

Dave Asprey:

In today's 24/7 world, you might find yourself feeling a little less bulletproof than you like some days. It certainly happens to me. I have a really busy travel schedule, including a lot of time on toxic airplanes full of bad air and questionable food, although I frankly skip the questionable food. One of my top hacks for maintaining that mental performance and just to feel good and not be too swollen is to get rid of toxins through my Sunlighten sauna.

In the Bulletproof Biohacking Labs alpha here on Vancouver Island where I live, I have a Sunlighten 3-in-1 infrared sauna. Why? Because their patented 3-in-1 technology has near, mid, and far infrared, which do different things, all in one place, so I can get the detox effects, the energy, and the weight loss, and the other things the infrared does for the water in your cells. When I do that, I'm getting access to a bunch of different health programs. There's one for detox. There's one for cardio, one for antiaging, so you can actually control the type of waves you're exposed to. The near infrared LEDs are important for cell health and antiaging results.

It's controlled with a little android panel that actually lets you watch Netflix while you're in the sauna, which is cool. It's eco-friendly, hypoallergenic basswood and premium craftsmanship. You don't want some of the toxic woods that release natural, like Mother Nature's toxins. They don't use that kind of wood. You can actually access the sauna from the cloud, so you can turn it on before you leave the office and it's ready when you get home, which is super cool. It even includes something called acoustic resonance therapy, where there's things that shake the seats according to the music you're listening to and it turns out that vibration is one of the signals mitochondria in your body listen to, so it's a cool deal.

If you want to check one of these things out, Sunlighten infrared saunas are the most effective ones I know of for deep cellular sweating. You go to [sunlighten.com](http://sunlighten.com), that's S-U-N-L-I-G-H-T-E-N.com and check the infrared and full spectrum saunas. If you mention Bulletproof Radio, you get a free set of bamboo carbon towels and trust me, you're going to need towels if you start using an infrared sauna and so limited time offer, only while supplies last. Just go to [sunlighten.com](http://sunlighten.com) and mention Bulletproof Radio. You can also call 877-292-0020. [Sunlighten.com](http://Sunlighten.com)

Speaker 2:

Bulletproof Radio, a state of high performance.

Dave Asprey:

You're listening to Bulletproof Radio with Dave Asprey. Today's cool fact of the day is a not so cool statistic about common prescriptions. Studies of about 550 different pharmaceutical drugs show that about 35% of them damage your mitochondria. Mitochondria are the batteries or the power plants in your cells. If you damage those with drugs, it's a really serious concern and you're unlikely to see warnings about this on the label.

The reason I know about this is because Head Strong, my new book. Check that thing out. Let's see if I can make it fit on the camera there. Head Strong is all about how you can make the mitochondria in your head stronger, how you can literally hack them. I came across this research and some of the things that people take for diabetes in particular screw up your mitochondria over time. When your mitochondria get damaged, your chances of cancer goes up, so you got to manage those little guys. Who would've thought that drugs did that?

Speaking of mitochondria, they like fat. If you haven't tried Bulletproof grass-fed ghee, you got to give that a shot. This is on [bulletproof.com](http://bulletproof.com). You can put it in your Bulletproof coffee and you can cook with it. It's a very stable oil and having stable oils that don't oxidize is important for you to be able to build hormones and cell membranes and things like that. Check it out on [bulletproof.com](http://bulletproof.com). Add it to your next order of Brain Octane Oil and you'll be amazed at how good everything tastes and how good you feel.

All right. Today's guest is someone who I'm really honored to have on the show. His name is Dr. Bill Sears. Unless you live under a rock, you might've heard of him because he's a highly respected pediatrician practicing medicine for more than 40 years. He's written 45 books on parenting, nutrition, and wellness. He runs the Dr. Sears Wellness Institute. He's talked pretty much on every TV show you can think of. Geez. It's hard to introduce him because he's been everywhere.

What I like about Dr. Sears' work is that he talks about positive behavioral changes for people, but also particularly for kids and families and it's science-backed, simple strategies. He's also recovered from colon cancer 20 years ago, so he went from having this focus on what's happening with families to what's going on with the system of humans. He's got a new book called The Inflammation Solution that covers his health hacks. The Inflammation Solution is something you should read if you've read The Bulletproof Diet, and if you haven't, shame on you. You listen to Bulletproof Radio and you haven't read the most distilled knowledge I could make for you, so pick up your copy of the Bulletproof Diet while you're at it. Also pick up The Inflammation Solution by Bill Sears because we're both going to tell you the same thing.

Inflammation is what matters. It matters more than almost anything else. I'll also tell you from writing Head Strong, guess what causes inflammation? Mitochondrial dysfunction. You can't have inflammation without mitochondrial dysfunction or at least damage or stress. That's what he manages in 40 years of medical practice, way more experience than I have, but his conclusion is valid and real and you totally need to hear from him. Bill, welcome to the show. It's really an honor to have you on.

Dr. Bill Sears:

Thank you, Dave. It's an honor to be here. When I read your book, Bulletproof Diet, that is the closest book to my Inflammation Solution book I have ever read,

so we are on the same channel. Thank you very much. It's an honor to be your guest.

Dave Asprey: I'm amazed to hear that and that bodes well for the approach because honestly, I've taken a lot of flak for saying it's okay to eat fat. I feel like the tide has turned. I'm about to give a talk this week at the largest natural food show. This is where all the food manufacturers go to figure out what's coming next. I'm giving a keynote address and the title of it is Fat is Back. This is neat on Google. You can actually see searches for high fat are now higher than low fat. They crossed over about two years ago where people are actually searching for high fat foods. Maybe your 40 years of tireless toil on this has made a difference.

Dr. Bill Sears: Absolutely, Dave, that fat is back, and it should never have gone away. The absolute worst dietary advice we've ever gotten in the whole world is low fat diets. Now, what I realized years ago that when so-called science blocks common sense, suspect shaky science. That whole low fat stuff was based on shaky science. What really got me into it is mother's milk. All right. Let's begin. Mother's milk is 50% fat. Dr. Mother Nature doesn't make mistake, so I first thought as a pediatrician why is mother's milk half fat. Hmm, a high fat milk. What is the number one organ that's affected for better or worse by nutrition? The brain, and the brain is 60% fat. The way I get my patients to pay attention, I says, "We're fatheads. We're all fatheads. Mom, you are growing a little fathead. They need a right fat diet, not a low fat diet," so I'm so happy that we agree that fat is back and I don't think it'll ever go away again.

Dave Asprey: Calling it a right fat diet is really cool, too, because there's this problem where oh, high fat diets are okay. Great, let's load you up with some highly processed soy and milk protein isolate and let's throw in some canola and some corn and cottonseed oil and you're off to the races. That can be even a ketogenic, high fat diet, but man, you're not going to like what happens to you or your babies if you're at childbearing age.

Dr. Bill Sears: Absolutely. In fact, the first foods ... Remember the old days, we started babies on rice cereal as the first food?

Dave Asprey: Yeah.

Dr. Bill Sears: Jump down. There's no fat in rice cereal. We're growing little fatheads.

Dave Asprey: Plus, they can't digest starch for the first year. Babies just fart it out. It's not okay.

Dr. Bill Sears: Yeah, right, they do, literally. I've seen that. We have eight children, as you know, so we've changed a lot of diapers. The first food we start, we start babies at 6 months, I have the fathead talk with my mom. I said, "Now, we'll start on avocados as a first food," avocados at 6 months, and guess what at 7 months? The number one food for inflammation and the brain and it swims in the sea

and it's pink. Salmon. I have a little sign in my office, salmon at 7 months. The moms look at me as though really? I've never heard of that. Avocados at 6 months, salmon at 7 months.

Dave Asprey: Wow. I'm guessing it's wild caught, probably sockeye salmon, not the farm salmon?

Dr. Bill Sears: Absolutely, wild salmon. Dave, we have a lot in common. I learned so much from Dr. Mother Nature, my most trusted scientist. Now, I didn't know a lot about fish, but I realized they had to be healthy for you when like you did, I had to undergo a real health change to save my life, so I went to go fishing in Alaska. I'm sitting there. I'm watching these salmon and they're not that pink as they start out, but when they start their final marathon uphill for four miles, they get pinker and pinker and pinker. I asked my favorite fisherman up there, his name's Randy Hartnell and he runs-

Dave Asprey: I know Randy.

Dr. Bill Sears: His fish is Vital Choice.

Dave Asprey: Vital Choice, that's right.

Dr. Bill Sears: He runs it and I love it. I said, "Randy, why are salmon pink?" He said, "Well, suppose you're a marathon runner and you're running uphill for four miles. By the time you got up up the top of the hill, you'd have arthritis. Your muscles would oxidative stress. You'd have inflammation everywhere, so Dr. Mother Nature says, 'Hey, salmon, stop by our little [farmacy 00:10:33] here, F-A-R-M, farmacy here, and I'll infuse into you a natural pink pigment called astaxanthin."

Astaxanthin is Mother Nature's most powerful, powerful antioxidant, antiinflammatory. Otherwise, the salmon's muscles would fall apart. I said, "Wow. If it's good for salmon, could it be good for humans?" I took a trip over to Hawaii when they had the Hawaiian Marathon. I see wow, these marathon runners, they pop a pill of Hawaiian astaxanthin before their race and so I learned so much from salmon. I brought that information back to my medical practice and one of the two words I always tell all the patients at every age, go fish. Go fish. Very simple.

Dave Asprey: For breakfast this morning, my 7 and 9-year-old had grass-fed butter, pieces wrapped in wild-caught, cold-smoked sockeye salmon.

Dr. Bill Sears: Oh, wow, what a good ...

Dave Asprey: With avocado slices and salt, lots of salt, because a little salt in the morning is good for you.

Dr. Bill Sears: ... a good brain start. Dave, actually, I'm glad you mentioned that because when parents come into my office, I say, "Oh, welcome. What brings you here?" "Well, the school says Johnny has ADD or ADHD." Now, I can tell a bit by reading your books you and I have that in common. We probably had the label of ADHD, like a hyperactive kid. Anyway, I say, "Well, what'd you have for breakfast?" Oh, all the stuff and the colored stuff and the high carbs and low fat and all that.

Dave Asprey: Fruity Pebbles, yeah.

Dr. Bill Sears: Yeah, that stuff. I say, "Johnny doesn't have ADD. He has NDD, nutrition deficit disorder. You're saying just-

Dave Asprey: I thought you were going to say salmon deficiency disorder, but I ...

Dr. Bill Sears: Yeah, salmon, like salmon deficiency. I say, "You send him off to school with junk food and you get junk learning and you get junk behavior." What you just said for your 9-year-old, wow, a smart diet, we call it, a great smart diet. Thank you.

Dave Asprey: We have a couple of vegans my kids go to school with and their parents will give them an apple for breakfast. These poor kids come into school and they can't make it for an hour and a half before their brains are all over the place. Then the whole class has to stop so they can have their 10 a.m. snack. It's like really? My kids go four hours without eating because they eat enough and they eat enough fat. It makes me sad.

Dr. Bill Sears: The school teachers don't get it. In fact, we have a whole book on fat and that's called The Omega-3 Effect. I realized that was one of the problems in schools. There's fascinating research. I know you're a show me the science person too, as I am, and I think our readers deserve science-based information. There is solid science out there that you start your child off to school with a smart breakfast, they're going to do much better. I tell my patients four smart foods to give your children. Seafood, mainly wild salmon, blueberries, blueberries are called the brain berry, and greens and nuts. An easy way to remember, go fish, go blue, go greens, and go nuts.

Dave Asprey: You are a master, after having written 45 books, at making things memorable. Question on nuts, raw or roasted, which way?

Dr. Bill Sears: Raw.

Dave Asprey: Okay. We do agree on a lot of things, don't we?

Dr. Bill Sears: Don't mess with Mother Nature. She's got a lot more experience than we do.

Dave Asprey: It's true. I'm all over hacking things and what I found is your body is designed to respond to the environment around you, so you can change the signal and let

Mother Nature respond to the new signal you put in, but you're not going to do well by changing the building blocks of your body. You can't eat aluminum and have aluminum skin. It doesn't work like that.

Dr. Bill Sears:

Yeah, absolutely. I love your term biohacker. It's the first book I've ever read that uses that term. I'm, shall we say, technologically challenged, so I had to ask my techie just what hacker meant and everything. I realized that when I was making my health transformation, I realized somewhere in our body we have got to have a pharmacy because the designer of our body, if you were making the greatest machine in the world, the brain and the body, you would know that we're going to mess it up. We're humans, so to prevent that, preventive medicine, you would put inside our body a pharmacy that makes most of the medicines we're ever going to need. That discovery actually won the Nobel Prize. I remember 20 years ago when I was undergoing my transformation, I invited the Nobel Prize winner who discovered the pharmacy, Dr. Lou Ignarro, down to our home for dinner and he was teaching me about the pharmacy.

I said, "I got to make this simple," so if our listeners can have a mental image now, I'm going to take you inside your body and show you where in the world of your body is your pharmacy and it's the lining of your blood vessels, called the endothelium. It's the biggest organ of the body that people never heard of, half of them. It's the lining of your blood vessels. I call it the silver lining, has trillions ... There's a picture now, a little mental picture, trillions of microscopic medicine bottles. They actually look like tiny, little squirt bottles under a microscope, squirt bottle.

Those squirt bottles, 24/7, squirt medicines into your bloodstream, medicines that lower the highs, like high blood sugar, high blood pressure, high blood cholesterol, medicines that raise the lows, like antidepressants, medicines that mellow your moods, anti-anxiety medicines, medicines that heal your hurt, anti-inflammatories, medicines that keep your blood from clotting too fast, anticoagulants. I just mentioned most of the medicines we take at all ages, but we can make them. The pills you make inside are better than the pills you take because they're custom made just for you. They come out the right dose at the right time. That is, I could say, I hope it's correct, let's biohack and open our natural pharmacy.

Dave Asprey:

Very well said. The idea of hacking, and I actually was a computer security professional in my former life, the idea of hacking is you need to take control of a system, but you don't know much about it because it's not yours. It turns out we don't know that much about our bodies. We know more than we used to, but there's still a lot of mysteries in there, so you can still take control of it without knowing everything. You just need enough to get in.

What you're describing there, if you imagine if you're going to inject something, you inject it into your blood, right, so it would make sense if you were evolving a

system like the body, that why have just one spot for injection? Just line the arteries so they can put things into circulation quickly.

Dr. Bill Sears: Exactly.

Dave Asprey: Endothelial damage is something, by the way, you know what fried foods do.

Dr. Bill Sears: They fry your arteries, right?

Dave Asprey: They do. It's one of those things you could smoke a cigarette or you could eat a bunch of fried food. Which one would you pick?

Dr. Bill Sears: Actually, I think the fried food's probably worse for you, but worse for you.

Dave Asprey: Yeah, see, I do too.

Dr. Bill Sears: It is for you because I'll tell you why. Let me go back into the pharmacy and get that mental picture of those little squirt bottles lining your arteries. When you eat that big burger or that fried chicken, oh yum, that fried chicken, it goes into your bloodstream and it spikes. Now, spikes is a bad word for inflammation.

Dave Asprey: It spikes inflammation. Okay.

Dr. Bill Sears: Spike, spikes, spikes, spikes. Avoid spikes. Now, avoid sticky stuff spikes. That's how I make it simple for my patients at the office. I say, "Joe, man, you're loaded with sticky stuff and I got to measure it." When that fried stuff, called sticky stuff, gets into your blood, it lands on top of the medicine bottles and your pharmacy is closed. Every time you get that big burger and that fried chicken, the sticky stuff ... Picture I'm getting sticky stuff on the top of my medicine bottles. Now, sticky stuff.

Dave Asprey: Is it fibrinogen, like clotting factors you're talking about or ...

Dr. Bill Sears: Yeah, fibrinogen, hemoglobin A1C, homocysteine, oxidized cholesterol.

Dave Asprey: Oh, so markers of inflammation, basically. Okay.

Dr. Bill Sears: The markers, exactly. For the kids, I call it sticky stuff. In fact, I was giving a talk one day at a preschool, at a school, a first grade class. I was talking about if you put sticky stuff in your mouth, you get sticky stuff on top of your medicine bottle, 6-year-olds now, okay. That night, mom took some of the class out for let's call it sticky burgers, okay, out to a burger joint, to sticky burgers. As they pulled in, the 6-year-old scolded her daddy. Says, "Daddy, we can't eat that. If you put sticky stuff in your mouth, you get sticky stuff on top of your medicine bottles." Oh, my goodness, 6 years of age.

Dave Asprey: Kids actually want to eat to be powerful when you show them what it's for.

Dr. Bill Sears: Oh, they love it.

Dave Asprey: With burgers, I'm assuming if you take off the bun and all the other crap they put on them and you're just eating high quality beef, the story changes?

Dr. Bill Sears: It does, yes. In fact-

Dave Asprey: Okay. I just wanted to double check for listeners going, "I can't eat any hamburger meat." No, we eat a lot of hamburger meat, but I know the cow it came from.

Dr. Bill Sears: Exactly. You took the burger words right out of my mouth.

Dave Asprey: Okay. Just checking. You had me scared for a minute, like no, he's anti-burger. End of interview. Just kidding.

Dr. Bill Sears: Beef is good.

Dave Asprey: Okay.

Dr. Bill Sears: We badmouth beef because of what they do to it, so I'm going to a little confession here for our listeners. Once or twice a month I have a nice, big, juicy venison burger, wild game. My consultation fee for someone in Wisconsin or Pennsylvania, my two favorite deer states, are I get some venison in the mail. I love my venison, oh, venison burger and a glass of zinfandel sipped slowly and wow, but if I don't know the farmer, if I don't know the farm the beef came from and how that farmer cared for that beef, I won't eat it and I tell my patients not to eat it if you don't know where it came from.

Dave Asprey: You have to be religious about your beef. My beef here, I live on an organic farm on Vancouver Island, so the salmon swim about a 10-minute walk behind the camera and the cows that I eat eat the grass from the two acres on the front of my property. They come and they cut the grass down and they give it to the cows. That's not all they eat. They eat other grass from other places, but there's no Roundup. It's never been sprayed with Roundup. It's as clean as I can make it because I have two young kids and they're sensitive to this kind of stuff like all children are. Mine aren't more sensitive. They're just supposed to be growing up in this environment and it's probably good for me, too, given that I'm flying 120 days of the year.

Dr. Bill Sears: Yeah, I do, too, a lot.

Dave Asprey: You do, too.

Dr. Bill Sears: I get around.



Dave Asprey: Let me ask you about that because you're 77 years old. You look really healthy. It's hard on me to fly that much, but how do you stay healthy when you fly? What do you do before you get on an airplane, when you're in the air, and when you land? I have to know because almost no one your age can fly.

Dr. Bill Sears: Sure. I'll tell you my little trip. Last year I flew 155,000 miles on American Airline. Here's what I do. Now, I'm 77, but I'm enjoying the goal of every senior. Everything works and nothing hurts. That's the goal I have for the seniors in my practice. What I do prior to the flight, all right, I make a big smoothie. I take 13 ingredients and I make a smoothie and I sip on it on the way to the airport. I am loading my body and brain with antioxidants because I'm going to be up there with radiation getting, shall we say, oxidized.

Then when I get to the gate and get through the gate, I walk around a lot. I do what I call isometrics, where you're standing tense and you put your arms together and you stand on your toes and you just really get the blood moving. In fact, I was doing that before a flight one time. One of the flight attendants came up and said, "Sir, if you're afraid of flying, we have counselors for that," because I was doing this tense exercise.

Then when I get on the plane, I do isometrics. I can get a good workout. I lift my legs up and put the heels together and flex my pecs and flex all the muscles, about every five minutes do a little one minute of isometrics. I take lots of deep breaths. It's interesting. There's been a study showing that pilots, if they load themselves up with antioxidants, have less effects from radiation, antioxidant fruits and vegetables like you mention so much throughout your Bulletproof Diet book. Then where I stay, I only stay at hotels with open windows, fresh air.

Dave Asprey: Me, too. I would like to say that, but my assistant says it's like prioritize that, yes.

Dr. Bill Sears: It's very hard. I have a pool, have a gym, and I also take my exercise bands, the bands. I put those in the suitcase. Sometimes when the flight is late or delayed, I'll go in the men's room and have a little workout on my exercise bands. Those are just some good old travel tips. I take a baggy of nuts and nibble on nuts as a snack.

Dave Asprey: It makes so much sense. I take a big fistful of plant-based antioxidants when I travel, as well. I always make sure I have ketones present, using Brain Octane, so I will go through the gate and then I'll go to the usually it's a Starbucks at the airport. Starbucks has the best water filters of any coffee company.

Dr. Bill Sears: Oh, it's good to know. Good.

Dave Asprey: For the hot water, at least. They're very strict about that. I know because I hired three of the first 10 Starbucks employees at Bulletproof. I just go, I say, "Can I

get some hot water?" I tip them really well and then I pour my own ground coffee and I brew my coffee.

Dr. Bill Sears: Oh, good for you.

Dave Asprey: I shake it up, but I want the Brain Octane, so I do that and my fistful of antioxidants before I get on. Coffee itself has the polyphenols because if you're in the air with the bad air that's recirculated, everything's covered in endocrine disruptors and flame retardants and you're breathing God knows what, jet exhaust. You got to protect yourself, right?

Dr. Bill Sears: Oh, you really do. That's the thing. Really, the older we get, the more we have to protect ourselves. One of the things, too, I travel. See, travel, you're out of your comfort zone at home. You're out of your kitchen. You're away from your farm, so there's that tendency to go down that big pig-out buffet when you travel. I have a little what I call my rule of twos. Eat twice as often, eat half as much, and chew twice as long. The smaller your meal, the better you'll feel. Even when I travel, I try to keep those smaller meals because it's so hard. You're going out to dinner with friends or after a lecture, I'm sure you're tired. You're very tired and hungry after a lecture.

Dave Asprey: Takes a lot of energy, yeah.

Dr. Bill Sears: Takes a lot of energy, so it's very hard not to, shall we say, pig out when you travel.

Dave Asprey: Now, I practice intermittent fasting quite often when I travel. That usually means I do have a big meal, but it's kind of two big meals in the day. I might have Bulletproof coffee for breakfast or no breakfast. Then I'll have a sizeable lunch and a moderate-to-sizeable dinner, but with a couple thousand calories, at least. Is that something you'd recommend or not recommend? It's fine to say it's not what you'd recommend, but I'm curious.

Dr. Bill Sears: It's something that I personally am not a fan of. However, see, what I've learned is ... I don't like these books that say never eat this. Never [inaudible 00:29:24]. Intermittent fasting, I have several patients in my office who swear by it. It works.

Dave Asprey: For some people.

Dr. Bill Sears: It really works for some people. Again, see, when it works, good sense. See, what you're doing with intermittent fasting, you're giving the ... You mentioned mitochondria. I'm so glad you mentioned that. I love those little energy batteries.

Dave Asprey: Yeah, we'll talk more about those, yeah.

Dr. Bill Sears: Yeah, let's do it. Let's talk.

Dave Asprey: Tell me more.

Dr. Bill Sears: With intermittent fasting, what you're doing is lowering spikes, see spikes. Avoid spikes. I teach this in my office, so maybe I'll do that now. Let's say we have George the gorger, all right, George the gorger. Our listeners, sorry men that we'll use men as the not-too-healthy gender and the ladies as the picture of health. That's for political reasons, but say George the gorger. George doesn't intermittent fast. He just gorges, big plates, big fries, fast eater, fast, fast eater.

Within an hour, George's spikes, sticky stuff spikes in his blood go way up and the blood flow to the brain quivers. You don't want that. The blood flow to the heart, the blood flow to the joints, the gut, the vessels are in spasm from high spikes. Gracie the grazer or Gracie the intermittent faster does not spike. The simplest I can make the effect of intermittent spiking, intermittent fasting, it avoids insulin spikes. See, avoiding insulin spikes ... If somebody say give me health in three words, I would choose avoid insulin spikes. That's what intermittent fasting does.

Dave Asprey: It's awesome because I came to the same conclusion after reading Gary Taubes' book and also just meeting Gary Taubes. He spoke at the antiaging nonprofit group that I run. I was like okay, there's something to be said for keeping insulin low, so what I can eat in the morning that has zero insulin effect and the answer is fat.

Dr. Bill Sears: Yeah, exactly.

Dave Asprey: That was one of the things behind Bulletproof coffee and it's been measured by third parties. There's zero insulin effect, so I don't get an insulin spike. Oh, the pancreas can relax. There's no protein digestion, which also causes insulin. That was one of the ideas that came together into making that what would you do. The other one came from Robert Atkins, the old induction period where he'd tell you to eat-

Dr. Bill Sears: The fat guy.

Dave Asprey: Yeah, like two ounces of cream cheese or something, but there's reasons not to do that. It did come together, so I love that idea avoid spikes. What other spikes besides insulin should we avoid, though?

Dr. Bill Sears: Sugar spikes.

Dave Asprey: Okay. Glucose.

Dr. Bill Sears: You mentioned the magic word there of health, relax. Say let's talk about your arteries again because it is a medical truism that every organ in our body is only

as healthy as the blood supply to it. If our vessels are healthy, our organs are healthy. When you eat, say, drink a cola. Let me start with the worst spike you get, a cola, sugar water, bad stuff. You drink a cola, you spike. You eat an egg, for example, which is fat and protein, and you don't spike. If I were a blood vessel and could talk to the egg eater, I would say thank you. Relax, man. I'm relaxing my vessels. When my vessels relax, they're open more. I get more blood flow to the brain. The fat and protein says to the arteries relax, man. The cola that you guzzle says prepare for a spike and you're going to quiver and you're going to get more narrow. You're not relaxing. I love that. In fact, maybe your Bulletproof Diet could just summarize saying relax, man.

Dave Asprey: I like it.

Dr. Bill Sears: Relax your blood vessels.

Dave Asprey: Stress does affect blood vessels, any kind of stress. Even if you have a bad relationship, it will be reflected in the endothelium. Now, I want to ask about inflammation in general more, but let's zoom in for listeners. What can you do to make your endothelium healthier quickly?

Dr. Bill Sears: All right. Two very simple things. One I call it my Five S Diet in the inflammation book. Salmon, seafood, wild sockeye salmon you mentioned. Smoothies, a shake a day relaxes endothelium that way.

Dave Asprey: That's made out of sugar or bananas.

Dr. Bill Sears: No, lots of fruit.

Dave Asprey: Okay. What do you put in your smoothie?

Dr. Bill Sears: Dave, your mother told you that, put more color on your plate and your smoothie, so I put-

Dave Asprey: Okay. Polyphenols then?

Dr. Bill Sears: Yes, berries. Wow, berries, fabulous stuff, berries. I put avocado, coconut oil, and nut butters in my smoothie.

Dave Asprey: There you go. That's a good smoothie.

Dr. Bill Sears: Three fats there on a very busy day, a high-energy day like in my office, I put those three fats. Then I put four different berries. I put kale in it and I put a good protein powder and kefir or green tea is my favorite fluid. I get pomegranates when they're in season and I scoop out one whole pomegranate and throw that in. Then I sip on my smoothie throughout the day. Then the fourth is snacks, the rule of twos, see, twice as often, half as much, and chew twice as long. Then the next is supplements. Three main supplements is Omega-3 supplements if you

don't like fish. Fruit and vegetable supplements if you don't eat 10 fistfuls a day. Then if you don't like salmon, Hawaiian astaxanthin supplement, a antiinflammatory. First of all to keep down the sticky stuff, to keep the endothelium open, the Five S Diet, which is a plant-based diet, and seafood. Not a vegan diet, but plant-based and seafood.

The secondly is movement. I want to really show you some fascinating new studies. You go to the doctor and says, "Joe, you got to move more, man. You're a sitter. You got to be a mover." They don't tell you why, so let's go back into the blood vessel and picture that blood vessel with the silver lining and all those trillions of squirt bottles. When you move, when you jog, when you dance, when you run or you just walk fast, the faster blood flow over the tops of the medicine bottles creates a energy field called a sheer force and it pops the medicine bottles open.

Next time you're on a treadmill or walking with friends, just think I'm opening my medicine bottles. If you really want to shock your friends in the gym on the treadmill next to you, say, "Oh, it feels so good to be making my own medicines and opening my medicine bottles." Or you could really shock them and say, "It feels so good to be growing my brain garden," because one of the medicines you make when you move is called brain growth factor, fertilizer for our brain garden. You could just say, "I'm fertilizing my brain garden when I'm running."

Dave Asprey: Oh, so much knowledge there. The brain growth factor is part of the brain-derived neurotrophic factor, right, BDNF?

Dr. Bill Sears: Yes, yes.

Dave Asprey: I write about that in Head Strong and we are actually launching a supplement called NeuroMaster that increases BDNF four times more than exercise.

Dr. Bill Sears: Wow. Whoa.

Dave Asprey: It's a polyphenol extract of the fruit of coffee, rather than the coffee beans. It turns out that all that bright red coffee cherries, they have useful in this stuff if you don't let them spoil during coffee processing, so we can take those and pull out this one compound that's clinically studied to raise BDNF.

Dr. Bill Sears: Good. Good for you.

Dave Asprey: My hippocampal volume at 44 is in the 86th percentile and for people listening, that means the size of my brain structure that shrinks when you age, it's not shrinking because of the practices that are in the Bulletproof Diet and raising BDNF with exercise and then sheer force.

Dr. Bill Sears: I'm so glad you're doing the sheer force, yes.

Dave Asprey: Sheer forces. This morning, I spent 18 minutes on the Bulletproof Vibe right before our interview. This is a whole body vibration platform that we manufacture. 30 times a second it goes up and down and it creates a sheer force kind of like a trampoline would, but a trampoline is once a second. This is 30 times a second. You bend your legs a little bit, but it's creating this systemic vibration, which absolutely has endothelial effects.

Dr. Bill Sears: Yes, yes.

Dave Asprey: I did it in front of a tanning lamp that's high in UVB and low in UVA because ultraviolet light also has some effects on mitochondria and even on your endothelial layer by releasing nitric oxide. There's so much you can do, but even just a walk is enough, right?

Dr. Bill Sears: A fast walk. See, in order to get that sheer force you mentioned, the blood has to travel fairly fast over the medicine bottles to create that sheer force. As you say, it's nitric oxide. What you mentioned, that's the medicine we're making. I'll tell you a little story. I was giving a talk in Nashville last year, the music capital of the country. I thought I was going to walk in and talk to a group of adults. I go in and there 150 children, so I had to make it childlike, so I changed the title to A Visit to [Veggieland 00:39:57].

Veggieland was your brain and health makes beautiful music. You think of your brain like a symphony orchestra and it has about a hundred different players in that orchestra. Insulin is your master conductor and brain growth factor is another master conductor. When those conductors are right on, all your neurohormones or neurotransmitters all come together and play beautiful music. Let's call the conductor VEG, vascular endothelial growth factor, because it makes more brain growth. A little girl comes up to me afterwards by name of Annabelle and she says, "Dr. Sears, I will always remember VEG. I will always remember to grow more VEG for my brain by moving more. When I get out and play and when I get out and run, I'll remember I'm growing more VEG."

Dave Asprey: Kids are so cute.

Dr. Bill Sears: They are.

Dave Asprey: I posted a study the other day on Facebook. They found that when boys, when they get less than three hours of physical movement a day, their math and reading skills decline, but not in girls, even though both genders need that kind of exercise. It may be because it's mediated by VEGF. I don't think we know the mechanisms there. We just know if they don't move around, their brains don't work.

Dr. Bill Sears: You're exactly right. In fact, there's a study. I gave a talk there in Naperville, Illinois. I grew up in the big, sticky food eating Midwest, but this study came out of Naperville, Illinois, where they took high school kids who had some of the Ds,

ADD, ADHD, and all this stuff, and they brought them to school a half hour early and they ran them around the track. Many of them could come off their meds. Their test scores went way up and the teachers said, "What is going on?" They found that the more the students move, the better they did in class.

I'll tell you my own little ADHD story. This is going back 60 some odd years, way back in the fourth grade. My fourth grade teacher, Sr. Mary Ursula, Ursula means little bear in Latin. Now, little bear had my number. She said, "Billy, you're staring out the window," because I wanted to be out the window. "You're staring out the window and you're fidgeting. Go outside and run around the schoolyard three times and come back and sit still." That was my Ritalin. It worked like a charm.

Fast forward now to this year. The number one medicine for the Ds, ADD, ADHD, and school problems and all, a little four letter word, move, move more. When they took recess out of school, the Ritalin dosage went up. I think there's a correlation.

Dave Asprey: What you're saying is that you could just substitute Ritalin for recess to save time and be more effective on standardized tests?

Dr. Bill Sears: Oh yeah, right. Yes. The more kids move ... We had a rule in our house, you might give us that, that sitting equals moving. The more time you sit playing video games, that must equal the time you spent moving. In fact, I remember one of our kids. I love these new tech stuff that's coming out where kids are actually moving like jumping on a trampoline or dancing to the videos. I love those Dance Revolution type of videos.

Dave Asprey: My kids are allowed to play that even though they're in a Waldorf school. They're not really supposed to. I tell you, my kids have the moves. They can out dance me because these video games show their brain and their body work together when they do that and they move. It's healthy.

Dr. Bill Sears: You mentioned the magic move, dance. Actually, when I read the research how dancers have a much lower incidence of Alzheimer's, we took up dancing. My wife and I took up dancing. We're very accomplished ballroom dancers now. See, dancing, Dave, it's not only the movement, but you have to coordinate the music. Now, I'm a klutz. My wife's a very good dancer. I'm a klutz and so when we start out, I had to hold a cue card behind her back and follow the cue card as I was dancing before I got the rhythm, but dance, I can't think of a ... My two favorite exercises are swimming and dancing.

Dave Asprey: One of the things about dancing, you have to move over the center line of the body. There's cross patterning, which increases the corpus callosum.

Dr. Bill Sears: Exactly. You're right.

Dave Asprey: The other one like that that I would suggest for listeners is ping pong.

Dr. Bill Sears: Oh, yes.

Dave Asprey: That came from Daniel Amen, who's a friend. I went and I saw him and he's like, "Dave, for your brain, play ping pong," so I bought a ping pong robot. It serves ping pong balls really fast and you can sit there and kind of try and do the Bruce Lee thing, but because you have to think and move across the midline, at least for my brain, where I didn't learn to move well as a kid, I read at 18 months, so I was just reading as a kid instead of crawling and doing all this other stuff. I'm a klutz, too. My dancing, it's improved recently, but it's about as good as my singing and rapping, which is pretty limited. We'll put it that way.

Dr. Bill Sears: We won't sing for our listeners then.

Dave Asprey: I did, by the way. I shot my first rap recently. I'm not a rapper or even into the genre particularly, but a good friend is, so to promote Head Strong, we filmed a real and recorded a real rap with real people who know how to do it, which for me, was a cognitive challenge, like pushing your limits. People will eventually be able to see this on YouTube, where I'm completely making a fool of myself, but it was for a good cause. How headstrong am I? Can I take up something I know nothing about and then only fail a little bit?

Dr. Bill Sears: Good for you. I'm so glad you mentioned ping pong because we have a new book coming out called Transform Five: Make Over Your Mind and Body. Five Changes in Five Weeks. We have a list of best exercises for your brain.

Dave Asprey: Oh, cool. I'll read that.

Dr. Bill Sears: We have dance and ping pong because you have to react very quickly, so I'm so glad you mentioned ping pong. Another thing I'm sure in Head Strong you're going to talk a lot about, meditation.

Dave Asprey: Oh, it's giant. In fact, I run the world's highest end neurofeedback meditation clinic, like a five day focus program with clinical grade electrodes on your head. It's changed my life.

Dr. Bill Sears: Oh, good for you.

Dave Asprey: Yeah, it's called 40 Years of Zen. It's outside of Bulletproof, but it's big.

Dr. Bill Sears: Oh, good. Good for you. See, what you're talking about ... See, we haven't mentioned any prescription medicines. What we're talking about is what I call the pills and skills model, skills before pills. Now, we all know that you will reach a point where you do need some pills and you need supplements, but pills and skills. One of those beautiful skills is the way we start the day. If your brain could prompt you, which it sounds like it has for you, it would say start the day a



beautiful way by meditation. Everybody has their own way. What I love is I call it swimming meditation. There's actually a name for it called flotation therapy.

Dave Asprey: Oh, in a flotation chamber?

Dr. Bill Sears: No. I do it just in the pool, but there's a chamber, too, but you get in a pool. The breaststroke is the easiest and you time the breaststroke to your mantra.

Dave Asprey: Wow. I've never heard of this, but it's so smart.

Dr. Bill Sears: I love my life. I love my wife. Guide me today or something where you're swimming in the rhythm of what you're thinking.

Dave Asprey: That's powerful. Wow.

Dr. Bill Sears: It is a fabulous way to start the day.

Dave Asprey: There's something I learned in Tibet called a walking meditation, where you walk really slowly with full awareness of each step and you repeat a mantra, but doing it swimming puts you in more of a parasympathetic, more of like a prenatal thing. Swimming does something to your nervous system like you had when you're in the womb. You're more programmable in water, basically.

Dr. Bill Sears: Exactly, yes.

Dave Asprey: Wow. No one's ever mentioned that. Like in 360 episodes, you're the first person. That's awesome, Bill. I never knew.

Dr. Bill Sears: That's why swimming is the best exercise during pregnancy for the women. It's a flotation therapy and see, the reason is I think it's walking, walking is great, too. I walk a lot, but with swimming, your natural floating. There's a natural rhythm. You can periodically just stop and kick your feet. I call it mind mute. I just mute my mind for maybe five or 10 seconds as you're dangling and floating. Then you get back to your mantra. The rhythm in the pool is, I think, much more brain friendly for meditation than maybe walking, although a good, old walk in the woods, you can't beat that.

Dave Asprey: I believe you're absolutely right. It reminds me, too, I filmed a documentary on toxic mold exposure from the environment, which is, in my experience, the single biggest mitochondrial poisoning happening in the world other than maybe glyphosate. Thank you, Monsanto, for spraying it on everything. Those things are such a problem. One of the people I filmed was on a walker. She could barely move. What she would do is she would drag her walker to the swimming pool, fall into the water, and then when she was in the water, she could swim. She'd swim two laps, climb out, and walk and go about her day without the walker.

Dr. Bill Sears: Oh, wow. That is fabulous.

Dave Asprey: It's profound.

Dr. Bill Sears: It's profound. That's a good word for it because that's why, I think it's law now, that every pool, especially public pools, must have a lift, a electric lift, so if you are handicapped, you just sit there. In fact, I was kidding my wife one day. I said, "When I get too old to walk, just dump me in the pool in the morning and pick me up in the evening. Let me float around."

Dave Asprey: It's perfect. For her, the neurological effect of floating and kicking turned her nervous system back on. She was able to function only if she swam every day.

Dr. Bill Sears: Absolutely.

Dave Asprey: What a weird symptom from mitochondrial poisoning, but it goes down to your brain and just being rewired. There's also flotation tanks. I have one downstairs, the ones with Epsom salt, where you can just close your eyes and float as a way of accelerating meditation. I find there are probably faster ways to do that with feedback than there are just from minimizing noise. Do you recommend those? Do you use flotation tanks?

Dr. Bill Sears: I do.

Dave Asprey: Okay.

Dr. Bill Sears: Yes, I do. I don't have one, but as I mentioned earlier, I periodically maybe oh, every 10 minutes during my half hour swim, I will pretend I'm sort of in a tank and just go to the deep end or sometimes the deep end where I can just put my toe on the very bottom and just sort of dangle. See, the beautiful thing about a tank is you can dangle. It's that weightless dangle feeling that mutes your mind. I think when you take pressure off your body, you take pressure off your mind, so yes, I'm a real favor of those tanks.

Dave Asprey: What about cold? Do you ever do ice baths, cold showers, rolling in snow and getting in saunas, any of that kind of weird stuff?

Dr. Bill Sears: I do. In fact, it sounds like we're weird in the same way, Dave.

Dave Asprey: I interviewed Wim Hof the other day, the Iceman, about this. Yeah, so you can practice this.

Dr. Bill Sears: When we were fishing in Alaska on a fishing boat, we went up next to an iceberg and I just couldn't resist. I put my Speedos on, although my daughters say, "Dad, you're too old for Speedos." I say, "Nonsense." I put my Speedos on and I jumped in the icy water right next to the iceberg, 10 seconds. That was it.

Dave Asprey: Isn't that where the great whites swim? No, I'm kidding.

Dr. Bill Sears: Yeah, you're right. Can out swim them.

Dave Asprey: You were chumming.

Dr. Bill Sears: Yeah, but in and out. It's interesting. Some resorts have plunge pools where you go in a hot tub and then you go into a cold tub. It's extremely invigorating and then relaxing, so I love that cold therapy, if you want to call it.

Dave Asprey: The idea of calling it relaxing, most people listening who've never tried this are going, "It's not relaxing. It feels like you're going to die." There's something weird that happens. I've got a tank that gets me up to my neck if I'm sitting and it has a digital chiller on it because the clinical tanks are very expensive, so I bought an agricultural livestock tank and plumbed it up myself. The digital chiller is the cool part, so I dial in 60 degrees and you get in there and at first, like, "I'm going to die." Then five minutes later, you feel like you're in a hot tub. Everything's just tingly and good. It's very odd.

Dr. Bill Sears: Odd is a good word for it, but it's after ... Do you feel afterwards, maybe five minutes later, a different feeling of relaxation?

Dave Asprey: Yeah. Something really good happens. I believe it's because your mitochondria shrink and the electron transport chain becomes more efficient and you get all sorts of opiates that are released. It's a powerful thing, even though you're cold for a while. People who hug you will be like, "You feel colder," but you feel better. It's kind of strange.

Dr. Bill Sears: Exactly. Exactly.

Dave Asprey: I did this once when I was doing the research for the Bulletproof Diet. I was in Las Vegas and at a really stressful flights all over the place. I did an ice bath in my tub in the hotel and then I went out to a party from some big technology vendor. This was when I was still working in computer security. It turns out they had one of the Playboy Playmates of the Year and all these incredibly attractive women there and a bunch of old, married, white guys from the computer security industry, which is a party of geeks. It was funny. I got a hug from one of the women and I'm forgetting her name right now, but she was really cool. We talked about skincare. She gave me a hug and she was, "Ah, you're really cold." I'm like, "Oh, I forgot. I was doing an ice bath." She was like, "I'm hugging a corpse. What's going on with this." Like, "No, I feel really good. I promise." It was funny.

Dr. Bill Sears: Yeah. See, what nature .. We have a little chapter in the book The Healing. It's called Go Outside and Play is the name of the chapter. Like Dr. Mom said, remember our mother's medicine for boredom and bad behavior?

Dave Asprey: What's that?

Dr. Bill Sears: Go outside and play. My mom used to, "Go outside and play." It's interesting the healing effects of nature. We learned that over in Japan. I was lecturing in Japan on brain health and after one of the lectures, our guest says, "Now we're going to take you and Mrs. Sears out for some shinrin-yoku," which I thought was a drink.

Dave Asprey: Yeah, sounds like a good saki.

Dr. Bill Sears: I was tired after lecturing all day and so we get in the car and we drive up to a mountaintop into the woods with pine trees. You can feel the humidity, the coolness and all. He says, "And we're going to walk around the woods for half hour and then get back in the car." Wow, nature therapy, the healing effects of just a simple walk in the woods. Wow.

Dave Asprey: I specifically live in a forest so that's ... Out the window to my left here is the path that goes down and winds through. We don't have quite ancient stuff because years ago, someone cut down all the really big trees and sold them. Bastards. We have even 50 and 80-year-old trees, but they're young by local standards. There's a book called The Secret Life of Trees. Have you ever heard of this?

Dr. Bill Sears: I read it. I read it. I read it on the airplane the other day. Yeah, it's wonderful. Oh, I love it.

Dave Asprey: It's a fascinating book. Forest bathing, there's wisdom in those trees. They're alive.

Dr. Bill Sears: Yeah, the forest bathing, exactly. It's forest bathing. That's what shinrin-yoku in Japan, probably not pronouncing it right, means, forest bathing. Wow, that's the trees. Actually, I'll tell you a tree story since we're talking about trees. I was over lecturing in Singapore last year and we went into this what they call a billion dollar garden. It was a big greenhouse, cost a billion dollars to build. They had all the best architects in the world, all the plant experts and everything, but after they finished, they noticed the trees and the plants were dying.

Now, they had all the architecture and everything. Somebody figured out we're feeding them properly, we're fertilizing, we're doing everything they do in nature, but they're dying. Then one smart person said, "You know what? Notice the trees. They don't move. The leaves are still." Then they put fans to let the trees move a little bit and they flourished. It's almost like gosh, we can take a lesson from I call it lesson from leaves, that if you are still too much, sit too much and don't move, you wither. If you move, you flourish. That's lessons from leaves.

Dave Asprey: It's interesting. Humans and trees and all animals, the water in our cells is different and the guy who discovered this, Dr. Gerald Pollack, spoke at the Bulletproof conference last year about exclusions on water. It turns out the two things that are going to make it are movement and infrared light. When you put trees under LED lights when they're infrared, they don't get it. When they have no movement from wind, they don't get it. Their sap is the wrong viscosity and when we don't get it, our blood, and more importantly, the water that allows these batteries in our cells to work is also the wrong viscosity. It's too thick or not thick enough. It's really interesting to try and put together your own forest when we're still understanding mitochondrial dynamics and maybe don't really have a full grasp of everything mitochondria do yet.

Dr. Bill Sears: Mm-hmm (affirmative). You know what's interesting? Very simply and we write a lot about mitochondria. We talk about mighty mitochondria.

Dave Asprey: In fact, that's the name of a chapter in my new book.

Dr. Bill Sears: Mighty mitochondria and the little [mitos 01:00:29]. When you feed them and see, two things here. We're only as healthy as the blood vessels feeding our organs, but every organ's only as healthy as every cell in it. Every cell is only healthy as the health of the mitochondria in the cell. You take care of the cell membrane, that package of the cell, and the mitochondria function better and you don't get mitochondrial dysfunction, another dysfunction. You know what the membrane is made of mostly? Fat, getting back to the healthy fats.

Dave Asprey: Undamaged fat. Not fried fat, not margarine.

Dr. Bill Sears: Undamaged fats, right, good fats. It says we're going to let in the good stuff for the mitochondria and we're going to kick out the bad stuff, take care of your cellular membranes.

Dave Asprey: Yeah. If people regularly got lab tests for their cell membrane function, they'd be scared. I actually got one done recently. I wish I could remember the name of the lab offhand, but I did a very comprehensive panel, probably the most comprehensive I've ever done with a full-body FMRI and DEXA and everything. They said I had one of the better cell membrane functionings. Like, "It's very unusual for someone in your age and profession to have functioning cell membranes." Like, yeah, it's by design.

Dr. Bill Sears: By design, absolutely. Again, I can imagine if I'd said that to my patients, "Hey, you have a cell membrane dysfunction," they wouldn't have a clue what I'm talking about. That's right. If your cell membranes are not keeping out the bad stuff and not letting in the good stuff, the energy batteries, that's why we get sick and tired. Basically, mitochondrial dysfunction is why we get sick and tired.

Dave Asprey: In fact, when it works really well, that's when your brain works. That's the whole point. You absolutely get this. I love chatting with you about it. I have a question

about other endothelial healing techniques because I've been targeting my endothelium for a long time because when I was 26, 27 I had some lab works done. I used to weigh 300 pounds and I was exercising and I was eating a low fat, high carb, minimum calorie diet, all that crap that doesn't work and lots of job stress and relationship stress and all that.

I had a very high risk of stroke and heart attack. I had high fibrinogen. My blood would clot completely within 10 seconds when it was taken out of the body and they were worried. Frankly, telling me that I was going to die, like I was old before I was 30, was really good because it made me go to an antiaging group and I learned a lot. I started looking at my endothelial system there and one of the things back then, this is 10 plus years ago, that had good evidence for it, was something called exercise with oxygen therapy. Is this something you've every played with?

Dr. Bill Sears: I haven't, Dave, but it makes sense. It really makes sense. What you mentioned about fibrinogen and clotting, this is interesting story. This is how it was all discovered why there's ... See, what you discovered is you had high levels of sticky stuff in your blood, to make it simple, sticky fibrinogens, a clotting ... Fibrinogen's like a net, like a fishnet. It collects all the stuff and clogs your arteries if it's too high. You want some of it so you don't bleed, but not too much.

I was fishing with a doctor, Jorn Dyerberg, over in Norway about 10 years ago. He told me the story how they discovered the blood thinning effect of salmon and fish oil. This is way back when the low fat diet came out and all that low fat craze. He said, "Something doesn't make sense here. Eskimos have the highest fat diet in the world, but the lowest incidence of heart disease. Hmm." He hops on a plane, goes from Norway to Greenland, and draws blood from the Eskimos. He found that the Eskimo blood clotted half as fast as the same blood samples from Europeans and Americans. That was a aha discovery that fish oil, fat, actually thins the blood and lowers the level of the clotting factors. That's why Eskimos don't get heart disease.

Dave Asprey: It's also why Eskimos get more nosebleeds than average.

Dr. Bill Sears: We've got some connection here. I think it's called mirror neurons.

Dave Asprey: Oh, there you go. Exactly.

Dr. Bill Sears: Because I asked Jorn, "Now, was there any problem you saw?" He said, "Well, it's kind of a nuisance. They have a lot of nosebleeds." I thought it was due to the low humidity in the igloos, but no, you're right. The sole side effect of good medicine.

Dave Asprey: Growing up, I had at least 10 nosebleeds a day and in my case, I lived in a basement that had stachybotrys, the toxic mold. We didn't know at the time. No

one knew that stuff in the '80s. This is a symptom of that. I also had cognitive dysfunction and swelling and arthritis since I was 14, all these other bad things that came from slow poisoning my mitochondria, which is what those molds do. Mitochondria are bacteria. Molds and bacteria are ancient enemies and they fight each other.

What was really interesting for me though is I became aware of what causes nosebleeds, so to this day, if I go around certain species of mold that are inside water-damaged buildings, the smell of it off, within a day, God, I'm just nose bleeding. If I take too much fish oil, even if I'm not exposed to mold, I'll get the same thing, just gushing blood. You can titrate your blood based on how bright it is and how well it runs, which is fascinating to me.

Dr. Bill Sears: Yeah. I see you're fascinated with these new, exciting technology and lab tests. Actually, there's a brand new test where you on a little finger stick, a drop of your blood, you can check the level of your Omega-3s and your Omega-6s.

Dave Asprey: Is that from ZRT or is it from another company? Do you know which one?

Dr. Bill Sears: I know there a bunch of them. Vital Choice makes one.

Dave Asprey: Ah, that's right. I have one from Randy.

Dr. Bill Sears: OmegaQuant. Yeah, Randy at Vital Choice. Just a little finger stick and you put it on a little envelope and mail it in. It gives you your fat profile in your blood, how much the level of Omega-3s, the level of Omega-6s, because one of the causes of inflammation is we are a country of inflammation imbalance. One of the biggest causes is too much of Omega-6s and not enough Omega-3s. Omega-6s, they're necessary. They're essential fat, but they're like a neighborhood bully. If you eat too much of them, then they use up all the enzymes and the Omega-3s can't get into your cells. The simple little test, as I say, "We're going to measure your Omega balance," and say, "Really?" Yeah, we're going to measure.

That's how also I get the vegans in my practice ... In California, lot of vegans. I say, "Okay. Vegan diet's extremely healthy. You'll probably live a lot longer. All the studies are good, but you could have an Omega-3 deficiency because you don't eat fish, so let's measure your blood for your level of Omega-3s." Most of them come back low and that's how I motivate them to at least take an algae-based fish oil supplement. My favorite is Vegan Plus. Vegetarian plus seafood is, I guess, the diet that you and I are mostly on.

Dave Asprey: It needs to be a big plate of vegetables and you got to eat some fish. If you eat some grass-fed beef or lamb, it'll help you. I gave a talk at the largest raw vegan conference. This is the David Wolfe conference a while back. I said, "Guys, here's the deal with grass-fed ghee. It helps to accelerate the polyphenols from the vegetables. If you're a vegan, I was a raw vegan for a long time and I ended up getting problems from it. In fact, a lot of vegans do end up, as you know,

developing things that go way beyond B12 deficiency. I just quit doing it because it didn't work for me. It turns out there's environmental arguments against it, as well, where if you don't have animals pooping on the soil, you're not going to like your vegan vegetables. Sorry, guys. It's this whole certain thing. I really struggled with that, just thought I don't like to torture animals. That's why I know the guys who raised my cows and things like that.

I gave this talk and the next year I came back to the same conference and I said, "How many of you are eating ghee?" Three-quarters of the room had added ghee or butter back into their vegan diet and they felt better. They were warmer. It's like I always struggle because it's fine. Eating lots of vegetables is the right thing to do. Caring about animal welfare, caring about soil, all that stuff is really good, but if you're not getting some egg yolks, gently cooked egg yolks and some grass-fed butter, you're not going to have functioning cell membranes. Then all that care that you put into your food, you're not putting into your body and you're not going to function at the level you're capable of functioning as a human being trying to do the right thing.

Dr. Bill Sears: Absolute and I'm so glad you mentioned eggs because eggs have been, shall we say, exonerated from ... You remember? I shudder when I go into a restaurant for breakfast and I say, "Egg white omelet, please." Man, you're missing the best part of the egg.

Dave Asprey: Like give me the yolks.

Dr. Bill Sears: You don't get fat by eating fat again, so an egg. I do this in my office. I say, "All right. Tomorrow when you're hungry, eat an egg, say a hard boiled egg or a nicely cooked egg." Just eat an egg, 75 measly calories, okay, if you're a calorie counter, which I'm not. "Then next day when you're same time, same hunger, eat a slice of white bread. Yeah, same number of calories. Notice an hour later how you feel. From the egg, you still you're not hungry. You feel good. You're hungry and a little bit foggy an hour or two after the white bread because it's junk carbs." An egg, oh, I eat an egg a day.

Dave Asprey: I actually recommend, especially for women in the morning, you want to get some protein. Not always. Sometimes just fat is fine, but the top protein to put in Bulletproof coffee is the grass-fed collagen that I make because collagen is an antiinflammatory protein. It's got powerful stuff. You blend the coffee first, which cools down, but you can crack two eggs into your coffee and blend it.

Dr. Bill Sears: Oh, I've got to try that.

Dave Asprey: It doesn't make chunks or anything gross. It's not like a smoothie. It actually just disappears and you're like oh, the coffee is creamy like it was before, but you just got all the egg goodness and it wasn't even damaged by frying it or overcooking it. You just drink it and it basically just makes the coffee even more



rich in protein and then phospholipids, these healthy fats. It's kind of a cool hack.

Dr. Bill Sears: Do you feel good after eating an egg? Is it my imagination? I do. I feel terrific.

Dave Asprey: I always felt amazing from eggs. Then I went on the pseudo-Eskimo diet during my research for the Bulletproof Diet. Egg yolks, especially, restored my wife's fertility. They're such a core part of becoming strong. When I went on a zero carb diet, like one serving of vegetables a day and tons of fat and protein, I actually developed an allergy to eggs because I couldn't make the mucus lining of my gut. I'm about 70% done with it, but I still have a small reaction to them, so I actually feel angry when I eat eggs now, but I used to feel good.

Dr. Bill Sears: Actually, it's called microexposures. If you start eating a little bit of an egg each day, gradually, your immune system will say okay, welcome back egg. Actually, a little secret. Before a lecture, as you and I know, lectures wear you out.

Dave Asprey: They do.

Dr. Bill Sears: You're mentally really tired. I love doing them, but they're tiring. Say I have a 7:00 evening lecture. I'll go to the men's room or someplace I can hide at 6:30 and I'll eat a hard boiled egg. That's my before lecture snack. It doesn't fill me up so I'm feeling too full, but it lasts an hour, hour and a half as a perfect ... I just love eggs for a snack.

Dave Asprey: All right. I've got to send you something else. I'm going to send you the Bulletproof collagen bars. These have that Brain Octane oil in them. They have two grams of carbs that come from the cashews, the raw cashews they're made with.

Dr. Bill Sears: Okay.

Dave Asprey: This is what I do now partly because I developed my egg sensitivity that I'm still hacking, but also, the oil in it raises your ketone levels, so you get ketones to feed the neurons while you're lecturing. For me, that's been a big thing, so we'll send you some of these just because as a portable food, sometimes you can't get a hard boiled egg or it's not organic and whatever. It's changed my travel pretty radically, so it'd be my pleasure to send you some.

Dr. Bill Sears: That's good because see, those are the fats that the brain loves because they can use them real fast. You're probably a fan of olive oil, too?

Dave Asprey: Absolutely. Right.

Dr. Bill Sears: I love my ... In fact, you talked about salads earlier. Here's my little trick, little favorite. I have a salad every day, the evening usually, but twice a week I make a hot salad. I just make the same salad, big salad, and I put it in a steamer for two

minutes. Then I take it out and I drizzle tablespoon of olive oil on it. Then I put turmeric and black pepper on it, turmeric and black pepper. Turmeric's your top antiinflammatory spice and you pair it with black pepper and it increases the absorption. That's my hot salad and I eat it with chopsticks. That's our biggest weight management tool that we use in our medical practice is we say, "No fork. Use a chopstick," especially for these big guys who are gorgers. I tell their wives, I say, "Hide all the forks. Make them use a chopstick. It will slow him down."

I actually thought of that when I was giving a talk over in China couple years ago. I was invited by the Chinese government to give a talk. I said, "Why?" They said, "Because the Chinese are eating like Americans and they're getting sick like Americans, so please come over and talk about it." At the end of the talk, one of the Chinese doctors said, "Dr. Sears, why do Americans eat so much so fast?" I said, "Bingo. You pinpointed our problem." I said, "I think I'll try to make a law against forks and make everybody use chopsticks." I was kidding, but I thought that's not a bad idea. You listeners might try that. Put away the fork. Use a chopstick. You'll enjoy each bite. We call it chew, chew times two.

We're doing a little book on the microbiome, too, the gut bugs. I have a little picture in my office showing the kids the gut bugs, the microbiome. I have a little saying, the better you chew, the better you poo because the kids are coming in with constipation all the time. Only way I can get them to chew longer instead of gorging their food is by going down to their level and saying, "The better you chew, the better you poo."

Dave Asprey: I love that. We're coming up on the end of the interview and there's a question that I'm really eager to hear your answer to. This is something I've asked every guest on the show. If someone came to you tomorrow and they said, "All right, Dr. Bill Sears. I want to perform better at everything I do throughout my day, throughout my life. What are the three most important things that I need to know?" What would you offer them?

Dr. Bill Sears: Eat real foods, meditate more, agitate less, move more, sit less. Those are my three.

Dave Asprey: I love it. Thank you so much for a fascinating, far-ranging, far-reaching interview, quite a lot of fun. People can find out more about you by looking at your new book, which is called ...

Dr. Bill Sears: The Inflammation Solution is our newest. Then we have a new one coming out in a few months called Transform Five, but they can learn all about ... We have our website [askdrsears.com](http://askdrsears.com) or our Wellness Institute, the [drsearswellnessinstitute.org](http://drsearswellnessinstitute.org).

Dave Asprey: Okay.

Dr. Bill Sears: Dave, it's been a real pleasure. One of the reasons that we do all these book writings and everything, I call it the helper's high. I think if you and I, from what we had to say today, can change the lives of maybe a few hundred people out there who live happier and longer, than we go to bed tonight with that extra dose of helper's high.

Dave Asprey: Yeah, very well said. That's why I started the show. It's why I started this whole company and it's why you do what you do very obviously.

Dr. Bill Sears: Yes.

Dave Asprey: Thanks for all your helping. Thanks for your work. I'm certainly familiar with it. Even in my Better Baby book, I'm sure I read some of your things and learned from them, so you've made a difference on literally millions of people, so thank you for being on Bulletproof Radio.

Dr. Bill Sears: Thank you, Dave.