If he knows he's all for it. He doesn't like surprises, though. He doesn't like adjustments. Last minute.

All right. My other son, he doesn't care on a whim. He loves if you change things up like, hey, hey, do you want to go? He loves that, you know? So I got to take both of these personalities into account, and we can.

This is the superpower we have as parents is that we know our child better than anyone. But again, we get into this conflict because we try to fight them and force them to change it to be how we want them to be in the moment.

Same thing in our relationships, you know, with our significant other, you know, and so the solution is attention. Just taking the time to pay attention to the person in the moment.

Just look at them, listen to their song, the sound of their voice. Pay attention, get connected because it's going to make everything else more graceful.

And of course, I've got a bunch of tactics on the environment, how to set things up and all those kind of things. But at the heart of it, that's that's really one thing.

Well, let's get a little more specific on the brain because this is the Emma summit. So when we think about the brain, the brains go out of fat on it.

Do you have opinions about the kinds of thoughts that we should be really attending to in our diet? Well, the connection between the brain and our nutrition is one of the most intimate and powerful relationships in our universe.

And even as I'm saying this, this reminds me of a quote from Michio Kaku, who's, you know, astrophysicists, you know, modern day Einstein. And he said that the human brain is the most complicated object in the known universe.

That is quite a statement. And the human brain is made of it's made from the food that we eat. And this can be lost on a lot of very smart people as well.

How to navigate family conversations

And so if we're talking about the actual physical construct of the brain, yes. And also the energy that the brain is running on is coming from the food that we eat.

This is of top tier importance. But, you know, even again, having a conventional education, going to a conventional university, you know, the both of us, we're not taught that connection, that what you're eating is a literally creating the physical structure of your brain, and also the energy that your brain is running on.

And so the human brain is a very, very hungry organ. It's like 2% of our body's mass, but it is consuming upwards of 20 to 25% of our caloric intake. It is just gobbling up as much as it can, especially glucose available.

So there's a recent study that was published finding that the brain will gladly confiscate up to 50% of the glucose in any given meal. And this is one of those things where the brain, you know, humans, we evolved in a certain environment that didn't have a lot of access to a lot of sugar or glucose and very like readily available sources.

And so any chance that we had that the brain had to confiscate and gobble that up, it would. Today we live in a very different environment where there are ungodly amounts of brain of glucose that can get sold into the brain.

And I know you've already probably talked about this quite a bit, but we're seeing this phenomenon of insulin resistance. Yeah. So think about I think our listeners may have heard our brain is thrilled to have sugar.

So therefore it must be okay for me to eat all these carbs and all these liquid, sugary beverages because my brain's going to eat all that sugar up. Yep. So we have this.

Is that not such a good idea? Well, we have this entity, this really cool aspect of human health. We have this blood brain barrier, and there are certain things that have exclusive access to get into the brain.

And one of those, there are gates for sugar. All right. They're like an express toll pass booth. We have those sugar gates that that can allow in copious amounts of sugar.

Now, here's the rub. When you have a bunch of cars passing through in mass and the inability, you know, whether it is, you know, the, the, the construction that's done on the roads, as is getting as everything goes, goes through someplace for all of these cars to go.

Once they go through the toll booth, everything is start to get backed up really quickly and things can start to break down. We can start to get a lot of toxicity, a lot of exhaust.

Right? Because as we're burning that fuel, we're going to have all these metabolic waste products. And one of the things that we're seeing is kind of a hallmark with Alzheimer's and dementia is an inability of the brain to detoxify itself or to clean itself.

You know, we have these really incredible glial cells that are responsible for a lot of the cleanup and the glial cells. A little fun fact they're ten times more active when we're sleeping then when we're awake.

And so our brain does a lot of housekeeping. So today we have chronic epidemics of sleep deprivation as well. The couple it all off. And now to circle this back to the fats and why this matters so much in this conversation.

Well the brain itself, if we're looking at what is the brain made of. The brain is mostly made of water, all right. And it's making up the most volume of the brain, but of the dry weight of the human brain.

By the way, the brain is somewhere in the ballpark of around 70% ish water, right? 70, 75%. And it changes also through our lifespan. But the dry weight of the human brain is mostly fat, right.

And then proteins are a pretty close second, and then they're sprinkle in some carbohydrate activity and some minerals and things like that. But it's dietary fats that make up.

And this is the key word structural. The structural fats of the human brain the structural tissues. So structural fats enable things like signal transduction.

Right. So your brain cells can talk to each other which is kind of important. But let's dig in and we'll talk about the three prominent fast that make up the human brain, if that's okay.

Yeah. Let's keep going. This is good. All right. So number one would be and this isn't any particular order by the but number one is phospholipids. All right. Phospholipids.

And this is a very specific category of fats that are present throughout our entire body, but more so inside of our brain. And these help to give our brain our brain cells size, shape, strength, elasticity.

These are all critical factors for our brain. There's this capacity of the human brain is called plasticity. Rates for our brain cells to adapt and to continue to change as we adapt and continue to change.

Phospholipids are critical in that capability. And something really interesting is that phospholipids are mostly made out of omega threes, DHEA and EPA.

All right. So this goes back to something that again, I'm sure this has been talked about a lot during this summit. But phospholipids are mostly made out of these omega threes.

But there are certain foods that are very rich in phospholipids.

Brain nutrition and the role of fats

And actually I pulled up a recent study to share with everybody. That thought was really fascinating. We had a great be compelling about these phospholipids.

So this was a recent double blind, placebo controlled clinical trial. And it found that the consumption of phospholipids help to enhance attention and improve reaction times.

When test subjects were placed under stress. All right. So putting them in a stressful conditions these phospholipids help us to be better help us to adapt.

And who isn't getting hit by stress today. All right. So and here's the the end of the study. They found that participants also reported reduction in anxiety and a heightened sense of mental energy.

All right. So, let me stop for a moment for everybody with M. S., I think there's plenty of reason for us to think that our cell membranes, which really depend on these phospholipids, EPA, DHEA, they're just so critical.

And that because I have a progressive M. S., I'm not as healthy as you are, Sean. So my point of view is my need for phospholipids in the GPA is probably higher than Sean's.

And for everyone who's listening here, if you got a brain issue, we need more of this key nutrients than someone who is healthy and does not have any brain related stuff going on.

And I'll hand it back to you. So where do we get this in our diet? Great question and thank you for that. For that add in. So there are tons of great foods that have rich sources of phospholipids.

This would include fish in particular fatty fish. Again, with the EPA being a major component of making phospholipids. So that's a given. But some others are crab meat salmon Ro or fish eggs.

All right. So caviar as well. This might be the densest source of EPA, and DHEA. And this was according to my friend Lisa mosconi out of NYU about cracking into this list.

By the way, there's a couple of plant foods as well. Oats. Sunflower seeds have a pretty good source, but I'm not talking about DHEA and EPA. I'm just talking about phospholipids, or just to be clear and but cracking into the top of the list is a little a little pod is egg yolks.

Egg yolks are the nominal source of phospholipids. All right. So again phospholipids are made used to make things like fossil title serine fossil title choline all these critical fats for the brain.

So that's and that's number one is phospholipids. I'm going to interrupt for just a moment. So many people know that I myself, I can't tolerate eggs because the egg white will trigger my pain.

And that is true. The egg white can be a source of food allergen or food sensitivity. The yolk. You can get the yolk carefully with the white. It really is a superfood. Absolutely.

Yeah. And of course like there's cool ways you can even take that egg yolk and put it on top of a dish on top of a burger of some sort, or pasta or whatever the case might be.

That's a culinary practice that a lot of, chefs use. And did you have any tips for easily getting the egg yolk with the egg white? Use the shell. All right. That's what I do.

So if you want to. And it's just something about the shell I know is like a magnetic thing. But, you know, I crack the egg into the pan, and you can use the shell to scoop up the egg yolk or crack it.

And then you have the two halves of the shell, and you could kind of go back and forth and let the egg white fall out, and then you'll be left with the egg yolk.

Another technique that can work is if you put your fingers on, raw garlic and rub the raw garlic on it, you can reach down and gently pick up the yolk and separate it that way.

And then you could slap a vampire and take them out for absolutely a two for one. So, you know, a number one we've got phospholipids. Number two would be single lipids.

All right. Single lipids. So single lipids really function as building blocks for our membranes for our the membranes of our neurons. And they play a significant role in signaling and in regulatory roles with ourselves and being able to differentiate.

And so this goes back to something I mentioned earlier of signal transduction and our brain cells being able to talk to each other, you know, the axons and the axon terminals and the dendrites and all this stuff.

But basically being able to send data back and forth to send that, that nerve response, that energy, it's super important to have these single lipids. Now, this is the thing about single lipids is that they've been found to play a huge role deficiency in neurodegenerative diseases.

And so we got several studies on this. And also they play a huge role in brain cancer as well. So deficiencies showing up is higher rates of brain cancer.

So my point being that single lipids have a lot to do with regulation. They have a lot to do with regulation of what our brain cells are doing, how they're functioning, making sure they're in good working order.

And if not getting those cells out of there, cleaning up how, cleaning up the house and making sure that the environment is such that our brain cells can really thrive and some good sources of single lipids are again going back to egg yolks, butter, cream, beef, yogurt.

Rice has a nice amount of single lipids. If we're looking at some plant sources. Sweet potatoes are another interesting source of single lipids. And as I say this though, because we're here at this summit, we have a higher level of thinking with this stuff.

We have to know that all these things are not the same. A single lipid, the make up of a single lipid isn't just one way. You know the same thing. When I was when I was in my university classes, you know, I was taught, you know, make sure you tell people to get all their vitamins and minerals.

So get plenty of, for example, vitamin C, there are multiple forms of vitamin C, there are multiple forms of magnesium, there are multiple forms of B12.

The list goes on and on and on and on. This isn't just one thing. So the plant version is not the same as what you might find in an animal food, and the source from the animal food isn't going to be exactly the same from source to source, right?

Which you get from beef and eggs are going to be slightly different because it is different. Nature is different. That is a different thing. But our bodies can construct and put things together and grab these nutrients and use them.

But we have to provide these raw materials in order for our body to make it in the form that we need. And that's the key. So and this would bring us to number three, and this is where it's gone.

This is where the controversy unfortunately comes in.

Phospholipids and egg yolks for brain health

Number three is cholesterol. Cholesterol. The brain has the highest level of the highest concentration of cholesterol in the human body is in our brain.

All right. So about 20% of our body's total body cholesterol is found in our brain. And about 80% of that is found within the myelin. And here's the thing your brain cholesterol is so important.

Our brains make it our brains make cholesterol. But again, we have to provide the raw materials for our brain to do the job. A tremendous amount of cholesterol is actually synthesized in our brain within the first few weeks of birth.

And this is, again, flying in the face of conventional wisdom that cholesterol is bad for us because this is a major construct of breast milk. And for just a moment, we had so much research about cholesterol and heart disease, and we've had many, many, many, many studies about the benefits of taking cholesterol lowering drugs for heart disease.

Every one of those studies show showed that there was more suicide in more homicides, in the cholesterol lowering agent, whatever the drug was. And for a long time we thought that had to be an artifact, had to be an artifact, had to be an artifact.

But that has been an absolutely consistent observation. So I think that sits in that we overlooked the role of cholesterol in the brain. So I'll hand it back to Sean.

Absolutely. And not just that. Thank you for bringing that up, because I was going to drive there as well if you didn't take me there. We have too many studies now looking at the side effects of this statin epidemic.

You know, this is a multi multi-billion dollar drug class that was presented as a means to reduce our epidemics of heart disease, which it is not done, by the way, of course, the the the the effect is not taking place, but more so we've got a number of studies affirming how, for example, and this is actually reported by the FDA.

And it's a warning now on this drug class that it causes sporadic and sometimes permanent memory loss. Right. So people can have like these moments more frequently where they're losing their memory, short term memory, but also some long term effects to the to the memory.

And that's not an accident when we're tinkering with our body's cholesterol supply. And also we've seen a dramatic increase. One recent study found about a 30% increase in the incidence of developing type two diabetes.

When someone's placed on a statin. All right. So we've got to look at all the different roles. Muscle loss all right associated with SAT and intake. The list goes on and on and on.

What we what we're hearing what I'm talking about. It sounds like accelerated aging. That's really what it sounds like. And so not to say that there isn't a place potentially some small places where this is appropriate, but to really hone in this point with why cholesterol matters, as I mentioned, it's a major part of the myelin, which provides insulation for the axons and for signal transduction for nerve communication.

And just being able to to automate things is so important. And this increases the speed potentially of those electrical impulses. And you can speak to this for sure.

So not going to ask because I'm sure many of our listeners are looking at their, lipid values like, well, you know, I've been told that it should be, you know, lowest good.

It should be below 200. And, you know, maybe I'm a little bit over my my medical team is trying to convince me to, change my diet. Maybe think about meds.

Do you have opinions about what is, from your point of view, the optimal cholesterol for your brain? All right, so just to be clear, we are not in a place where we are able to monitor the cholesterol ratio in the brain itself.

All right. And so if we're looking, you know, doing a blood pan or whatever the case might be, your brain is in a way, its own microcosm, its own universe.

Single lipids and membrane signaling

And it does exist, of course, like everything is connected, but the brain is so protective, we can't just go and take a sample from our brain very easily.

And so I want to keep that in mind. And again, that the brain is making its own cholesterol, especially after again after our phase, you know, being an infant and really sopping up a lot of cholesterol, just giving, getting driven to the into the brain in droves.

And also, by the way, to close off that point I mentioned earlier when we're not getting enough cholesterol in those early stages, that's setting the template for and we've we know this now, a myriad of neuro, neurodegeneration, early onset also abnormalities in brain development and learning and all these things for our kids.

So it's super important. So with that said, these gates for cholesterol start to close. We don't have as many of those like like it does for glucose. And so our whole body cholesterol that we're monitored monitoring isn't really our whole body cholesterol.

Sure. And if I was to give a ratio, what that looks like on kind of conventional blood work is very tough because you've got to look at your, you know, your unique metabolic fingerprint that you have because some people just genetically have higher cholesterol and they're super healthy.

You know, they might be, you know, folks that reside in some of these glorified blue zones. But the problem is the context. The context is the issue. And so we're looking at a cholesterol, very superficial cholesterol number.

Right. Our LDL for example, low density lipoprotein. Now when I just said that low density lipoprotein I didn't say cholesterol because it's not cholesterol.

It's not cholesterol, it's not cholesterol. It's a carrier. High density lipoprotein. It's a carrier. It's not cholesterol. All right. Cholesterol has been villainized.

But neither of these carriers are cholesterol itself. All right. So that's something to kind of check off the list. But also what makes it potentially concerning is the is the particle size for example of the LDL.

Right. So and today we have a plethora of tests where we can find out the particle size. But our physicians unfortunately, even if they wanted to, the makeup of the insurance paradigm today makes it very difficult for your doctor to order more advanced testing because they're going to come back to your doctor like, hey, why don't you do this?

If you keep running these tests, that's costing us extra money. We're going to we're going to pull this insurance, you know, and so because you have to abide by standard of care.

So what do you do? There are tons of services today where you can get your own blood work done and be able to to work with, a reputable service physician practitioner who can help you to understand your blood work and what it's saying.

Ways to well, is one, I just talked with Brigham Buehler, the founder of that, a couple days ago, and he worked in the pharmaceutical industry for many, many years.

He saw all the chaos and the madness, and he wanted to provide a service to where people can get access to their own blood work without, you know, get having to go through their doctor who can't even order if you really comprehensive test.

So yes, your LDL matters, but not in the way that you think. So we want to look at the particle size. We want to look at oxidation. Right. We want to be able to because it paints a picture. Right.

So what are your triglycerides look like an association to that.

Cholesterol, statins, and brain function

Your inflammatory biomarkers C-reactive protein homocysteine any of these numbers in isolation is a problem. If you just look at your total cholesterol in isolation, it does not tell you much of anything because it's not within context.

It's not within context. If your inflammatory biomarkers that one thing are very, very low and you maybe have, you know, higher LDL outside of this, you know, standard mean, chances are you are going to your super healthy, you're going to be just fine.

You have great cardiovascular health, but that's just one marker of 100. So, for all the listeners, this is, really very important, message that the standard, lipid value that you're getting from your primary care person doesn't have the richness of the detail that can tell you, do you have, concerns for heart disease?

And so we'd make some tweaks, in what is your overall health? And you mentioned, quickly one way to get this kind of test, directly in that compare again was ways to, well, so ways in the number two.

Well ways to well okay. That's just one. There's, there are several that are, that are gaining a lot of traction right now. I think the more we understand that getting this information so that and this is going to be a cash out of pocket to have this deeper conversation, I could get the report, and then I probably going to have to look for some physician, nurse practitioner, physician assistant who could help me know, like, okay, given these findings, what are what are the best next steps yet?

So this is the great thing about a company like that is that they'll have practitioners who will do physician notes for you, but also this is going to another kind of potentially easier onramp would be finding an integrative physician, functional medicine doctor who's aware of more advanced testings.

And it might be an out-of-pocket expense. But here's the crazy thing about the insurance paradigm. So often paying out of pocket is less expensive than what your copay would be, and you don't even know it because there's a gag clause with the pharmacy, with the pharmacies, for example, you're getting medication.

You know, they might cost you $2 if you paid out of pocket, but they have to charge you $10 because your insurance card pops up and they can't tell you, hey, if you pay two, you can just take it for cash, but you got to pay this copay if if you know, if you have the insurance pop up.

And so with that being said, it might be an out of pocket expense, but just going to a physician or practitioner who does more advanced testing and just looking up in your local area, doing a little Google and looking up integrative physician, you know, in whatever your city might be and just doing a little bit of homework.

And that's what this is really all about, because we do so much more homework to refinish our, our house or to plan a vacation or, you know, whatever the case might be to do online shopping.

You know, my wife keeps stuff in the cart. She keeps stuff in the cart. I'm like, why don't you just buy, like, get the stuff? She's like, I need to think about it.

But then we'll just go with the first position that our insurance pulls up, you know, in, like, we've got to do better. We got to do our homework because this is important decision who you're working with and who your coaches, you know, as far as your health is concerned, because and I said that word very specifically because our health is our responsibility.

First and foremost, we are the most important player. We live in our bodies and we know more about what's going on here than anybody else because we live here.

But a lot of times we're pulled away. We're not listening. We've been desensitized to our body's feedback, and so having a great coach and people to work along with you is super important today.

You know, and as you are looking for your coach, your medical coach, look for someone you can think about, am I looking for somebody who has a lot of nutritional insights?

I'm looking for someone who could, help me, master. Improving my nutritional status, assessing my nutritional status. It might be a physician. It might be, a, nurse practitioner, a chiropractor that has is large enough that they also have a dietician in the group.

So, you know, take some time, investigate, look around physicians. We need to see people, eye to eye once a year in our state. Some other practitioners may have other more flexible options in terms of virtual versus, in-person visits. So, I could talk again for hours with you.

This is, but so, so enjoyable. The key message that I'm going to summarize, make sure that you have gotten it. Stay connect with your family so we can do this, make these nutrition improvements together as a family.

And then there are these three fats that are super important phospholipids for structure. Single lipids for communication and regulation and then cholesterol and having a deeper understanding of our cholesterol that looks at particle size, oxidation levels.

That would be most ideal I love it. That was perfect. Okay. Well, Sean, Tara, let's do this one more time. How to find you and how to find that wonderful podcast that you hope you do.

Thank you so much. So the best way to find me would be through my show is called the Model Health show, the Model Health Show. And we've got and this is crazy.

We're about to hit our 12 year anniversary. So we are one of the we're one of the originators, you know, in the health space. And we've been doing this quite a while.

We've got masterclasses on every subject matter related to help that you can imagine. I'm talking about masterclasses.

Finding Shawn Stevenson and closing remarks

We've been the number one health podcast in the country, you know, literally hundreds of times. And it's like it's a Billboard chart. So it just it goes up and down.

But we've released, you know, several hundred episodes. And also I bring on the very best experts in their respective meet, respective fields if we're digging into a certain subject matter.

And I also teach some masterclasses myself. And so you could find that anywhere that you listen to your podcast, you could find the Model health show.

And also we're doing some really cool stuff on YouTube now. So that's really been our focus recently. And and of course people can check out any of any of my books.

My most recent book is incredible, and I'm very grateful to say this national bestseller is a cookbook. Is The East Smarter Family Cookbook. And you can find that anywhere books are sold.

Your favorite online retailers, bookstores. Also, my first book was called Sleep Smarter, and it's set off this like new energy behind Sleep Wellness.

And as we're coming up here in about a year and the ten year anniversary of the book, and actually, I suppose to talk to my literary agent today about some potential, you know, doing some new things.

And I feel because a lot has come to pass in the last ten years, I'm very grateful to say. But there's 21 clinically proven strategies to improve your sleep quality in the book.

And it really is the first sleep wellness book to become an international bestseller. So I'm very grateful for that. So those are the best places to connect with me is, check it out, the model health show, check out it in my books and of course I'm on social media.

All that good stuff. I'm on Instagram at Shawn model Duane model. And like I said, I was this was the highlight of my day that I was looking forward to, to be able to talk to you.

You know, you've been so impactful in my life. You know, just your story and showing what's possible. And even when you're not around, you know, from time to time I bring you up, you know, because people are dealing with issues and they don't have hope.

And that's the thing that you've really provided for so many people. So I appreciate you, Shawn. I love you too.