



THE FAT SUMMIT

Separating Fat From Fiction

Transcript:

**Interview with Daniel Amen, MD.
amenclinics.com**

**Interview by Mark Hyman, MD
drhyman.com**

Dr. Hyman: Hi everybody, this is Dr. Mark Hyman. Welcome to the Fat Summit where we separate "fat" from fiction. And I'm here with my good friend and colleague and co-conspirator for health, Dr. Daniel Amen who is one of my close friends, and we have done a lot of amazing work together. And he's just an extraordinary psychiatrist, doctor, thinker, nine-time *New York Times* best-selling author. He's the founder and CEO of the Amen Clinics in Costa Mesa, San Francisco, Bellevue and a whole slew of other cities. And with Rick Warren and myself, he helped create the Daniel Plan which was using the power of friends to change behavior. And we use the concepts of healthy nutrition and lifestyle to create a yearlong program for faith based wellness.

It really helped 15,000 people lose a quarter of a million pounds. It's been so fun to do this with you, Daniel. We've had such an amazing good time doing it and learned so much from each other, it's really been great. And today we're going to talk about the brain, and the brain and food, and the brain and fat. And as you know, and I've learned from you, the brain is mostly fat. And so, it makes sense to think about what is the role of fat in the brain, and how should we be thinking about what we're eating in our brain?

Dr. Amen: Well, when we were sold low-fat diets, we got sicker and fatter than ever. People always think, "Oh, high cholesterol will kill you," but nobody really talks about if your total cholesterol is under 160 it's associated with homicide, suicide, depression and death from all causes.

Dr. Hyman: That doesn't sound like fun.

Dr. Amen: Fat is your friend. If someone calls you a fat-head say, "Thank you," because it is absolutely essential to the physical functioning of your brain.

Dr. Hyman: So tell us about how much your brain can change because you are one of the pioneers in helping us understand that our brain is not fixed. We always think, "Oh, well, if we damage our brain," or if we had too many drugs in college or we drink too much that our brains get injured and there's not much we can do about it, but you've actually written so much about how you can change your brain and it changes your life. You've also not only written about it, but through the Amen Clinics have scanned tens of thousands of people over decades looking at their brain functioning and seeing the correlations with that, their lifestyle, their diet. So tell us about how that all works.

Dr. Amen: Well, the first thing I have to say is how happy I am to be with you. How much I love you and how much our work together has meant to me personally. It was your book, "The UltraMind Solution," I actually bought for every one of my doctors. We have a staff of 30 medical professionals because it

was just so helpful, so awesome and really helped us become integrative medicine psychiatrists. So that's really how I think of you as my mentor. It's really been one of the highlights of my life, and the Daniel Plan is now done in literally thousands of churches around the world. Our work together with Pastor Warren is changing a lot of people's lives. So I'm just thrilled about it.

My journey to the brain was a little weird. I was an infantry medic when I was really young. Decided I didn't really like sleeping in the mud or being shot at, so I got myself retrained as an x-ray technician and just fell in love with imaging and medicine. So when I was in medical school, someone I loved tried to kill herself, and I took her to see a wonderful psychiatrist. I came to realize that if he helped her, which he did, it would not only help her, but it would help her children and even her grandchildren as they would be shaped by someone who was happier and more stable. So I fell in love with psychiatry. But what I learned quickly is psychiatrists are the only medical doctors who never look at the organ they treat.

Dr. Hyman: What a concept.

Dr. Amen: And with my imaging background I thought that's just the dumbest thing. So, about 25 years ago we started looking at the brain with SPECT and, Mark, it just changed everything. I started to care about my brain which led me to actually use less medicine because some of our medicines are toxic to the brain function. I was taught to actually use benzo's in my residency at Walter Reed. And when I started scanning people who took Xanax, Ativan, Valium, Klonopin, their brains looked like alcoholics. So I started thinking, "What are the natural ways to help the brain," and that's where I discovered DHA, and EPA, and GABA and some of the other things we use at Amen Clinic.

Dr. Hyman: Those are omega-3 fats and amino acids, right?

Dr. Amen: Correct. At medical school, they taught us, first do no harm. Use the least toxic most effective treatments.

Dr. Hyman: They said that, but they didn't tell us how to do it, right? That's the problem.

Dr. Amen: Sixteen hours of Newton in medical school, even though food based disorders are half of the problems we see in medicine.

Dr. Hyman: That's right. Food causes most of the chronic disease we see. It's the cure for most of it and yet doctors learn nothing about food in medical

school. You'd be happy to know at the Cleveland Clinic we just got nutrition put into the medical school curriculum.

Dr. Amen: How crazy.

Dr. Hyman: It's great. And functional medical nutrition, which is great. We just launched an act in Congress, which will hopefully get passed, called the Enrich Act to fund medical schools to have nutrition education in medical schools.

Dr. Amen: Wow.

Dr. Hyman: Isn't that great?

Dr. Amen: It's nuts. Tana and I are working on a project called the Brain Warrior's Way because if you really think about it, we're in a war. Everywhere you go, someone is trying to shove bad food down your throat that will kill you early. And you and I travel a lot, and in the airport yesterday I was just counting of 100 food choices I had, 97 were bad for me. So if my frontal lobes don't work right, the decision making part of my brain, then I'm going to make a bad decision that's going to hurt me. You have to have a warrior's mindset so you're armed, prepared and you make good decisions.

Dr. Hyman: Yeah, it's true that you talk about the food pushers, right? I learned that from you. And there are food pushers everywhere. They're your friends, they're your family and they're the environment, right? If we live in a toxic food environment. You go in an airport or walk down the street, it's like a constant barrage of a toxic food environment. It's like a nutritional wasteland, and we expect to be able to thrive and survive in those areas and it's super hard. So, it's no wonder people's brains are not working right. And the challenge is, right, once your brain has been hijacked by that stuff, it's hard to get it back. So how do you help people get them back?

Dr. Amen: Well, your taste buds actually make themselves new every 10 days. What you and I both discovered is if you get people to do the right things, it only takes about 10 days for them to lose their cravings, but you have to do the right thing. I figured it out a long time ago, its three basic steps. Brain envy, got to care. Nobody cares about their brain because you can't see it. Avoid anything that hurts it. So, toxic food is clearly one. And then engage in regular brain healthy habits. So it's care, stop, do. You just have to fill out the list of what to stop and what to do. Too many people think that if they go on a vegetarian diet, if they go on a low-fat diet that that's really great, and they applaud themselves for it, but they don't really understand the cure may be worse than the illness.

Dr. Hyman: Yeah. So a lot of the research shows has contradictory information, right? So saturated fats may be harmful to the brain and other people say they are helpful to the brain. What have you found?

Dr. Amen: I don't think that they are harmful for the brain. In fact, when humans started to eat animal protein, which is loaded with saturated fats, the brain actually started to grow larger and we needed a smaller intestines because they were compact sources of calories. A lot of the fat studies are confusing because...In fact I read one recently, I think I sent it to you, where they said "Oh, fat's bad for you," and they gave these rats a high fat diet. But when you actually looked at what they gave them, the high fat diet...

Dr. Hyman: Yeah. It's like motor oil.

Dr. Amen: It was loaded with sugar. That's the wild card, because when people go on a ketogenic diet, which is often filled with saturated fats their cholesterol numbers often get better.

Dr. Hyman: Right, it's true. I see that. I treat dementia patients as do you, and I've seen when I cut the sugar and carbs out and I put them on a super high fat diet, sometimes even a ketogenic diet, it seems like they just wake up. It's like Rip Van Winkle. It's pretty stunning to see that. And I think I'm not the only one who's seeing this. It's been reported in the literature that it's being used as an experimental diet for people with dementia and showing benefits. So recently we had an event at Cleveland Clinic where I invited Dale Bredesen, who is one of the top Alzheimer's researchers, and he's showing how you can actually reverse dementia using a collection of different interventions based on functional medicine including ketogenic diets which is using very high fat diets with these Alzheimer's patients, and they're seeing remarkable results. So how do you explain that?

Dr. Amen: When you do the right thing for the brain even if it's sick, it can start to heal. I did the big NFL study...

Dr. Hyman: Yeah, tell us about that.

Dr. Amen: And we had hundreds of players who had very serious brain damage. But when you put the brain in a healing environment, 80% of our players showed high levels of improvement.

Dr. Hyman: That's amazing.

Dr. Amen: We were like little kids, we were so excited. There was this thought in the back of my head, that when someone gets demented, they feel bad for the person, and then they send them to a care facility, and the care facility gives them the menu and allows them to choose. And what do they choose? Crap. They choose high-glycemic, low-fiber foods that accelerate their early death.

Dr. Hyman: And dementia.

Dr. Amen: If we could just control that we would be so much smarter. People think of sugar as treats, "I don't want to withhold treats from them," and in fact, they don't really understand how they're hurting them.

Dr. Hyman: Hurting them, right. No, it's true. So, in NFL players one of the challenges is that they get head injuries, and head injuries cause brain damage, and these players often get cognitive impairment. We call it MCI or mild cognitive impairment or even early dementia or dementia. They have a much higher risk of getting this. Tell us how you've shown in these NFL players that you literally have reversed the damage in their brain and not only on a physical level but actually on a functional level, their symptoms get better.

Dr. Amen: Well, that's what we got exciting about. Anthony Davis came to my office in 2007. He's the Hall of Fame running back from USC called the "Notre Dame Killer." He scored six touchdowns against the University of Notre Dame in 1972, and so he was famous for me. He played 8 years in the NFL, and at 54 his brain looked like he was 95 and it was bad for 95. I put him on the program, the same program that I had been doing for a long time.

Dr. Hyman: What were his symptoms? Did he have dementia? Or what were his symptoms?

Dr. Amen: So, he had brain fog. He was irritable, he was taking things the wrong way almost bordering on a little bit of paranoia. And he saw his friends with that far off look in their eye, and he said "Doc, I don't want that." He did all the things that we asked him to do. Really, based on our work that's very similar and five months later he's dramatically better.

Dr. Hyman: So, what are the things? Tell us what the things were. I know what they are but maybe the people listening don't know.

Dr. Amen: This is one of the things I've learned from imaging is his cerebellum was really low. That's the back bottom part of the brain. It's involved with coordination but also thought coordination. So one of the first things I had him do was coordination exercises like dance, table tennis and he loved that.

Dr. Hyman: Yeah, you whipped my ass at ping-pong a few times. I don't know about those ping-pong thing.

Dr. Amen: And then we got his important numbers. It's one of the things people always do. You and I, we started the Daniel Plan talking about you've got to know your numbers, and his waist to height ratio, I said to him, "Hey Anthony, what's your waist?" He says 36, and then I measured it and it was 44 and he's like, "Are you saying I'm fat?" And I'm like, "You've got to lose some weight." So we put him on a weight management program because belly fat is just completely toxic to the brain. And the way you hook guys on belly fat is it takes healthy testosterone that makes you virile and strong and turns it into unhealthy cancer promoting estrogen so you're going to feel and act like a girl. And so they just hate that.

Dr. Hyman: But also you talk about the dinosaur syndrome, right?

Dr. Amen: I do. As your weight goes up, I published two studies on this, as your weight goes up, the size and function of your brain goes down. So we actually ran an NFL...

Dr. Hyman: So big belly little brain?

Dr. Amen: Big belly little brain. People, they sometimes get offended with it, but most people know the truth, the truth will set you free.

Dr. Hyman: Particularly the frontal lobe, your decision-making changes, right? When you have a big belly, you can't function to make coherent decisions as well. Is that true?

Dr. Amen: Absolutely. The part of our research that we found was lower when we compared normal healthy weight people versus overweight people. And getting well is about a series of good decisions you really have to make. And then you have to make them over and over again.

Dr. Hyman: It's like a Catch-22. If your brain is not working, you can't make good decisions. How do you make the right decisions to actually get healthy and it's tricky.

Dr. Amen: It is. So you often have to treat frontal lobe problems, and I don't know if you know, but ADD, people who have ADD, have low frontal lobe function. They have three times the risk of Alzheimer's disease. So what we did

with Anthony was exercise, weight loss, and the weight loss was basically think of a plate, 70% of it is plant based food.

Dr. Hyman: It wasn't a low-fat diet?

Dr. Amen: It was definitely not a low fat diet.

Dr. Hyman: Seventy percent plant based, and then...?

Dr. Amen: Thirty percent high quality protein, but within that mix, a lot of healthy fat, avocados, healthy oils, nuts and seeds. And he loved the weight loss part of it, and then...

Dr. Hyman: So you get him off the sugar, refined foods, and the processed, and the carbs and you get him on more fat, protein and vegetables, which is basically the plan of *Eat Fat, Get Thin*, and your plan, It's the reason we all do the same thing is because there's like one human diet that works. So we've all sort of come to same conclusion about how to fix whatever it is. Whether it's autoimmune disease, or digestive issues, or brain issues, or mood issues, or heart issues, or diabetes, it's not like a different diet for every disease, right? It's like a one generally healthy human diet and it's essentially what you just described.

Dr. Amen: That's exactly right. And so what I discovered and I know you discovered the same thing is, is if you look at depression, dementia, diabetes, obesity, they are really not different disorders. What they are, are different expressions of the same unhealthy lifestyle that have exactly the same cure. And that's what I get so excited. You don't need a lot of different things. You need I think of it as this one program. And then with the NFL players we did is we put them on a multiple mechanism approach. And taking ginkgo for example, and I'm a fan of ginkgo, but by itself it's just not smart. Or taking the jellyfish extract by itself is going to fix you? No, no, no, no. We need to go after inflammation which we use omega-3 fatty acids for, blood flow, we use ginkgo and vinpocetine. For citicoline we use something called huperzine A that we like a lot, or choline, you can load with that.

Dr. Hyman: And choline is a fat. Essentially, it's eggs, right?

Dr. Amen: Correct, it's a fat. And we also use phosphatidylserine for cell membrane fluidity. And so it's really...

Dr. Hyman: That's another fat. You use special kinds of fats that are actually helping build cell membrane, help cell communication, help the brain cells talk to each other and so people can think better.

Dr. Amen: Correct, because the brain is fat. It's just absolutely critical. But I really like this, we're going to go after blood flow, inflammation, oxidative stress, blood sugar stabilization, and you know this. Blood sugar is just huge, but a lot of people don't know is that when your blood sugar is high, even high normal is associated with brain atrophy, and so if you have this double whammy of high bad fats, omega-6 fatty acids, and high blood sugar, it's really like if you have dynamite in your body and there's going to be an explosion and you're not going to be happy with the outcome.

Dr. Hyman: No, right. You see now that diabetics have four times the risk of getting dementia and that now they are calling Alzheimer's type three diabetes because they are finding that insulin resistance in the brain is actually driving so much of that. Sugar literally causes Alzheimer's. And I think the question is what happened? We got off of fat and started eating all this pasta, bread, cereal, rice even if it's not like candy, it still acts in the body the same way, right?

Dr. Amen: Well, it goes to sugar faster than sugar. So it's frightening I think if you see a big bowl of rice or a big bowl of pasta, you should be thinking about a big bowl of sugar.

Dr. Hyman: My friend David Liberty says that a bowl of corn flakes without the sugar or a bowl of sugar without the cornflakes, below the neck the body doesn't see any difference

Dr. Amen: Yeah, and above the neck too, in the brain, it just sees it as poison. And people are going, "Well, what do I do? What do I do?" Because they are literally addicted to the high-glycemic, low-fiber foods, and what they do, like any addict, you don't have cheat days. There are so many people that recommend moderation, cheat days, and I'm like, "Well, let's see, I have a sex addict in my practice, am I going to recommend cheat days?" It's like, "Probably not." Or if you're a smoker or you're and alcoholic, I'm going to recommend cheat days?

Dr. Hyman: Yeah, it's tricky.

Dr. Amen: And it's the same mechanism in the brain.

Dr. Hyman: It's true. So you may not know the answer to this, but I've been talking to different researchers about the addiction in the brain, and we know for example from Dr. David Ludwig's studies where he took overweight guys and he gave them two milkshakes that looked, tasted, and seemed the same. They were the same calories, same grams of protein, grams of fat, grams of

carbs, same fiber and they were isocaloric, same calories, and they were different in the type of starch. One was a high-glycemic starch. It raised the blood sugar a lot, and it was just very blunt. It would not raise his sugar much at all. And the ones who had the high sugar one, it wasn't actually higher in the amount of calories in terms of starch but just the type. They actually lit up the nucleus accumbens which is the addiction center in the brain. So, and I've talked to other researchers that say the fat actually has the opposite effect. It changes the function of your brain so that you aren't hungry and aren't craving it. The main effect of fat is on the brain. Did you know about this?

Dr. Amen: Well I've certainly seen the studies on sugar and the nucleus accumbens. It's the little pleasure buttons in your brain. When you push on them, you feel really happy and motivated. You feel motivated to make it happen again. And so sugar activates it much like cocaine activates it or heroin activates it. And I think you have to be very careful with your pleasure buttons. You want your grandchildren to activate those when you see them and it lights it up. You want the good things in your life to have control over you not the toxic things.

I remember when we started the Daniel Plan one of the pastor's wives came into my office, and she said, "We were at dinner, you and Dr. Hyman, and when I was on the way home with my husband, I told him I'd rather get Alzheimer's disease than give up sugar." And I asked her, "Did you date the bad boys in high school?" It's like, how does that make any rational sense? And it doesn't. But it shows you how powerful sugar should be. I don't want anything in my brain that's controlling me, especially things that hurt me.

Dr. Hyman: Yeah, right. Well, you know it's true. It's interesting when you have a conversation with people, you both have the experience. They start negotiating. Well can I have agave? Can I have this or that? Can I have artificial sweeteners? What can I have? Because they're not willing to give it up, but they are looking for a wiggle room out, and that's the sure enough sign. If you're thinking that right now, that you're probably a sugar addict and you need to kind of deal with that. That's why I wrote the *10 - Day Detox*, to help people get out of that. And 10 days is enough to really, like you said, shift the whole thing.

Dr. Amen: Right. Tana sends her love by the way. One of Tana's greatest gifts is to take really healthy food and make it taste awesome. What we have to do is get people away from I can't have this, I can't have that with really a deprivation mindset because when you eat right, and both you and I know this, it's about abundance. It's not about deprivation. But until they lose that idea, they are really not well. The people who are taking the month of December off, they don't get it. They don't get it.

Dr. Hyman: Right, it's true. People don't connect the dots between what they're eating and how they feel, and they're struggling, and people actually can quickly reset it, it's great. And with the Daniel Plan, we saw so many stories of change that happened. And as a result of people literally changing their diet and we didn't advertise it this way but the Daniel plan was 40 or up to 50% fat in some cases and we didn't call it that because people are scared. We said have avocados, have olive oil, have nuts and seeds, have coconut oil. Have some chicken or fish or grass fed steak. Those are high fat foods and we didn't take them on a journey of, "Oh, we are going to put you on a high fat diet."

But we basically just kind of hoodwinked them and gave them, "Here some delicious food. It's delicious, it's amazing," and the beautiful thing about eating higher fat diets is it actually tastes good. So, fat actually is stuff that makes food taste good. And if you take the fat out, you have to put in sugar to make it actually palatable.

Dr. Amen: Well, that's where we went wrong in this country, and we have just paid for it dearly. New study out of JAMA, I think I sent it to you, 50% of America is now diabetic or pre-diabetic. That's a disaster that our children will never be able to afford and we can't reverse this.

Dr. Hyman: No, no, that's right. So let's talk about the brain super foods because you've written a lot about this, and people want to know how to fix their brain, and there are certain foods that actually act like medicine in the body. They're not just calories, they're information as we talked about. And so how do these foods actually affect your brain?

Dr. Amen: Well your brain uses 20 to 30% of the calories that you consume, so your brain is the most energy hungry organ in your body. So if you eat a fast food diet, you're going to have a fast food mind. So it's just critical to give it the nutrients that it needs and some of my favorite...

Dr. Hyman: Does this mean I can't get a Happy Meal?

Dr. Amen: In the short run, you're happy. We could talk about how increase in insulin, increases serotonin in the brain, which is one of the reasons it's addictive, that pasta is addictive. Because it raises your blood sugar and dumps tryptophan, the amino acid precursor for serotonin into your brain. And you're happier, but you're also fatter, and ultimately in the long run, you're sicker and unhappier. But it's one of the addictive qualities of simple carbs. But the foods I really like are blueberries, but they have to be organic because non-organic blueberries hold more pesticides than almost any fruit, and why do you not want pesticides? Because your gut has a hundred trillion bugs that are working

for you, they are really the soldiers in digestion and making vitamins, and you don't want to set off forest fires off in your gut, and that's exactly what pesticide laden foods do. So, but blueberries are awesome, and I'm a huge fan of chocolate. We actually make our own sugar free, dairy free...

Dr. Hyman: I've had it.

Dr. Amen: ... chocolate bars. And the reason we do that...

Dr. Hyman: Those little balls that you handed me, those little chocolate balls. The super food balls with cacao in it. Oh my God, they're so good.

Dr. Amen: And we have a coconut one as well for the healthy fat. The reason we make those, it's a symbol of abundance. Eating well is always about abundance not deprivation, and chocolate is great with antioxidants, it decreases cravings of course if you don't have sugar and milk in it, and increases blood flow to the brain. So I'm pretty excited. So now I have blueberries, healthy chocolate, we tell everybody eat from the rainbow. Which means put foods in your body of many different colors. Of course that does not mean Skittles, we're talking about natural colors. One of my favorites are red bell peppers because they have three times the level of Vitamin C as green bell peppers.

Dr. Hyman: So, no M&M's?

Dr. Amen: Avocados are just absolutely amazing for brain health for the healthy foods.

Dr. Hyman: They're shaped a little bit like that, the brain?

Dr. Amen: Well, either that or your testicles.

Dr. Hyman: I guess that's true.

Dr. Amen: So the big brain or the little brain. So while we're on that topic, a lot of people really don't get 40% of 40 year olds have erectile dysfunction, 40% of 40 year old males have erectile dysfunction. It's about blood flow. That means 40% of 40 year old males have brain dysfunction because they don't have flow in their body.

Dr. Hyman: Well they have low testosterone too, right?

Dr. Amen: And sugar lowers it. So if you get a sugar burst, it can lower testosterone by up to 25%. So I always say if you share the cheesecake with your honey at the restaurant, nobody gets dessert when they get home.

Dr. Hyman: That's good, that's good. And what happens is also testosterone is made from what? From cholesterol.

Dr. Amen: From cholesterol.

Dr. Hyman: It's made from fat. So what I've found is as I've gotten older, the more fat and less sugar I eat, like my testosterone levels are like 800. Which is like a 20 year old guy. I'm like, "Wow, that's pretty amazing," and I don't take anything. I don't take shots or anything. And I'm giving shots to guys my age whose testosterone levels are like 200 which it normally should be at least 500 by then. And they're feeling horrible. And it's really quite astounding how when you cut the sugar and you increase the fat, hormone levels get better, sex drive gets better, sex function gets better and everything that goes along with it.

Dr. Amen: Well, that's interesting, because there's been a new study out on statins that are associated with accelerated aging, and I think that's exactly right. People brag about their low cholesterol numbers and both you and I think that's just not smart. And it will go along with being not smart. Some of the other foods I love...

Dr. Hyman: Wait, you just dropped the bomb there. So statins are good for the heart they say, but you say they're not good for the brain, but are they really good for the heart?

Dr. Amen: Well, that's more your area, but I actually don't think so. I'm very concerned about all the people on statins like candy. There are actually some people recommending that teenagers who have cholesterols of 210 should be on statins, and I'm just like, "So where's the research for that that shows that that's going to extend their life? Especially when it's dropping testosterone levels," which I'm just a huge fan of testosterone, but not too much. It's very important for people listening, when you overshoot testosterone with, then you lose your empathy.

Dr. Hyman: You can't do that with...

Dr. Amen: And so your sex drive goes up, and empathy goes down. You can't do that with food. No, you can't do that with food.

Dr. Hyman: You can only do that with taking shots or pills.

Dr. Amen: Taking shots. But you have to be thoughtful. A lot of guys are like "Hey, if a little bit's good, let me do a lot." And you end up divorced, visiting your children and losing half of your net worth.

Dr. Hyman: Yeah, that's no good. And what statins and the brain?

Dr. Amen: Associated with decreased memory, and I'm just not a fan of that. And accelerated aging in neurons. So it's not good, your brain needs fat, it needs healthy fat. And your cholesterol levels actually become more normal when you get rid of the sugar.

Dr. Hyman: Yeah, that's pretty amazing. We had Ron Krauss on the Fat Summit, and he's one of the pioneers, researchers in cholesterol. And he talked about how most of the adverse changes in cholesterol actually came when people were on higher carb low fat diets. And they actually did an intervention and thought it would help, and they gave people a low fat higher carb diet because that was recommended by the food pyramid and 6-11 servings of rice, bread, cereal, and pasta a day. And their cholesterol got terrible. They had more dense small particles. They had high triglycerides, low HDL. So they thought they were going to help them, but they actually ended up harming them. They had to actually stop the study.

Dr. Amen: That's fascinating.

Dr. Hyman: It was fascinating.

Dr. Amen: And really, it goes with our experience that it's the sugar, not the fat that's hurting us.

Dr. Hyman: That's so great. So is there anything you want to share in the remaining few minutes about your work, what you're doing, what you're excited about next? What's on the horizon for you?

Dr. Amen: Well, it's this program Tana and I are working on called "The Brain Warrior's Way."

Dr. Hyman: Love that.

Dr. Amen: It's just the truth. You're in a war, and they're not just coming for you. They are coming for your children and for your grandchildren. New study just published in the Journal of Pediatrics that the clown and the king, so McDonald's and Burger King, they are effective when they offer toys for really

low quality food. Children beg their parents for it. So they're very effective. And the bottom two shelves in the grocery store, they are actually the most expensive shelves. Because...

Dr. Hyman: You have to bend down to see them.

Dr. Amen: Well, no, that's where the children, that's at child's eye level. So what they are doing...so it's the most expensive for food companies to place their foods there, because what they're doing is they're hooking the kids who will then beg for it from their parents. And because have two parent working families and parents feel a lot of guilt, they're like, "Oh well let me make them happy." And what they're really doing is they're not making the kids happy by giving them the crap. They're making them sick. So we're so excited and we have this cool messaging, "Are you a sheep or a sheepdog?"

Dr. Hyman: I've heard you say that.

Dr. Amen: So sheep are the flocking herd, they go with the herd. They live in denial, they're docile. Where sheep dogs, they are serious. They are mission driven. They are highly trained. And we want to create an army of people who love and care for their bodies and their brains and we're just so excited.

Dr. Hyman: When is that book coming out?

Dr. Amen: So it's going to come out next fall, and we'll have a show along with it. Although, in a couple of weeks my new show, "On the Psychiatrist's Couch," is coming out on PBS. It tested really well, so I'm excited about it. It's the big lessons from 35 years on the other side of the psychiatrist's couch.

Dr. Hyman: Oh, I love that, that's great. "The Brain Warrior Way" is a great concept because we need to be able to be warriors for our health because we are in a war zone, you're right. And it's hard to stay healthy out there. And you're amazing in terms of your prolific giving to us of all this great information about how to protect your brain, care for your brain, change your brain, wake up your brain, heal your brain. It's just fantastic to know you, Daniel, work with you and be on this journey together.

Dr. Amen: Well, thank you my friend. It has been joyful. So I look forward to seeing you again soon I hope.

Dr. Hyman: Yeah. We're going to do something together soon I know, in Saddleback. I'll see you soon.

Dr. Amen: Great.