THE MODEL HEALTH SHOW

EPISODE 876

Lose Weight, Reduce Inflammation, & Increase Your Lifespan With the Power of Fermented Foods

With Guests: Andrew Huberman, Dr. Suzanne Devkota, Ben Greenfield, Dr. Time Spector & Jessie Inchauspé

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SHAWN STEVENSON: Welcome to the Model Health Show. This is fitness and nutrition expert Shawn Stevenson, and I'm so grateful for you tuning in with me today. What's going on with fermented foods? There's so much science coming out right now about some remarkable benefits, but also this could be kind of weird. This is something that in our modern society We've kind of pressed to the side, we've stiff-armed, we've Heisman trophied fermented foods in many ways in our culture today. And so what I wanted to do was to be able to dig into the science, but not just from my perspective, to share some of the data from some of the top scientists and health experts in the world. So you're going to hear from one of the leading genetic epidemiologists, one of the leading microbiome research scientists in the world, one of the top biochemists, one of the most world-renowned nutritionists and more.

So you're going to get all these perspectives and hear some mindblowing facts about fermented foods. And specifically, we're going to look at how they impact weight loss, inflammation, and even our lifespan. Now to kick things off, you're going to hear from neuroscientist and Stanford University professor, Dr. Andrew Huberman. In this powerful segment from our conversation, you're going to learn how our gut bacteria influence our body weight, why fermented foods are the best foods to improve the health of your microbiome and more. Enjoy this first segment from the one and only Andrew Huberman.

ANDREW HUBERMAN: The gut microbiome, we have a lot of species of little microbes living in our gut, which sounds gross, but they actually, if they are the right ones, they really help us. So much so that people who are obese versus people that are lean, if they swap their microbiota, they actually can do this, they can swap out. which sorts of little microbiota are living in the gut. Then people who are heavy get lean. And so you go, well, and they tend to crave healthier foods. So this is really interesting. And what it shows is that the gut is talking to the brain in a way that is below our conscious detection. I know this sounds crazy, but there's tons of data to support this. Now, one of the things that's very actionable that work at Stanford in the Sonnenberg lab has been shown to benefit this whole system is to keep a healthy gut microbiome and the best way to do that turns out to not, is not to take probiotics, which by the way, are very expensive and often have the wrong species of probiotic in their wrong bacteria, but rather to eat two to four servings of low sugar

fermented food per day. So sauerkraut pickles, not the ones loaded with sugar, but natto. Kimchi.

These are foods that throughout history have been used for various health benefits. So they tend to lower inflammation. This has now been well established, lower inflammation, which is good for the brain and body. They can promote healthier eating. They can promote a healthier dopamine system. So to speak that leads people to pursue healthier foods. So obviously there are people are overeating, but part of the reason they're overeating is not even their own bad conscious choices is that their brain has been tricked into overeating. And so I think there's the physical. Exercise component, of course, but I think that we need to acknowledge that the system and now I really sound like the system with respect to processed foods is definitely rigged.

And there's a whole thing around this that that makes financial sense for, um, and I don't think conspiracy here. When foods can spoil on the shelf, they can't be listed as a commodity. And so there's a huge financial upside for being able to create foods that can have a long shelf life and that are loaded and therefore loaded with emulsifiers and disrupt the gut microbiome. There's a huge incentive for putting so called hidden sugars into foods, even hidden false sugars like saccharin into foods, not to lower the caloric count, but because that actually can trigger these mechanisms, these bad mechanisms too. So I think we need to acknowledge that the number one thing that all of us can do is create a healthy gut microbiome.

Well, there are three things. One is recognize that there are these subconscious things that what you think you're eating, it might not actually be what you're eating and that it's changing your appetite. So trying to, that raises the second thing, which is most people should. probably try and eat whole foods. So if you, you know, eating foods that you prepare and then, in non-processed foods. And then the other one is basically to create a healthy gut microbiome through the ingestion of two to four servings of fermented foods, which isn't much. It's a few spoonfuls of sauerkraut or a pickle, you know, once or twice a day.

Most of these foods are pretty tasty anyway, but most of us aren't consuming enough of those foods. And I think that the two to four servings of fermented food Per day, I think one reason I like that recommendation is the science points to it as beneficial and also it's something to do as opposed to something to not do. I mean, there's a lot of restrictive practices that are associated with losing weight, et cetera. And those are hard because they're restrictive. But the addition of something that hopefully you know, I think most people like some form of fermented, low sugar fermented food. You know, the gut microbiome is so fascinating and it's an area that you can just think of part of you, it's like a little community.

That talks to the neurons that talk to your brain and really control your appetite. Some people start eating fermented foods and they lose their appetite for really sugary carbohydrate type foods. They just lose it completely. They just, for whatever reason, they don't crave that stuff anymore. And, it's remarkable, but it makes sense. And I mean, the microbiome is involved in so many things. I think it's. Sleep being the fundamental layer of health and all the light and stuff that goes with it. But I think that the gut microbiome is right up there in the top five or so of critical aspects of our body that we all absolutely need to take care of.

SHAWN STEVENSON: Alright, I hope that you enjoyed that first segment with Dr. Andrew Huberman. We've got so much more in store for you. Up next, we've got Microbiome Research Scientist. I'm talking about, she's in the lab. Alright, she might be the most active researcher in all facets of the human microbiome at Cedars Sinai here in California, and her name is Dr. Suzanne Devkota. And in this segment, she's going to share why the biggest benefit of fermented foods are not the live cultures themselves, but something that the live cultures do for us. So check out this next segment from the incredible Dr. Suzanne DeDevkoda.

DR. SUZANNE DEVKOTA: Every culture does have some fermentation process that is kind of a staple, or was a staple at one point. And from an anthropological standpoint, it's pretty fascinating. And there's, you know, fermentations in an excellent preservative, you know, can keep things for a long time. So there are reasons for that, how it developed in part for that,

those purposes. But, fermented foods are going through a huge renaissance right now and during the pandemic people were fermenting everything, pickling everything, creating, you know, I mean it was a thing to do being sourdough bread's a fermented food to a degree. And you couldn't find yeast anywhere during the pandemic either.

So there, there is definitely a movement in fermented foods, which I support wholly. I think fermented foods are, an excellent, excellent food source to support the gut microbiome. But why I think they're an important food source is not because they have live bugs in them, which most of them still do have live cultures in them. It's because that it's kind of a living food and in the process, you know, I talked about that the gut bacteria are making all these metabolites, all these chemicals that go to the rest of the body. Well, your fermented food is laden with those chemicals because the bugs are in there fermenting, doing their fermented things.

And if you were to do a mass spec analysis of the liquid fraction of kombucha, it would be thousands of chemicals in it. And we've actually done this analysis with actually U. C. L. A. Did it as part of a project that I was involved in. And so, to see what is in a bottle of kombucha blew my mind and convinced me that these fermented products are potentially superfoods. They all have, you know, it's, it's unregulated. We don't know how, what the concentrations are. We don't, every food is made kind of wildly and batch to batch variation, things like that. But what is the postbiotics is what we call them. The chemicals produced by the bugs have major Bioactive effects, you know, that we have only scratched the surface of. So fermented foods, awesome, take them. There's really no downside to taking fermented foods unless you have some functional GI issues sometimes. If you have IBS, you might be sensitive to fermented foods. But otherwise, eat them. Pick your favorite fermented food of, you know, in your cuisine and just go for it.

SHAWN STEVENSON: That is a paradigm shifter right there. It's not necessarily just the probiotics that is what we're focusing on. It's what they're making.

DR. SUZANNE DEVKOTA: Yeah.

SHAWN STEVENSON: You know, these postbiotics, which goes back to what you started with, you know, the things that are making in us for us and what we can get from these fermented foods and beverages.

DR. SUZANNE DEVKOTA: Yeah.

SHAWN STEVENSON: And also with the, with the fermented food or like a vegetable, for example, we're getting a prebiotic kind of substrate. As well, that could potentially be helpful for other microbes that are not in that food.

DR. SUZANNE DEVKOTA: Yeah, you're getting the whole thing, you know, yeah.

SHAWN STEVENSON: That's pretty cool.

All right, up next in this masterclass on the power of fermented foods, you're going to hear from New York Times bestselling author and nutrition expert, Ben Greenfield. In this segment from our conversation, you're going to hear a surprising way that fermentation unlocks certain nutrients. You're gonna learn the connection between fermented foods and the glorified "blue zones", which is a little bit more controversial now because it's coming out that some of these blue zones are using birth certificates for people who aren't even alive anymore, right?

So it just keeps tracking them as if they're still living. But this is not the case all over, with all the blue zones and all these places where there are a lot of centarians. And that's what the blue zones are really noted to be. These prime places on planet Earth where people live to be to a hundred years or older. And so there's still a lot of sound evidence on these particular places. But he's gonna share the connection specifically between fermented foods. And the Blue Zones, plus a variety of overlooked fermented foods that you can add to your diet today. Check out this next segment from the one and only Ben Greenfield.

BEN GREENFIELD: There's a lot that you can learn from the Blue Zones data. The thing I like about it is that because you're spreading the observations around the planet from Loma Linda to Sardinia to Nequoia to Okinawa, you're seeing A less myopic focus on low carb, high

fat, high carb, low fat, vegan, paleo, carnivore, whatever. Even though it does seem to be skewed a little bit towards plant based diets as far as being the champion of a lot of these blue zones. Which is interesting, because if you look at the actual data, there is a pretty high consumption of everything from meat, particularly fermented meat products, fish, eggs, grass fed, grass finished meat, fermented dairy is huge in a lot of these cultures. And so I'm not sure if it's, you know, politically driven or what. But I think that there is Sometimes a little bit of an impression that people get that you got to eat vegan or plant based to be one of the blue zones. And the fact is they are eating meat and dairy based products, but they're far different than a Beyond Burger or a Big Mac. Like we're talking about fermentation and dry aging and wet aging and you know and and dairy from naturally raised animals. And even the consumption of a high amount of organ meats, you know, rich in life extending glycine versus the potentially, you know, age accelerating amino acid methionine.

And so there's a lot there, but when you step back and look at common characteristics of the blue zones. You do see things that no matter what diet you eat are going to pop up over and over again. For example, a high intake of a wide variety of herbs and spices and even plants, right? Not a strict plant based diet, but eating sometimes over a hundred different varietals. So the amount polyphenols and flavanols and even so called plant defense mechanisms that you're getting exposed to in small amounts on a regular basis to induce cellular resilience. You see that. There are some people who think that many of these populations live long despite their grain intake, not because of it.

When you step back and look at the polyphenol content, even some of the hormetic compounds, some of the nutrient density in properly prepared grains, I do think they offer an advantage. And there are some super grains out there. For example, Dr. Jeffrey Bland, the father of functional medicine, now raises a grain called Himalayan Tartary Buckwheat. It's one of the only flours that we now cook with because it's so nutrient dense. It's naturally gluten free, has less of the concentrated cellular defense, I'm sorry, plant defense mechanisms in it and it's a fantastic grain. You know, we use a lot of Palouse red wheat too, which is kind of like an ancient grain like einkorn.

And when I use terms like ancient grains, that means many of them have not been bred for high yield crop or genetically modified, meaning they're less capable of irritating the gut and they're less concentrated in lectins, like gluten, for example. So the source of the grain that you're fermenting is important, but fermentation in general is, it's an old school method of preparing food in a manner that predigests the food that unlocks nutrients and that even in some cases concentrates bacteria that are beneficial to the gut. I've been making yogurt for the past three years on my counter. You know, you can use a yogurt maker. You can use a food dehydrator in a pinch. You can use an oven on a very low setting and it simply involves. And in my case, I like coconut milk I don't do that well with dairy. We have goats. I do okay having some of the goat milk and goat yogurt every once in a while, but I do better with coconut milk.

So I use coconut milk. I use these little tablets from amazon called biogaia. It's a lactobacillus ruderi, and I crush those up and I put it into the milk, and then I a little bit of sugar and I put that in a food dehydrator yogurt maker for about 36 hours. When it finishes I stir in gelatin to make it really thick like jello. And I always have a batch of yogurt and then you know you go to irwan you pay like 30 bucks for a mason glass jar of like really high end Coconut yogurt or goat's milk yogurt or whatever. I'm making this for less than a buck for an equivalent batch at home. So I constantly have a batch of yogurt going and there's amazing studies on this L reuterized strain. For example, real culprit for gas and bloating in a lot of people is small intestinal bacterial overgrowth SIBO. And Dr. William Davis, who introduced me to this recipe has seen eradication of SIBO by consuming a cup of this yogurt over a four week period of time, helps you sleep better, helps produce oxytocin.

That's one example. I also make water kefir, which gives you nice, beautiful, slippery poops every morning. And it's fantastic for the gut and it can be used as a cocktail alternative in the evening. I got dirt cheap water kefir grains from a company called cultures for health. Only have to buy them once, cause as long as you don't let them die, you can just keep your batch going over and over again, and they grow like chia pets, you can give them away to friends. All I do for my water kefir is I have a really big mason glass jar on the counter, and I put my water kefir grains into it. And then I pour, I like to use coconut water. Some recipes call for

water and sugar, but I find the composition of coconut water, not only does it have a good enough amount of sugar to feed the water kefir, but I like the flavor.

It's like a richer, creamier flavor. So I usually, I use this Once Upon a Coconut Company because their cans are lower in BPA and they also do these, they have larger plastic containers as well. And I do about five cans of that in the glass jar over the water kefir grains. Keep that on the kitchen counter for 48 hours until when I stir with a spatula and put my ear to it, it's nice and fizzy. If I leave it out longer for that, I'll get a little alcoholic. So you have a fun time with your key for a few, leave it out for too long, but I like about 48 hours. And then I strain the kefir grains out and I put them in a little sugar water in the fridge to save them for the next batch. And I put the water kefir in the fridge.

And that's the equivalent of about four of the 6. 99 bottles of water kefir you get at Whole Foods or whatever. But I make, that's like a quarter for me to make all of that. Maybe a little bit more if you're using coconut water, but it's not that expensive. So that's another example. And then, you can also use milk kefir. You're doing exactly what I just described, but you use milk kefir grains and like goat milk or cow milk instead of water or coconut water. I like to use that as a meat marinade. It also really makes eating organ meats taste fantastic. If you want to make like crispy, like Some of the best like southern style fried chicken you've ever had you actually soak the chicken in kefir for 24 hours and then take it out and shake it up in the paper bag with the egg and the flour and everything. And it just makes the chicken taste amazing because the kefir enzymatically degrade some of the chicken draws some of the gamey flavor out makes the inside moist the outside crispy. And then finally, you know, there's the sourdough bread, which is, you know, the process of sourdough fermentation actually pre digests a lot of the gluten, breaks down a lot of the phytic acids and enzyme inhibitors that are in a grain.

And you get this nice, crispy, chewy, gut friendly bread that a lot of people who have gluten issues tend to digest a lot better. If you have celiac disease, you just It's still canning grains. It's just how you're genetically hardwired. But the sourdough process of fermentation makes bread way healthier. And Oh my gosh, when like my wife makes a new batch of sourdough bread twice a week, and I just slather that thing with like. bone marrow and honey and sea

salt and use it as like a delivery portal for olive oil and squash and soups. And it just, it's some of the best stuff ever. I will literally have like sourdough bread with a bunch of honey and peanut butter and salt on it for dessert. I mean, it's just, it's amazing.

SHAWN STEVENSON: All right. I hope that you enjoyed that segment with the one and only Ben Greenfield. Now he mentioned some stuff that we just tend to not think about in our culture. He mentioned fermented meats. What? Again, like, if you think about it, the dry aging, the wet aging, and things like that that are related to steaks, if you're an aficionado of steaks, for example, but we don't really think about certain cultures. For thousands and thousands of years have been fermenting Meats. Obviously we we think about dairy products and plants and things like that, but we don't think about meats in that same category, but fermentation has been used as a time tested method of preservation. And also, you know today sometimes scientists, food scientists are using tactics to try to like emulate fermentation and very often that can lead to using chemical preservatives that are not good for human health.

And so what if there was a way to utilize certain foods that humans have been using for thousands of years, but with more traditional methods of preservation. And that's exactly what the folks at Paleo Valley have done with their grass fed meat sticks. Instead of using synthetic preservatives, they use a method of fermentation. And so these meat sticks are 100 percent grass fed and grass finished, 6 grams of protein, no sugar, No artificial preservatives. Paleo and keto friendly. Checks all the boxes. They've got some incredible flavors from the original to the teriyaki. They've even got new buffalo chicken sticks as well. And Paleo Valley truly does go above and beyond and that's why we keep their snacks here at the studio.

For our guests and for our team all the time their grass fed meat sticks and also their superfood bars as well. So highly recommend checking them out head over to paleovalley.com/model. That's P A L E O V A L L E Y.com/model and you're going to get 15 percent off automatically at checkout. Again, they got some of the very best supplements and snacks for your family. Again, they've got some of the very best supplements and snacks for your family. Head over there, check them out. Paleovalley.com/model for 15 percent off.

And something else that been said that was very interesting that you wouldn't expect to hear from such a prestigious nutrition and fitness expert.

I've known been for a minute. All right, Ben is the most self quantification, obsessed testing stuff. person I've ever met. I've tested some things in my life. All right, but this guy has done the absolute most. If, if you've ever heard the term doing the most, usually that's applied to something negative. All right, when it comes to health and fitness testing, Ben does the most. And so when he mentioned this recent obsession really with fermented foods and traditional methods of making sourdough bread and things like that, and also slathering it with honey, right? He did mention olive oil as well, but honey in particular.

So you're just gonna you're doing with the sweetness, huh? Mr. Fitness guy Ben. Yes, it's because Ben knows some things and honey cannot even it is a Disrespect to call honey a sweetener. It's a disrespect All right, I'm enough Honey is so much more and I've got the proof All right, not only is it so Rich in antioxidants and enzymatically active that honey can literally stay, "good". It can stay edible for centuries. Alright, there is something magical about it. It's naturally occurring that way. There's no synthetic chemicals and preservatives. It's very different from what's done with the Twinkie to make it stay for a couple of decades. There's something very special about honey. Unlike other sweeteners, raw honey specifically has been found to improve insulin sensitivity.

A recent study published in the peer reviewed journal, Nutrients, detailed how raw honey intake can improve fasting blood sugar levels, improve lipid metabolism, and reduce the risk of heart disease. Additionally, the scientists noted that the vast antioxidant and anti inflammatory properties are some of the qualities that make honey, so remarkable. And in case you didn't know there's a lot of fake honey out here on the streets All right. It's not Jessica Alba. It's a look alike Now that's a deep cut. All right, Jessica Alba starred in the movie *Honey Dancing*. All right, but there's a lot of fake honey Out there, and there's actually something that was called the Honey Gate Scandal.

And it found that nearly one third of the world's honey that's being sold is adulterated with other sweeteners, or, completely fake. Alright, so you've got to make sure that you are

getting your honey from reputable, trusted brands, and the very best honey. The very best honey that I've ever had, is the Superfood Honey from Beekeeper's Naturals. It also has some of the other wonderful compounds from the hive, the propolis, the royal jelly, the pollen. It's incredible. So it truly is a superfood honey, and I highly recommend checking them out as well, we keep this stocked, alright.

I always have my superfood honey around, just go to beekeepersnaturals.com/model. That's B E E K E E P E R SNaturals.com/model and listen, use the code model. And right now you're going to get up to 30 percent off. All right. Truly incredible beekeepersnaturals.com/model. Use the code model for up to 30 percent off. All right, let's stock up on the good stuff, whether it's for our snacks, our sweeteners, we can upgrade things. And now to drive this conversation back to the power of fermented foods. We're going to hear from genetic epidemiologist, microbiome specialist, and best selling author, Dr. Tim Spector. He's going to be sharing why fermented foods have a beneficial impact on your taste buds. He's going to talk about the connection between fermented foods and inflammation, and more. Check out this next segment from the one and only Dr. Tim Spector.

DR. TIM SPECTOR: If you expose people, early on to these healthy foods, they will adapt. May start a different point, but nearly everyone can adapt. And I took a look, I'm a big fan of kimchi, you know, the Korean spicy cabbage. And most Americans, you know, wouldn't immediately say, Oh yes, kimchi for breakfast. That's great. And there's a huge variety about whether they spiciness or the chili or whatever. But every Korean kid gets given kimchi as soon as they're weaning and they spit it out a couple of times. You know, everyone, it's a big thing in Korea. They show these photos of little babies spitting out their first kimchi.

But they keep giving it and in the end they all love it. So I think although we've got this big diversity, we can train everyone to eat. You know, in a healthy way, we don't have to immediately say, Oh, let's just give them baby food. And this rubbish and, you know, we shouldn't have children's menus. You know, they, they should start to learn early age. You know, what good food tastes like.

SHAWN STEVENSON: The kimchi rite of passage.

DR. TIM SPECTOR: Yeah. Well, perhaps we should all start, you know, doing the same thing, you know, cause they've got something right. You know, they're about the only sort of rapidly developed country that is stayed healthy and is not obese. And because they've kept this food culture going. And this amazing culture of having kimchi at virtually all their meals, which is a probiotic And you know talk about it because it's prebiotic and probiotic It's full of microbes and it also preserves their food culture, so really important all levels. And gets kids very early on to be able to taste bitter and sour and, spicy food were, you know, that steers them away from that sort of sweet, gooey, dairy flavors that, you know, we've gone for in the West. Just keeping kids on breast milk for life, essentially.

SHAWN STEVENSON: Yeah. There is something remarkable that happens with that fermentation process. I actually noted a study in my last book, eat smarter. They had test subjects to consume either the kimchi, the fermented version, or the ingredients that hadn't been fermented, you know, the cabbage and the radish, the carrot, whatever the case might be. And, it was so fascinating that there was a significant improvement in metabolic health when they were given the fermented version. There's something about those microbes and the interaction with our cells, our human cells, that it really points to the fact that this is something that we need.

And when I used to work at the university gym, I would ask people it was after a couple of years, but because I'm working at a university, I'm working with people from all over the world. And eventually I started asking people like, what kind of fermented food do you have in your culture? And every culture had cultured foods, every single one, right? And even that word, culture is there. And I thought that was so fascinating, you know, and.

DR. TIM SPECTOR: What did the Americans have?

SHAWN STEVENSON: Pizza rolls, you know, so yeah, that's the thing. And if we can start to borrow, because we're all, it's, you know, America's known as this melting pot, you know, and start to borrow from traditions that have interacted and or our, our relatives, you know, our close ancestors. That's one of the ways I found much more success when help with helping people to get well. It wasn't having them do what I think they should do, but where, where,

what's your lineage? You know, if you're from this particular region in Kenya, Nairobi, and your ancestors were eating goat, you know, nyama and, you know, chapati, or if you're from Ethiopia, you have this fermented bread. Right. Maybe let's, let's add some of that in, you know, and they're like, you know what? I really love my grandmother. Let's add some of that in a little bit less you know pizza rolls.

DR. TIM SPECTOR: Yeah. There's an idea of the Second World War changed a lot of things and before Second World War sauerkraut was really quite a big thing in the US. And because it was associated with being German, it was like banned, you know, like the freedom fries.

SHAWN STEVENSON: Typical American.

DR. TIM SPECTOR: Yeah. They just said, okay.

SHAWN STEVENSON: We kick it all out the window.

DR. TIM SPECTOR: We're not having that, you know, at Nazi stuff, we've got to, you know, we've got to ban it and it's not American to eat it anymore. And sadly that, that's a bit of the legacy because it was pretty big, apparently in the, you know, in the thirties and forties, people were making themselves. It was, you know, it was a thing everyone could make in their house and I embracing these other ferments as other countries have done really important. And I think the science is now showing us that this isn't just folklore that these were healthy. There have been some really good experiments very recently.

There was one done in Stanford by colleagues of mine. And just in six to eight weeks, people having three, three to four portions of fermented foods a day dramatically reduced their inflammation levels in their body and really had a big impact on their immune system. And this is one of the first really detailed studies that's done this properly, which sort of matches the big population studies. But I think it is really important that people understand how important this is, you know on top of a healthy plant based diet to have some of these foods regularly is really vital. And most of human history we've done this and people don't realize how much fermented food You know, we used to have before we invented the refrigerator. You know, it was, it was the way to preserve food and keep it going and get these regular

supply of microbes into us that I think probably we evolved to eat and, you know, probably why beer was invented, you know, as big at the same time as bread, you know, because we were using these yeasts and, using their products and they had this really powerful effect on our immune system.

So I'm a big fan of fermenting and I think everyone should should learn how to do something about it. It also, I think, always keeps coming back to the same thing that to be, you know, the best bet is to eat a diverse diet. It's to have as many different plants as you can. It's to have these fermented foods with all kinds of different bugs in them. These probiotics. It's to sort of throw everything at, at you. Increase your sense of smell and taste and try everything, you know. It's that variety. Variety is the spice of life. And I think that's what we, we keep coming back to is, is the way to deal with our complexity.

SHAWN STEVENSON: Let's go to the smell gym, you know.

DR. TIM SPECTOR: Let's work out.

SHAWN STEVENSON: Let's work it out. So this has been incredibly fascinating and you know, just to unpack this and if you could, because I think folks are going to feel motivated to focus on improving the health of their microbiome. What are three things that people can do in their own lives to support a healthy microbiome?

DR. TIM SPECTOR: Well, the top three things you can do. The first is to have a diverse, a series of plants on your plate every week. And we did some studies a while back with the British and American Gut Project that showed 30 plants a week is the sweet spot. It's not as tough as you think, because that includes nuts and seeds and herbs and spice mixes. And it's quite achievable if you just, you know, have a few hacks. Like, you know, I have a jar of nuts and seeds mixed that gives me about eight to ten plants in a go. So, you know, you can get around it. Second thing is to try and eat brightly colored plants. We haven't discussed this much, but the polyphenols in the, in the plants, these sort of phytochemicals, the defense chemicals that all plants have to some extent, but some have lots of them, and they tend to be really brightly colored ones, and they're ones that are also bitter.

And they, those defense chemicals end up being really good for our gut microbes. They're like rocket fuel for your gut microbes. So, that's why coffee's good for you. It's not the caffeine, it's the polyphenols in there. And that's why dark chocolate is good for you. It's why nuts are good for you. And it's why olive oil is so good for you. But also, berries and, and other plants like that. Then fermented foods, we discussed, having small amounts regular and often to boost your immune system really important and boost your gut health. And we've, I think we evolved to eat them and we've just forgotten how to do that. And try to eat as many different ones as you can.

Don't just have the same yogurt every day. Mix it up, get some of these other, you know, I call them the four K's. The, you know, kefir, kombucha, kraut and kimchi, just think of different ones you can have in small amounts. They're the top three and I'd add in two more. One is we haven't really discussed it, but, giving your gut a rest. So time restricted eating is actually beneficial for your gut microbes. So if you can ideally leave 14 hours when they're not quite working, they really respond well metabolically. And so, we've done some big studies of this, you know, looking at over a hundred thousand people and generally people eating in a 10 hour window and having 14 hours not eating. Most people do pretty well on that and that helps their metabolism. And finally, you know, cut out as much as possible ultra processed food.

SHAWN STEVENSON: Alright, I hope that you enjoyed that segment from the incredible Dr. Tim Spector. We're going to keep this conversation going. And next up, you're going to hear from world renowned nutritionist and best selling author, me, Shawn Stevenson. And you're going to hear this segment from one of my all time favorite episodes where I did a master class on the relationship between food and stress. How certain aspects of food and eating food can increase or decrease our body's stress load. And it was a lot of fun, a lot of science that we covered. But in this particular segment, you're going to hear about the connection between fermented foods and our mental health. You're also going to hear the surprising truth about pickles. All right. So enjoy this segment from one of my all time favorite episodes, a masterclass on food and stress.

One category of foods that strangely enough has been found to help to reduce stress is fermented foods. Several studies are now affirming how fermented foods and probiotic bacteria can reduce stress and improve mental health. For instance, a study cited in the journal psychiatry research titled Fermented Foods, neuroticism and Social Anxiety Denoted How Animal and Human Studies Show That Fermented Foods have the potential to reduce symptoms of anxiety.

What? How? Well, a lot of this chemistry, a lot of our neurotransmitters associated with our mood are located in our gut. There's this interface between our gut bacteria and these enterochromaffin cells, enteroendocrine cells that are producing and storing the chemistry that affects our mood. And we know there's this profound gut brain connection that has recently been detailed in a tremendous amount of peer reviewed data. So, this is what's happening. We're bringing in these friendly complementary probiotics and they're really helping to support that environment because that's what it's really about is having a healthy environment that supports a good mood. And also, of course the reduction of stress. What are some of the most popular forms of fermented foods out there?

Well, we've got Obviously, sauerkraut. We've got kimchi. We've got pickles. Now you gotta make sure that they're actually real pickles. Because with real pickles, that's gonna be in the refrigerated section of the grocery store, by the way. And this is utilizing brine. So it's gonna be salt, water, and it is fermented. There's a trick with the food industry where they can basically create a pseudo pickle by using vinegar. All right. So it's like making the pickle twerk its way forcefully into becoming a pickle. All right. Versus the pickle twerking its way to being fermented on its own free will. All right. We want freedom of twerk out here for our pickles for our fermented foods.

I don't know why I use that analogy, but I did. It just happened, right here. So keep in mind, we want to make sure that we're going for real pickles when we're going for pickles. And also, you know, there's a variety of different yogurts. There's varieties of also fermented breads as well. There's so many different things that different cultures around the world look to. There's fermented shark up in Iceland. They eat fermented shark up there. All right, it's a thing. So, a variety of fermented foods can be great for our waistline, but also for what's happening with

our mind, our ability to process and modulate stress. And it has a lot to do with what's happening with the gut brain axis.

We're at our final segment and our final expert in this masterclass on the benefits of fermented foods. And to close things out, we have Jessie Inchauspé. She's a biochemist and best selling author. And she's affectionately known as the glucose goddess. And in this segment, she's going to share the incredible ferment that can radically reduce blood sugar spikes after a meal and even reduce the excessive release of insulin as well. And your body simply cannot burn fat when insulin is active, and that's a fact. Insulin is our body's primary energy slash fat storage hormone. So if we can get insulin to relax and tamper down, it could be a game changer. So this is super valuable stuff. Check out this final segment with the one and only Jessie Inchauspé.

JESSIE INCHAUSPÉ: So the science is really interesting. Vinegar, it turns out, if you have a tablespoon of it in some water before a meal, you can reduce the glucose spike of that meal by up to 30 percent and the insulin release by up to 20%. You can reduce it without changing what you're eating afterwards, just by harnessing the power of this molecule called acetic acid, which is in vinegar, that has a powerful effect on your glucose levels. And so in week two, I give people lots of different ways to try out this hack for themselves. You know, it doesn't have to be just vinegar in water. Most people find that not very appealing. I love it now, but you know, to each their own. And you can have it as tea, you can make little mocktails, you can use it as a dressing on your food. And just by adding this very small little ingredient, you can have a powerful effect on your health.

And interestingly, Vinegar's been used for centuries in countries like in Iran, where they just know it's a healthy thing to add. In the 18th century, vinegar tea was prescribed to people with type 1 diabetes. So, culturally, we've known these things. For example, the breakfast. We've known that breakfast should not be dessert. Like, we've known breakfast should be a regular meal. But now, we've lost touch with a lot of this stuff. And now, because we have the science to show us how it actually works in our body, we can decide to bring those things back, and they're really, really powerful.

SHAWN STEVENSON: Now, when you say acetic acid, it immediately makes me think about apple cider vinegar. So, is that one of the vinegar choices?

JESSIE INCHAUSPÉ: So, any type of vinegar works. Any type. White wine vinegar, red vinegar, balsamic, rice vinegar, cherry vinegar, whatever, and apple cider vinegar. Apple cider vinegar, or ACV, is the most popular one, but they all work the same for a lot of people. ACV is just more palatable. They like to taste more, but you can use any vinegar you want, except avoid the very syrupy balsamic glaze. Which is really not vinegar anymore, it's more like sugar with a bit of vinegar in it. So as long as you're not using that, you can use whatever you want.

SHAWN STEVENSON: Alright, I hope that you got a lot of value out of this episode. If you did, please share it out with your friends and family. You can share this on social media, of course. Take a screenshot of the episode and tag me. I'm at Shawn Model on Instagram or, of course, you can send this directly from the podcast app that you are listening on. Write through a text to a friend or family member. We are just getting warmed up. We've got some amazing masterclasses and world class guests coming your way very, very soon. So make sure to stay tuned. Take care, have an amazing day, and I'll talk to you soon.

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