

## **Why You Get Hungry, How Gut Bacteria Matters & the Perils of Food Industry Manipulation – Amy Shah, M.D. – #1029**

Dave Asprey:

You are listening to The Human Upgrade with Dave Asprey, and today's podcast is going to be about one of my favorite topics of all time, the second F word. Now, if you're a new listener, like there's more than one F word? Yeah, there are. Turns out there's four of them that drive your biology. The first one's fear, second one is food. But this isn't about what you eat because I've kind of written a book about that. I've interviewed the world's top people on that, although there will be some of that in here. This is going to be about hunger, and I'm interviewing the author of a really interesting book that was so dialed in, and it's called Why Am I So Effing Hungry? Geez, you actually got the original F word in there. That was really cool. The author is Amy, or I say Dr. Amy Shaw. Amy, welcome to the show.

Amy Shah, M.D.

Thanks so much for having me. Such a pleasure.

Dave:

Why did you write about hunger instead of a diet?

Amy:

I think we've all realized that we don't... You can have the best of intentions, you can diet all you want, but diets don't work and they keep you addicted. They keep you hungry. They keep you unhappy. I feel like it's time to lean into our body signals and really kind of try to understand what's happening here. When I realize that, oh, a lot of this is coming from our gut and our gut bacteria, now I don't have to starve myself from all the things I want to eat. I have to eat the things that my gut bacteria loves and I won't be hungry anymore.

Dave:

Okay, so your first book, when you were on the show the first time, about 200 or so episodes ago, which is quite a while actually, because we're at about 1100, so what, two, three years ago, 818 and before that on 257. But you talked about why am I so effing tired? So there's an energy side to it, and now you're talking about the hunger side of it.

Amy:

Yes.

Dave:

You have an unusually dialed in view on this, this is my own internal biases talking, because they seem so intimately tied. And so now you're looking at feeding your gut bacteria properly so that you don't get hungry.

Amy:

Exactly.

Dave:

Am I kind of summarizing your entire book in one sentence?

Amy:

Yeah. It's feeding your gut bacteria so that you're not effing hungry all the time. And the concept is so weird because most people, except for the people who listen to this, are just, in America, in the modern world, are eating for taste, for convenience, for comfort, for emotional reasons, for social reasons, for economic reasons. So when you say, wait a second, the way you feel right now, if you're happy or sad, if you're hungry or full, if you're motivated or just in a funk, is actually coming from your gut, it becomes like, whoa, I have control over this. I can do things differently in my life to actually feel more motivated, or happier, or have less cravings. So that to me was the big message in the research that I thought, whoa, people need to know about this because it changed my life. It changed the lives of so many people, and I know that if you know this information, it can change your life.

Dave:

Well, you have an unusual ability there because we've also talked in past interviews about fasting, about toxic mold, and it just seems like we're circling around these same areas, and it really comes down to this weird conversation that's happening inside your body that's invisible to you about hunger, and then you're just like, why am I thinking about tacos? Why am I thinking about tacos?

Amy:

Right. And we live in this world that we're inundated with thoughts about food all the time, and not just food, just cravings in general. Craving Instagram, craving gambling, gaming, porn, and food.

Dave:

What if you combined all those into one mega food porn Instagram channel? Wouldn't that be like the world's best channel?

Amy:

Oh, actually, yeah. Think about it. Okay, so the strongest, no, I'm serious. The strongest dopamine trigger you can ever have is gambling, because it's an intermittent reward. So you lose, lose, lose, lose, and then randomly you win, and then you get this big explosion of dopamine and that neural pathway just keeps you going for more. So yeah, if you combined all of those, gambling, porn, gaming, Instagram, food, can you imagine?

Dave:

But I'm doing this. Why are these even funny? Because we all know that something in us wants that. What do you think that part of us is? Is it like the unconscious? Is it like your gut brain access? What is it?

Amy:

So what I think it is is that our body has this mechanism that keeps us motivated and fit for survival by keeping us, when we get something that has a lot of dopamine release, like say you see a beautiful tree of vegetables or fruit or whatever it is, and you eat it, or you eat a piece of fresh meat, your body gives you a dopamine hit, but then it quickly dissipates and it keeps you going for more. The way dopamine works is it's going to dissipate, and now you're going to want it even more the next time, and it's the

way that we are built so that we will keep working. We will keep finding a mate, we'll keep building homes, we'll keep finding food. And so that's why it's so powerful in motivating us to do more of that behavior. So it can be a good thing and it can be a bad thing.

Dave:

I love the perspective. In my latest work, I talk about the laziness principle, which is related to that. We talk about motivation and the body, it wants you to eat everything and it wants you to kind of lay around. What is the relationship between doing what your body wants, which is laying on the couch instead of exercising? If you do that, what does that do to your cravings?

Amy:

Yeah, so this is a great question. We've now known that the gut bacteria, if you are eating a ton of sugar and you're not moving, the things that grow in your gut are going to tell you to stay still and eat more sugar. If you start to move, say you go for sunny walk, you just force yourself for three days to go for a sunny walk, change the way you eat, stop eating the sugar, eat more healthy foods. Landmark study 2014 showed that in three days, you can rapidly change your gut microbiome to gut bacteria that now will send motivational signals to you to walk more, to go get sunlight more, to eat the foods that it likes. So it can start with just taking action and, say they read your book and they're like, all right, I need to start to do these things, but I really don't feel like it.

Amy:

But you just force yourself to do it, and then all of a sudden you start to get motivation. I don't know if you like mushrooms. So for example, I started to eat mushrooms. Just so happened that we got a bunch of mushrooms, fresh mushrooms, and I ate a bunch of them, and then all of a sudden, three, four days into it, I started to crave mushrooms. Not joking. I'll be like, I really feel like eating some mushrooms right now. And it's like your gut bacteria that you kind of fostered over the last three to five to two weeks will start to ask for the things that you did. And so it can go both ways. You go on a bender, you go on this five, 10 day total binge, and now it's really going to be hard to eat healthy and to move your body because you've kind of changed the milieu in there. It's that fast.

Dave:

If the bacteria are the things causing the cravings, we should be able to control the bacteria to make ourselves crave what we want. You could probably even punch yourself in the kidney by making yourself crave kale.

Amy:

Yeah, exactly. You can crave, there are actually chocolate craving bacteria, so they know that there's people who just love chocolate. It's that gut bacteria that's specific to their microbiome that makes them love it, and we know that there's bacteria that will help you have better cravings and help you have worse cravings. The biggest thing we found out is that it's not even specific bacteria that we should be looking at at this point. It's almost like the more diverse our bacteria is. It's like the world filled with all kinds of shapes and sizes and different types of bacteria. That's actually the elite microbiome. That's the one that is shown to be the most anti-inflammatory, give you the happiest chemicals and help you live the longest. And so you want diversity. So 30 different foods a week is something that they found in the studies, because the spices, the teas, the coffees, the different things that you're putting in your microbiome, you're helping grow some of that different bacteria.

Dave:

Why do germ-free mice walk around rippling with muscle and being able to eat anything they want with no insulin resistance and a lower chance of cancer and all these things? And these are mice that have no gut bacteria. Are they really our friends?

Amy:

I think they're both our friends and our foes. So you know what I think about, a lot of us have been to the Amazon or to a rainforest and you know how you see the trees and they have the roots and the mold is growing on them, or the fungus, and you don't even know where the tree ends and the grass and the mold begins. And that's really how our microbiome is. It's not like this separate thing. It's literally intertwined and in all the crevices, and it's a thick, thick layer of bacteria that are concerned about their own survival more so than ours. And so, you can take that cockroach analogy. They just want to survive and reproduce, and so they will ask for the things that will help them do that. So you can have, when they transplant the microbiome from depressed individuals into germ-free mice, those mice become depressed, transplant schizophrenic gut bacteria to mice. They start to act in a way that the researchers are able to tell that those mice got the schizophrenic gut bacteria.

Dave:

Are you saying I shouldn't make out with schizophrenic people?

Amy:

You can.

Dave:

That's what I heard you say.

Amy:

No, you can make out with whoever you want.

Dave:

All right. So for those of us who are single and dating, should we be like...

Amy:

Oh yeah, okay. So single and dating people have to know that when you share bacteria with others, you are catching their good and bad germs. So if they're really healthy, they're really motivated, they're really happy, yes, go for it. Exchange germs all you want. But if they're someone that you don't really think is a great person, or happy person, or motivated, or person that you want to be like, then you probably don't want to be sharing a lot of germs. I mean, that goes without saying, but kissing, sex, touching, exchanging food, sharing food, all of it.

Dave:

Is that why healthy looking people generally are perceived as more attractive? Do you think there's some automatic system in humans-

Amy:

Yeah, of course

Dave:

Selecting them, they look healthy, so they must have good bacteria so they're okay to kiss.

Amy:

Yeah, I mean there's multiple reasons of that. You can detect people that are more fertile and more able to, and on the female front, someone who would be able to provide for you and be paternal. And then on the male front, there's differences. But they're definitely, we have all these mechanisms, including our gut bacteria that senses people and what people you want to be around. So for example, you take identical twins, so genetically identical, and you look at the microbiome and their microbiome looks more like the people that they're sleeping with or the people that they're spending time with in their home than each other.

Dave:

Wow. So you're definitely motivating me to take a close look at my poop. We'll put it that way. Not that I didn't already, I mean, I'm a butt backer.

Amy:

Yes, exactly. And be around the people... We always say this, but when you think about it from the gut bacterial realm, be around the people that you want to be like. Don't spend your time with the toxic, negative, sad, unmotivated, unhealthy person.

Dave:

That's something that might be triggering for some people because you think, well, I don't look healthy because I have x thyroid or whatever. So there are obviously caveats to this, but as a general principle, if you spend more time with healthy people, there are studies that show that you tend to pick up their bacteria. There's the article in Wired magazine, had one of the best headlines I've ever seen, because you just had to click it, and it said, you are surrounded by a cloud of sweat and poop bacteria, and there's nothing you can do about it, or something like that. You have to read it. And what they were saying was that even two hours after you leave a room, if they sample the air, they can identify that you were in there just by your unique bacterial signature in a cloud around you. How is that?

Amy:

It is so crazy. And yeah, like you said, it's almost motivational for people, I think, because if everyone, all of us are aspiring to be better at something or many things, I'm aspiring to be better at many things, athletics, metabolism, brain health, all this stuff. You can surround yourself with the right things, eat the right things, do the right things, be with the right people, to actually change that entire milieu and change yourself.

Dave:

Incredible.

Amy:

The things you crave. I always thought, I don't know about you, Dave, but when I was growing up, I thought I craved what I craved, or my life was the way it was just by circumstance, just by, that is who I am. Oh, I'm the person who craves Doritos, or I'm the person who is the X, Y, and Z. But what I realized after seeing all the signs is that it's very malleable, so much more so than we know in the lay health world.

Dave:

So I will agree with you, your gut bacteria is doing a lot of this, but in your book you say, if you have hunger and cravings, it's not your fault. But in my book I say, if you have hunger and cravings, it's absolutely your fault. So tell me why I'm wrong.

Amy:

Okay. I'll say, the reason why I say it's not your fault is that a lot of us crave things and we are beating ourselves up about it.

Amy:

The reason why I say it's not your fault is that a lot of us crave things and we are beating ourselves up about it. How many women, especially, right? We grow up in diet culture and we're like, chocolate cake is bad, alcohol, margaritas are bad. And you still want it, you still have it, but you're like, I'm so bad for wanting this. And what I'm trying to say is that it's not your fault for wanting those things. That is human wiring. And the world we live in, it's even harder.

Amy:

Most of us aren't craving an orange or an apple because we live in a world that's engineered so that we'll crave things that are highly processed and give us the biggest dopamine release. And so that's the angle that I'm taking it as, because I think for me, I will say, oh, why do I always crave chocolate? I told myself I was going to quit chocolate, and now I can't keep my promise because my body and mind are working against me and there's this whole battle, and that's what diet culture is, right? This is bad. That's bad. You are bad. And then not really understanding the science behind it.

Dave:

Gotcha. So definitely no need for guilt and shame. The reason I say it's your fault is because I love saying things that are only slightly inflammatory, and it makes me happy because my inner seventh grader is excited. But I really, truly believe that if you're listening to the show and you're having cravings, it's totally your fault. Because there are things you are doing that are causing the cravings. The fact you don't know what they are, it's not like you chose it, but it's like if you accidentally drive into a fence, it was an accident, but you still drove into the fence. It was your fault, right? You didn't have to drive into the fence. Maybe you could have put your phone down or whatever.

Dave:

So, with cravings, when I went through your book, I'm like, you know what? Yes, it's not your fault from a guilt and shame perspective, but it is within your control and you don't have to do it anymore. And that's super empowering to be able to just realize that. But okay, so let's say we hack our gut bacteria. We all do what they did in South Park and steal Tom Brady's poo. Who was the one they were all stealing from.

Amy:

Yeah. Yeah, that's right. Okay. Yeah.

Dave:

Right. Okay. Now we all have the best biome ever. And there's some other things that you outlined in your book that I thought were really noteworthy. So there's the physiological response. I went straight to that, because I'm just kind of into it, what's our body doing that we're not noticing and how do we make it do what we want? But what are the other two big problems, aside from physiological responses?

Amy:

Psychological. Our psychological responses to food is such a huge part of why we eat what we eat. I mean, that's why the subtitle to the book is *Why We Crave What We Crave*. Because we crave things sometimes, not because we're hungry. Cravings and hunger are two separate things. Sometimes we're craving things because of emotional needs, or we want to fulfill the dopamine, and serotonin, and oxytocin in our bodies, and we're using food as the easiest way to get there. But really it's we need connection, and we need rest, and we need real nutrients, not the things we actually go for. And so alcohol and food is one of the biggest. They say traditionally, statistically, women tend to turn towards food, men tend to turn towards alcohol and drugs as emotional crutches for needs that aren't necessarily hunger at all.

Dave:

It's so important that you say that. And I had both of these when I was going through just all of my weight loss and all that. There were times when I had a profound physiological craving that wasn't actually hunger. It was gut bacteria and other stuff. I'm going to die if I don't eat right now. That's actually not real, but man, it sure felt real. And I knew that if I was feeling lonely, which wasn't that uncommon, that I would want to eat. And I believe the vast majority of my obesity was not that. It was much more toxic mold, estrogens, thyroid function, all those things and bad gut bacteria, and years of antibiotic use, and the list goes on and on. But some of it, I'm sure was psychological. That's why I ended up going into a cave for four days. So I'm like, I'll be lonely and I'll be hungry, but there's no food and there's no people, so I'm just going to have to deal with this.

Amy:

That's hard.

Dave:

Well, yeah, I ended up writing a book about it. I didn't know I was going to write a book years later. But it was an experience that showed me, it showed my body more than my mind what I was capable of. Because I'm like, wow, I have all this energy. I actually feel good. And I didn't die when I was lonely and I didn't eat. So it felt like that was a reset for me. So maybe that was how I dealt with psychological response was by exposure therapy. What are the best ways that you've seen, as a doctor and in your book, *Why Am I So Effing Hungry*, how do you deal with the psychological hunger? What are the tools for that?

Amy:

Yeah. At first is really, I think what you hit the nail on the head is just recognizing that what you're actually craving is not necessarily food, but it's comfort and people, or some kind of stress relief. So I'll give you the best example that I used to do. I would go to work, I would see patients, I have kids, and I was rushing, had a commute, and I'd come home and I'd be so exhausted emotionally, mentally, physically that all I wanted is something comforting. Food. I want a comfort. That's why they call it comfort food. I wanted something to soothe me almost from the stress of the day. And that's why so many people end up eating foods that they don't consider nutritious at that time when they come home, or they have a drink, or they have candy or whatever, cookies, latte, whatever it is, or sugary latte is what I mean.

Amy:

And what I realized when I was parsing through it myself is like, wait a second. I'm coming home and I'm just exhausted mentally and physically. It's not that I'm hungry even because I ate a good lunch and I could probably push myself till dinner. I just need something comforting and soothing and I need to do something for myself that gives me a little bit of relaxation. So serotonin, for example, for people who don't know, is serotonin is our chill, relaxing, happy hormone, whereas dopamine is our adrenaline, motivation, happy hormone, or more like a motivation hormone.

Amy:

And so you're kind of craving that serotonin at the end of the day. And so the carbs help you make more serotonin in your brain. And that's why, I know for me, I was trying to comfort myself. So I realized, oh, there's other ways you can get a serotonin boost that don't necessarily require junk food, right? Sunny, going for a walk, getting some sunlight, doing sauna out there, going for a workout, having time to de-stress in whatever way that you do, is going to help you bump up that serotonin level.

Dave:

The idea of circadian rhythm for your gut bacteria, going now from psychological back to physiological, one of the reasons that jet lag is so rough on you is that your gut bacteria get jet lag and then they start making more toxins. And that's why activator charcoal sometimes helps with jet lag, because the gut bacteria gets soaked up, or the gut bacteria toxins get soaked up, so you don't get the same negative effects, which is pretty funny.

Amy:

Yeah, love that. And also when you travel, I know you travel a lot, but you'll notice your hunger, your ghrelin, so our hunger hormones is very cyclical, it's on a circadian pattern. And so you'll notice you're not hungry at the times of the new time zone for meals. You're hungry at your old time zone for meals because your ghrelin is still jet lagged. And so you'll notice, oh my God, I'm starving in the middle of the night. But then when it was dinner time, you didn't feel like eating at all because our hunger hormones are just a reminder for us to eat and a way to prime our bodies to get ready to eat. But it's not like an absolute, you don't have to eat when your ghrelin tells you to eat. It's just on a regular pattern that goes up and down as the day goes on.

Dave:

I find that when I'm traveling, I can reset my circadian rhythm however I want, as long as I use fasting, the light glasses like the true darks, but very importantly, meal timing. So I eat a couple hours before I want my body to think it's time because the gut bacteria really rely on food timing as a primary signal,



more so than light. So I'm hitting my brain with the light and my gut bacteria with food timing. So if I eat a ton of protein at what my body thinks is 4:00 AM but what I want it to think is 7:00 AM all of a sudden it goes, oh, it must be. And then it shifts really quickly. And I wrote about that, not in my most current book, but the one before that I think. But it's really interesting because you're getting to the root in your book. This'll be what? Your second New York Times best seller?

Amy:

Yeah. My second. Yeah, second one, hopefully.

Dave:

Oh yeah. And when does it come out?

Amy:

February 28th. I think the same day as yours. Right?

Dave:

Oh my God. You realize we're going to be on the list together because my-

Amy:

I know, I'm all for it. We were saying that let's do a live and celebrate both. I love that.

Dave:

Yeah. We'll do a live, in fact, you know what? All right guys, here's what I want you to do. I want you to go to wherever you like to buy books, and very likely that's an online place. And then I want you to buy *Why Am I So Effing Hungry?* And get *Smarter, Not Harder*. Even if you already bought one or the other, buy them both. They'll be paired up. So then when the week comes out, every time someone buys Amy's book, they'll be like, Hey, you should buy Dave's book. And vice versa. This is how authors actually help each other. This is real.

Amy:

I actually think, Dave, I don't know about you, but I actually buy multiple books together because I always think that if I'm on Audible, I like to read Audible. I mean not read, listen to Audible on my commutes. I like to have a couple books that I download at the same time so that I have ample listening when I do go, because I don't have time to search through which ones I want. So when I do download, I just download a couple at a time.

Dave:

It's smart. I do that. Anytime someone says, you should read a book, and I think they're right, I just buy it right away. And I might not read it for six months, but then it's in my queue. So that's a good thing. But it's amazing how powerful it is to say, oh, people buy this book also buy this book. And I love it. And I know your mind reasonably well because we've had a few interviews, and I've read your books, you know how to think about hunger, and cravings, and energy in a way that's pretty unusual in the world. And it's one that really resonates well with me. So if you guys like my book, you'll probably like what Amy has to say. It's not the same, but it's the same line of thinking and inquiry to get to these things.

Dave:

And you read about something that I really haven't touched on in my books. So we talked about physiological causes of hunger, which is in *Why Am I So Effing Hungry*. You talk about the psychological response, stress, loneliness, boredom, getting angry or whatever. But there's a third big problem that I just haven't done that much about. What's the third big reason people are hungry?

Amy:

Are you talking about, I forget what I call it in the book, but the food industry?

Dave:

Societal response.

Amy:

Yeah, the societal, like the food industry. I thought you talk a lot about the food industry in other ways, but-

Dave:

I did say that they're harming us, but I don't talk about how that's actually a cause of hunger, specifically. Because societal response is different than you ate this thing and it punched your gut bacteria in the face, and then they got mad at you and gave you toxins, so you craved sugar. I talk about that, but you're more nuanced. So talk to me about what the food companies are doing that affects society.

Amy:

Well, think about it this way, whether you believe in conspiracy or not, and I think I know what side of that you are, food companies, when I was in nutrition school, there was labs where people would come and sit and they would be connected to electrodes and food companies would come in and test young college students, their brain activity, to create a food that had a bliss point, that gave you so much pleasure, but didn't give you the fullness signals of that you don't want to eat it anymore. So for example, I'll give you, if you love blueberries, and I love blueberries, and you eat a whole carton of blueberries, but you're not going to go for a second carton, you're going to feel really good. You're going to love it, but you're not going to go for that second one probably. Whereas with the foods that they engineer, they can make it so you feel really good, but you keep wanting more and you can't stop until the package is gone.

Amy:

And a lot of us can relate to this. So they're engineering foods that override our biological signals. And I think for me, it's like that's really disturbing to think that there's this whole industry, the entire food industry, that is trying to override our body signals, that we have, we have lots of signals. We have CCK, we have neuro peptide YY, we have leptin, we have all these things to tell us that we're full, that we don't need, but these are not working. And you can see in America, in the modern world, that we cannot get a handle on this obesity problem. And I honestly think that a lot of this is because we are eating a diet, 75%, ultra-processed.

Dave:

Is brown rice protein an ultra-processed food?

Amy:

Brown rice protein powder is, yes.

Dave:

Wow. So maybe more people listening, especially if you're trying to not eat meat, or eggs, or dairy. You're probably eating a lot of ultra-processed food that was sold to you for a very high price per pound as being healthy, even though it might have had some limitations to it.

Amy:

I definitely think that more people, when they learn about this, some of the things that I talk about in the book, because the dopamine boosting foods, the amino acid rich foods, I think that if you're really trying to improve your gut health, then things like probiotic dairy, yogurt, cottage cheese, cheeses, they can actually be really beneficial. And I think a lot of them, a lot of people don't eat them because they unequivocally think that dairy is bad for you, because someone told them at some point. And I think for me, even I had to think, oh, well, I couldn't tolerate dairy for a long time, but that was because I was drinking processed milk, these Frappuccino or latte type drinks. And really, if I eat probiotic cottage cheese, I'd feel great.

Dave:

It's really interesting because there are a substantial number of people where milk of any flavor from cows, especially A1 cows that ate grains, and corn, and soy, it's actually inflammatory by its very nature because of what it does when it interacts with cells. And that's an immune question and a genetics question. And then there's another group of people, which is most of us, were a highly processed milk protein, like skim milk powder, is probably, in fact not probably, I could show you lots of studies, is highly, highly inflammatory. But is a cottage cheese going to be good for you? Well, if you're not sensitive to dairy and the cows ate grass and it doesn't have glyphosate residue and omega six oil from the cow's diet, it's actually a pretty darn good food.

Dave:

So it's a very nuanced question, but you may say it works for you. You give me cottage cheese and I will go into this zombie mode where you can give me espresso, nicotine, modafinil, and cortisol, I've tried this, at the same time, I cannot make my brain move and I can't pay attention. I'm drooling on... It's like it's a drug for me. It's like taking opium. But not everyone has that.

Amy:

Yeah.

Dave:

So you have to know is it a trigger food or not? And I will say everyone, I don't think skin milk is good for you, but doesn't mean milk is bad for you. And it's like, it's such a...

Amy:

Yeah, it's such a nuance. When I was vegan for a while, I've grown up vegetarian, but we were lacto-ovo vegetarian. So for a while I just couldn't tolerate milk. So I just took out dairy in general. And I can say, unequivocally, I was eating more processed foods because I didn't have the time, or energy, or knowledge, or willpower, or whatever to make a ton of really healthy vegan foods. And so I thought that I was doing my body a favor. But when you look at it through the gut brain immune lens, that's not necessarily the best thing to do.

Dave:

Okay. I'm with you there. And that's probably the hardest one. I suggest that people eliminate dairy protein for a little while and see what happens. Especially if you're with gluten at the same time.

Amy:

Yes, I agree.

Dave:

And then all of a sudden if the lights turn back on, well, maybe you have a problem. But you also could say, well, I'll just eat coconut yogurt that has no protein at all, and that's not going to end well either. So that's the hard part for me.

Amy:

Yeah, it's a very nuanced conversation. I think that everyone does need to take dairy and gluten out for a little while. And often what happens to my patients is that they feel so much better because you're just not able to eat the regular food that they used to eat. The gluten and dairy were in the pizza, and the burgers, and the fry, the processed snacks and all that stuff. So part of it is just that you clean up your diet. And then you can start to decide, like me, is it nuanced? Can you not have milk, but you can have some probiotic dairy? Or is it that you just can't have dairy, like you? And that's a nuanced conversation that you have to have.

Dave:

Okay. I like that. And I think that's really valuable for listeners where it's okay if you like milk and milk likes you back, but that doesn't mean you want ultra-processed milk. You probably want less processed milk, the same as everything else. Right. Okay. I think that might have cleared up some confusion actually for a lot of people.

Amy:

I think so too. I think it's not like, you don't have to fall into a camp. When you're really looking at it from the inflammatory gut lens, I realize, wow, not only is there a wide range of people who will tolerate different things, but it's not as clear cut anymore when you look at it through that lens. It's not like, oh, this diet is better, or this diet is better. It's just like there's things that the gut microbes love. They love certain foods, they love omega-3 fatty acids. They love polyphenols, they love glucosinolates, they love protein, high protein foods. There's even this hypothesis that really makes sense, it's that really the reason we are overfed and hungry all the time is that our brain has a protein threshold, and we need a certain amount of protein to turn on our satiation hormones. But when we're eating ultra-processed, it never happens because all that food is so low protein that you keep on having hunger because your body's like, wait, I didn't get enough nutrients.

Dave:

When you talk about enough nutrients, I've really gotten into the role of depleted nutrients in causing hunger and cravings. There's a chapter or two in my new book on that. It's not the focus of the book at all. It's sort of like maybe if you have enough minerals, all these other hacks will work is my whole message in that chapter.

Amy:

Yeah, yeah.

Dave:

But it feels like lacking of minerals can cause these profound cravings. Almost like when women are pregnant, you want these weird foods, that's your body telling you, eat the anchovies, you needed whatever was in their skeletons, or you needed some more DHA or whatever. So what is the role of mineral depletion in hunger?

Amy:

Absolutely. Even if you think about, the best example I can think of off the top of my head is omega-3 fatty acids. So we know that omega-3 fatty acids set off a satiation hormone called CCK, closest to kinin. Closest to kinin, goes and tells our brain through our gut, like, hey, we're full. And omega-3s not only feed that good gut bacteria, they feed our brain the things it needs. It also has this anti-inflammatory effect. But one of the biggest things that we miss is that it signals our body's CCK to say, you're full and you're satisfied. And so if you want to be fuller and more satisfied, you need to increase your omega-3 intake in your foods. And if you're eating a standard American diet, there's no way that you're getting enough omega-3 fatty acids without supplementing it.

Dave:

In your book you talk about CCK, and this is something that I talked about a lot in the Bulletproof Diet, but it's been like 10 years since I wrote that book. So define CCK for our listeners who may have forgotten or didn't hear the first 500 episodes. Define CCK. Tell me why it matters and what to do about it.

Amy:

Yeah, cholecystokinin, that is the one that is a satiation hormone. One of the ones that makes you feel satisfied, is similar to, a lot of people know, leptin, as a common hormone that makes us feel full, but CCK and neuropeptide YY also make us feel satisfied. And you can really boost that omega-3 fatty acids, it's actually the exact topic that we're talking about, is one of the best ways to boost that CCK and make us feel fuller and more satisfied so that we're not always fiending for snacks all the time.

Dave:

In your book you actually say omega sixes and omega threes raise CCK. But it feels like butter didn't get any love there. Doesn't saturated fat raise CCK also?

Amy:

It does. It does. Butter also does.

Dave:

Are you discriminating against saturated fats?

Amy:

I'll put in a little addendum for you. Fat is such a nuanced conversation. Exactly like you said with dairy. Can you eat fat? Yes. Can I eat fat? Yes. Can someone who's had a triple bypass surgery eat all the fat they want? No. That's my view.

Dave:

I think you have a point there. And the type of fat they eat affects the size of cholesterol, or the size of LDL anyway.

Amy:

Yeah, the apoB. Particle size.

Dave:

I don't know that we even know the right answer there.

Amy:

No, we don't. We don't. But we know that, for example, I know that genetically, and because of my South Asian background, I have a higher risk for heart disease. That doesn't mean that I'm going to eat differently now, but if I ended up going down that path, I'd probably change. I don't discriminate against fats right now. I mean, I discriminate against fats, but I don't not eat fat because I'm worried about heart disease. But if I was in a position where I just had a heart attack, I would be much more nuanced and careful about the types of fats that I chose.

Dave:

It's super weird too because people in, say North India, they eat like 26 times more saturated fat than South India, but it's also colder and there are genetic differences. And so how much of it's environmental versus diet? Nobody knows.

Amy:

Isn't Nepal where you first discovered the Bulletproof, the...

Dave:

The Yak butter tea?

Amy:

Tea, yeah.

Dave:

It was actually in Tibet.

Amy:

Oh, Tibet. Yeah.

Dave:

I was at a monastery in Nepal and I took a bus from Nepal to...

Amy:

Right. I remember that story from our first podcast, many years ago.

Dave:

I will never forget that. That lady half my height gives me a bowl of this kind of foul tasting stuff and I drank, I'm like, I got my brain back. And whether that was the CCK thing or some of the other things around structured water, I don't know. But it feels like there is a role for fat and you don't want too much of it.

Amy:

I think most of us are eating, not most of us, but most people in America, have to understand the right type of fats. And I think you do a really good job of educating people on what fats they should be eating.

Dave:

I think it does vary by person, but I do know that excessive amounts of Omega six is, even from avocados, is probably not good for you in the long term. Okay. There's some other stuff. This is a question that comes from the Upgrade Collective, our live studio audience. By the way, if you're listening, you could have been asking questions this whole time, just go to [daveasprey.com](http://daveasprey.com) and check out the Upgrade Collective. You could be a member, it's not expensive and you get a ton of time with me. So this is actually from Heidi, and I'm going to add a couple more variables that she talks about. But she says, do histamine, salicylate, and glutamate, and I'm going to say, and oxalate sensitivities create or affect cravings?

Amy:

Yes, absolutely. Gut bacteria actually make some of these. As we know, glutamate is a classic example. It will travel to the brain and block the happy feelings that you were going to get. And now they're blocked. Absolutely. And what I find with histamine is a very nuanced conversation, also because sometimes as you heal your gut, the things that used to create histamine in your gut change and they no longer create issues like the food. Some people come with really poor gut health and everything creates a histamine response. And as they heal their gut, they're able to eat the foods that they couldn't tolerate before. And so that's a little bit different, but just the toxins absolutely can toy with your cravings and your mood. And they often come from that gut bacterial milieu.

Dave:

I believe that's one of the reasons that a lot of people eat a kale salad and then they're hungry half hour later. I think oxalate has something to do with it. And the MSG, as an ultra-processed ingredient, we know it causes hypoglycemia. It's just how it works. And hypoglycemia will make you crave dessert to the point that, and I think you already know this, is mostly just to share with the audience, that restaurants that use MSG in their preparation, even if it's not labeled as MSG, they have a 30% bigger sales because people buy dessert and they buy an extra drink because the MSG hacked their hunger

right there in front of them. And the chefs doing this, they're not intentionally causing that. People like it, because they eat more. I just make what people like.

Dave:

So, it feels so innocent, even though a proper restaurant meal, if you can find one, and it's becoming easier, is it doesn't have the bad fats, it doesn't have the weird flavor and enhance it doesn't have ultra-processed sauces added to it. And imagine you eat that and you're full, and you don't necessarily want dessert, and you're not hungry for four hours. And that leads to my next question. After you eat a proper meal, how long should you be able to go without feeling hungry?

Amy:

I mean you shouldn't have to snack all the time. I think that the snacking thing is such an American, and again, the last 70 years, it's become like you won't find an American without a drink, like a coffee drink, or a snack, or some kind of crutch of food, anytime, anywhere. If you look to office meetings, you look at people throughout the day, people aren't able to go more than two hours without food. And I think that's a problem.

Dave:

It feels to me like histamine is a major, major unacknowledged source of hunger cravings. And I know you just mentioned it because you treat patients with it. And after this last three years of that which shall not be named because algorithms still punish you for saying it, but the incidence of mass cell sensitivity, in other words, extra histamine sensitivity, is much higher. So there's people now who respond to foods they didn't respond to before. And I find the first sign of histamine response to food, if it's not sneezing, coughing or tightening your throat, it's just dramatically strong sugar cravings. And I feel like it's your body going, I have massive inflammation. Give me energy to deal with this emergency right now.

Amy:

Yeah.

Dave:

Do you think it's gotten worse?

Amy:

Yeah, absolutely. I think overall our mental, so I call it the big picture, the brain immune system, the gut. That big picture has deteriorated even more so in the last few years. And it has accelerated, what was already happening, but just accelerated it because of the various factors that we were dealing with.

Dave:

That makes sense. Is it okay to use Claritin to have less food cravings?

Amy:

So I think she's referring to a histamine based food craving. Well, yes. If you are trying to treat it in the emergency setting, an antihistamine like Claritin could help in the immediate setting. But really, the long-term goal here is to reset that gut bacteria so that it's not going to create the histamine. It's like



putting a Band-Aid on the situation. So yes, in the immediate setting, if you need it, yes. But it's not going to solve the problem, if that makes sense.

Dave:

Got it. So if you're responding to everything, there might be a case for taking a broad spectrum antihistamine that doesn't make you sleepy, because that can let your system calm down. And I'm seeing tens of thousands of people who've tried the protocols I've proposed there seeing noticeable results in just being less reactive to the world, but also in having less cravings. Because there's nothing worse than eating a super healthy meal, and then as soon as you're done, the meat was not exactly that fresh. It had some bacteria based histamine in it. And right afterwards, if I don't have some ice cream or some kind of food right now, and I actually think the right thing to do is to have carbs during that. Because it's an acute crisis and it's your body actually asking for something it needs to clear the glutamine, or to clear the glutamate, or for getting rid of the histamine inflammation. Is there a case for having dessert when you're having a profound craving because there was a chemical in your food?

Amy:

Yeah, I guess you could say there, it's almost like treating a hangover with alcohol, in acute setting, it's probably fine, but that's not what you want to use as your crutch every time that happens. I always think of this analogy, this imagery of you getting up, dusting yourself off and that person on the white horse who's coming to save you, you see them coming in the distance. You're like, oh, thank God I'm, I'm going to have help and somebody's just going to save me. And then as they get closer, you realize that person is you on that horse and you are going to have to be the one who actually saves yourself. And so I think, in all aspects, and including gut health, immune health, just health in general, we have to realize we are going to have to take some personal responsibility for making ourselves the healthiest we can be. Because nothing, no one, no pill, no savior can come and fix the problem.

Dave:

Wow. Well what a great way to close out the show, Amy. Your new book is Why Am I So Effing Hungry? Your website [amymdwellness.com](http://amymdwellness.com). And thanks for continuously over the past, geez, you were on episode 200 and something, so that's got to be like seven, eight years. You've just been pushing on this idea that there's a reason and that we're all feeling frustrated. So I like your titles. I like what you write. I like how you think. So just thanks for continuing to put good information out there in the world.

Amy:

Yes. And likewise, thank you so much for having me on. And this was such a fun conversation, as always.

Dave:

Upgrade Collective, thank you for your questions. And for our listeners, it's really a good idea to read Amy's book. You should pick it up. And while you're at it, get Smarter, Not Harder. And this is just an ask, you don't have to do it. The show is free for a reason. But there is knowledge in her book that you're going to want, especially if you have hunger and cravings all the time, which can take over your life. They did for me. And Smarter Not Harder is worth your time as well. So when you listen to a show over and over, whether it's Amy's show or mine, and you just get value, the way you say thanks is you pick up the book and leave a review. Kind of the same way you tip of barista. So my thanks in advance for supporting my work and helping other people find it, and supporting Amy's work because it's actually good work. I'll see you all in the next episode.

Amy:

Thank you so much, Dave. Take care. Bye.