

Balance365 Episode 184 Transcript

ANNIE BREES (INTRO)

Welcome to Balance365 Life Radio, a podcast that delivers honest conversations about food, fitness, weight, and wellness. I'm your host Annie Brees, along with co-founder Jennifer Campbell. Together we have a team of personal trainers and nutritionists who coach 1000s of women daily and are on a mission to help women feel happy, healthy, and confident in their bodies on their own terms. Join us here every week as we discuss hot topics pertaining to our physical, mental and emotional well-being with amazing guests. Enjoy.

ANNIE

Jen, we're talking about sugar.

JEN CAMPBELL

We are.

ANNIE

There's a lot of misinformation about sugar myths. And we think people deserve to know the truth.

JEN

Yeah, we do.

ANNIE

And we've got a lot of information to cover.

JEN

We do. Yeah.

ANNIE

Should we get into it?

JEN

Yeah. Let's do it!

ANNIE

All right. So tell me, what is sugar and why are we talking about it?

JEN

So when I say sugar, most people are thinking of the white stuff that we add to coffee, or baking or whatever we do. But that's just one type of sugar actually. And there's actually many different types of sugar. And a better term is probably sugars.

ANNIE

Sugars.

JEN

Sugars, yes. So let's zoom out for a moment and go from big picture to little picture so we can help everybody understand where table sugar fits in with all sugars. Sound good?

ANNIE

Let's do it.

JEN

Okay, so our bodies need fuel for all of our bodily functions, right? We exercise and move, of course, but we also digest food, have menstrual cycles, we breathe. All those things require energy, and we get that energy from food. And food is made up of three macronutrients: protein, fat, and carbohydrates. And our bodies love all three. But carbohydrates are the main source of fuel for the body. So our bodies break down or convert the carbohydrates we eat into glucose, which is a simple sugar. That's our body's preferred energy source. So you've probably heard the terms, complex carbs and simple carbs.

ANNIE

Yeah.

JEN

Right? So those are the two main types of carbohydrates. But both simple and complex carbs will be converted to glucose by our bodies. But they have a few key differences like chemical structure, what they're packaged with, how long they take to digest all of that. And so, Annie, what have you heard about complex carbs versus simple carbs?

ANNIE

Simple carbs should not be consumed, you should try to only consume complex carbohydrates if you're even going to consume carbohydrates at all.

JEN

[Laughs] Right.

ANNIE

That's what I've heard. That's not what I do. That's what I've heard.

JEN

That's the word on the street, isn't it?

ANNIE

Yes, that's trending. Unfortunately. [Laughs]

JEN

[Laughs] So complex carbs, their chemical structure is long, complex chains of sugar molecules, as well as starches and fibers. Complex carbs take longer to digest because they're more complex. And because they take longer to digest, they raise blood glucose levels slower. And they're typically less sweet than simple carbs would just be a kind of a quick way to differentiate, not always, but a little guideline. So an example of complex carbs would be like whole grains, quinoa, buckwheat, beans, lentils, peas, oats, brown rice, vegetables.

ANNIE

So those are the, that's the group of carbohydrates that people are often encouraged to eat. Right?

JEN

Yeah. Yes. And then simple carbohydrates. Their chemical structure is they're made up of one or two sugar molecules called monosaccharides or disaccharides. Simple sugars include fructose, glucose, galactose, lactose, sucrose, it sounds like a nursery rhyme. [Laughs] Maltose. [Laughs]

ANNIE

A lot of ose-s.

JEN

Yes, and simple carbohydrates are easy to digest because they are simple. They are one or two sugar molecules. And because they digest quickly, they also raise glucose levels very fast and they typically taste sweeter than complex carbs. So, examples of foods with simple carbohydrates, fruit actually, dried fruit, fresh fruit, fruit juices, jam, cereals, syrups, maple syrup, honey, table sugar, of course, which we talked about cakes, cookies, chocolate, dairy products, wine, and beer.

ANNIE

So this is, like you said at the beginning, when people are talking about sugar and a lot of the myths and the information that comes along with sugar, they're usually talking about this.

JEN

Yeah, yeah. And so table sugar, which we mentioned at the beginning, and what most people think of when they hear sugar is actually a disaccharide, called sucrose. And sucrose is made up of two monosaccharides, which is fructose and glucose.

ANNIE

It's like a little Latin lesson is that what this is?

JEN

[Laughs]

ANNIE

That's where you get the disaccharide.

BOTH

[Laugh]

JEN

So, we eat, and the carbs are broken down into glucose, and you might have eaten even a complex carb, but that's going to get broken down into glucose. And glucose is released into the bloodstream. And as our blood sugar level rises, our pancreas releases a hormone called insulin. Insulin moves sugar from our blood into our cells where it can be used for energy. How was that?

ANNIE

You did a great job.

JEN

Simple enough? Easy -

ANNIE

Yeah.

JEN

- to understand? Good. If you're listening and this like nutritional science doesn't really excite you or rev your engine, that's okay. We just wanted to provide like a baseline of information about what we're talking about. Right? And we're gonna get into some of the morality and the myths, but just hang with us here, right?

JEN

Yeah. Or if you're a major nutrition nerd, you might be thinking that I simplified it too much. But I mean, our job here is to, it's minimum effective dose over here, right? Just how can we understand this? So of course, excess energy we know like glucose is also stored in our muscles and liver to be used for energy later, but it also an excess amount of energy is stored, can be stored as fat right? So added to the reserves for down the line, if you ever need it, like, if hit a famine or something.

ANNIE

This is why you, did you grow up - well, you weren't in team sports in high school, but we always had like spaghetti night before athletic events. Like because we needed these carbs.

JEN
Yeah.

ANNIE
We are carb-loading for our moderately intense basketball game on the JV squad.

BOTH
[Laugh]

ANNIE
Was it necessary? I don't know. Was it team bonding? Sure.

JEN
I think, too, it's just like, I mean, as somebody who, I love kind of nutrition and human evolution, and I just think that's so interesting, but really understanding that these are very helpful systems in our body, right? So we today live in food-abundant environments, or I mean, not everybody does. But if you live in an industrialized nation, and you have food security, then food is abundant to you. Whereas we evolved, and why we are where we are today, is because our bodies are so great at finding energy, consuming energy, and storing energy for later if we need it.

ANNIE
Smart cookies.

JEN
Smart cookies, smart bodies these are. And so next question is, are there good and bad carbs? And we kind of touched on this with Annie and that a lot of us have been taught that there are good and bad carbs. And you can look anywhere and everywhere on the internet, and you'll see complex carbs are the good carbs and simple carbs are the bad carbs and avoid at all costs, right? But if you've been around for any amount of time, you will know that at Balance365 we really try to stay away from moralizing food. In fact, moralizing food is one of the biggest predictors of weight loss failure. So we don't do good and bad around here. And it's probably a more helpful, a more helpful way of looking at carbs or sugars on a spectrum of more nutritious to less nutritious, knowing that we also don't push that you eat the super nutritious food all the time. That is no fun.

ANNIE
Well, and even to just think of food, all foods, not just carbohydrates or sugar in a more neutral way. And fact-based versus feelings-based.

JEN
Yes, for sure. So there are just some facts about food that we all have to accept. Also accepting that we are imperfect humans, right? That's not, the point of eating is not to just be super nutritious all the time, there's a lot of benefits to eating some of the less nutritious food.

ANNIE

Yeah.

JEN

So, it's a fact that in general, complex carbs are more nutritious. And in general, simple carbs are less nutritious. But we have to look at the whole package. Okay? So better advice is to look at the source and what it's packaged with. So, refined grain products are actually complex carbs. But in the refining process, it removes a lot of the parts of the grain that are very nutritious. So white bread or white bagels, that kind of thing that is made from refined flour. And so it is taking out some of the vitamins and minerals and fiber that you might find in whole grains. And fruit contains fructose, but it also comes packaged with a lot of parts, right? So fruit has vitamins, minerals, fiber, etc. Yeah, and it's just kind of understanding that when we look at that spectrum of more nutritious to less nutritious, it's looking at when nutrition is being removed, right? And also understanding that it is very easy to overconsume simple and refined carbohydrates because of how quickly we digest them.

ANNIE

Absolutely. And also acknowledging that some of this might be context-dependent, right?

JEN

Right. And there's all kinds of different scenarios where what is healthiest for you depends on the situation you're in. So there's people that have different health conditions going on, that they're trying to manage with their nutrition. And I personally know somebody who can't have whole grains. Refined carbohydrates are where it's at, that is what is digested for that particular person. Whole grains just do not digest or cause a lot of digestive issues. So we have to look at the individual right? And what is best is what's best for the individual.

ANNIE

Absolutely.

JEN

Yeah. So why are we talking about this today? We are talking about it because our culture loves to demonize foods, sometimes whole food groups, as Annie said, right? So sugar definitely falls into that category of food that's been demonized by people. And actually carbs in general. Right? And we've, I think, years ago, there was a whole movement to quit to sugar. Claiming that sugar is addictive, claiming, you know, it causes diabetes, it causes obesity, it causes hyperactivity, et cetera, et cetera, et cetera. And believing these myths influences your behavior. And we are a behavior change company, and those who come to us they are, they have health goals, they might have weight loss goals, but they are trying to find balance. And that's difficult to do. It is very difficult to find balance when you have all of these beliefs swirling in your head about food or different types of foods, and a lot of fears over what eating these foods is going to cause for you.

ANNIE

Yeah, I was gonna say most often, when I see some of these claims that you just mentioned about sugar, it's oftentimes like scare tactics, fear-mongering, a marketing ploy, clickbait. And it's also usually accompanied by some sort of program that address whatever that concern is. So, it's largely like sales and marketing,

JEN

For sure. And we are here to say, it's just sugar. [Laughs]

ANNIE

It's just sugar.

JEN

And, as mentioned, both simple and complex carbohydrates do break down or are converted into glucose. And so both simple and complex carbs can be part of an overall healthy diet. And after we dive into all of the myths around sugar, we will elaborate on how you can do that.

ANNIE

Let's just say one more time, both simple and complex carbohydrates can be part of an overall healthy diet.

JEN

Yes!

ANNIE

You can have both.

JEN

You can. I do. You do. Our members do. Yeah.

ANNIE

I don't want to live any other way.

JEN

Right. And so bottom line, what we're saying, there's nothing here inherently wrong with glucose, right? Or sugars. Unless, you know, again, the medical conditions, talk to your doctor.

ANNIE

Per the individual.

JEN

Yeah, per the individual. But while there's nothing inherently wrong with sugar, there are issues. And they are - what I think is, there's a gap in understanding of what more nutritious versus less nutritious sources are. There is restricting sugar and bingeing sugar that's quite problematic in

our culture. And then just the amount of sugar individuals are consuming and why that might be happening. And so there's a saying that, it is the poison is in the dose, is that the saying?
[Laughs]

ANNIE
Yes.

JEN
Am I saying it right?

ANNIE
Something. Yes. I think that's -

JEN
The toxin is in the dose?

ANNIE
The danger is in the dose? Yeah.

JEN
We are on fire today.

ANNIE
We knew what you meant.

BOTH
[Laugh]

JEN
So, understanding that, you know, we encourage, like, plenty of fibrous fruits and vegetables around Balance365. But you can overconsume fiber and have digestive issues from that. Right? So, it's understanding, we aren't putting out this podcast and saying any amount of sugar that people consume can be healthy. We're not saying that at all. We're saying, we're going to talk about amounts a bit later on. And the other issue is when our intake of less nutritious sugars starts replacing other nutritious choices, right? So this is, I mean, weight aside, we will talk about weight and energy balance a bit later on. But even if it's not about your weight, and your weight is remaining steady, but you have a diet that is higher in refined or simple sugars, it's just what it's crowding out of other carbohydrates that have the nutrition packaged with them.

ANNIE
Or either crowding out other macronutrients.

JEN
Yeah.

ANNIE

Like you're eating, you're overconsuming sugar and under consuming protein, regardless of what's happening with your weight. That's not something we would want to encourage you to do.

JEN

Right. Yes.

ANNIE

Okay, so let's get into the myths, the nutritional science we've got. We're good. Is sugar addictive? That's like the million-dollar question right now.

JEN

Right. So there is currently no quality science to support this. So consuming sweet foods does light up reward centers in the brain, but so do many things, like hugging. Like next time I see you, Annie.

ANNIE

Like Jen giving me a compliment on my hair, or my makeup. [Laughs]

JEN

And there's a lot of cherry-picking of studies to support biases. So you can go on PubMed and type in sugar addiction and a ton of things will come up. And what's more helpful is to look at the body of evidence. So of all the studies that have been done over the years, what do they collectively tell us? And people do look at that, right? So there are reviews of studies and what you will find is that professional regulating bodies are normally putting out the most up-to-date evidence-based information that we have. So a 2016 review of the sugar addiction literature concluded that there is little evidence to support sugar addiction in humans. And findings from the animal literature suggest that addiction-like behaviors such as bingeing occur only in the context of intermittent access to sugar. And so these behaviors likely arise from that intermittent access. So just like a dieter, rats are like little dieters, when you don't have access to sugar, and then you come into contact with a lot of sugar, you might binge on it.

ANNIE

Absolutely. We've seen that before, haven't we? [Laughs]

JEN

We have, and I don't want to dismiss or minimize the individuals who feel like they're addicted to sugar because I actually used to believe that I was addicted to sugar. In fact, as I was writing this podcast outline, I was thinking back to 2013, when I first got on the internet, I started a blog called Mama Lion Strong. And one of my first blog posts was about my sugar addiction.

ANNIE

[Laughs]

JEN

Do you believe that? [Laughs]

ANNIE

My, how we have grown.

JEN

So I understand that feeling. And what I would say is that we need a little more nuance in this area. And we need to talk about all the factors that can lead to someone feeling like they're addicted to sugar. But perhaps, we could consider that it is less of an addiction and more of a preoccupation with sweet food or a compulsion to eat sweet foods for various different reasons. And something I've said for the last few years is that if you were really addicted to sugar, you would be eating it by the spoonful out of a bag.

ANNIE

Mm-hmm. Yeah, but we do often hear even our members say, "Once I start, I can't stop, I have to have it. I feel like I need this." And again, that's not to say that their feelings are not valid. That could be very true.

JEN

I was rage-y the first time someone told me that sugar isn't addictive. I felt like offended. I had a lot of time and energy and money tied up in that belief.

ANNIE

Yeah. Which I think, we've talked about on other podcasts about how that gently nudged you into more accountability.

JEN

Oh, for sure. But the great news about sugar not being addictive is that if you are the problem, you can also be the solution. So keep listening. And also, if you want to dive deeper into that, we will link to our podcast on sugar addiction in the show notes.

ANNIE

Yep. Okay, myth number two, does sugar cause cancer?

JEN

Yeah, so this is a probably a very harmful belief. And there's a lot of, I guess, nutrition gurus out there, saying this, whether you know, they're gurus or they're wellness influencers, or whatever they are, and it can be quite harmful, right? So there's people that are declining cancer treatments, and trying to cure their cancer with nutrition, etc, etc, etc. So, this one causes me a lot of feelings, to be honest, as somebody who's seen different members of my family undergo cancer treatments. So according to the Canadian Cancer Society, sugar does not cause cancer,

and they are very, very clear about that. But they do, however, acknowledge that high levels of sugar consumption can make maintaining a healthy body weight difficult. And that obesity increases your cancer risk, or it increases your risk of developing certain cancers. Not all. And just that obesity may cause changes in hormone levels, which may also put you at, what puts you at this risk for developing some of these cancers. But they also say that a healthy body weight will be different for everyone. So talk to your doctor about yours. And we say that too. And we also talk about it in our program, and we have a podcast on it. So we can link to that one too. But the bottom line is, it's not sugar. Yeah. And also consider that studies show that populations with high fruit and vegetable intake actually have the lowest rates of cancer. And remember that sugar is sucrose. And sucrose is made up of one molecule of glucose and one of fructose and fruits and vegetables also contain sucrose, glucose and fructose, right? So it just doesn't work.

ANNIE

Yeah.

JEN

You just can't blame sugar for the cause here.

ANNIE

Because they're all connected.

JEN

All connected. Yes. Does sugar feed cancer? So this is another myth, the myth within the myth of how just different, again gurus, wellness influencers, whoever they are saying that sugar feeds cancer and there's a lot of kind of pushed, you know, if you're in cancer treatments, cut sugar out of your diet, etc, etc. And that's a very misleading statement. So, as discussed, but it can't be said enough, sugar or glucose provides energy to all cells of the body, including cancer cells. So whether you're eating a candy bar or an apple or quinoa, the carbohydrates are going to be converted into glucose in your body and transport into cells for energy. And really, if it was that simple, we could just cut out sugar, and cancer growth would stop. But that is not the case. That's not what's happening.

ANNIE

And you know, as someone whose mother passed away from cancer, I just think of the struggle she was facing throughout her cancer diagnosis and treatment. And then to be told, picturing her or anyone being told that you need to cut out sugar, or you should have cut out sugar, just increases, like the struggle and like one more thing that they have to consider or maybe feel shame about. And it's just like, not cool people

JEN

Not cool. Also, I knew someone who went through cancer treatments and couldn't keep anything down. And they were just essentially just drinking slurpees. And so that's actually where it can be very harmful, right? To tell people to cut out sugar or cut out carbs is that as

discussed, carbohydrates are extremely nutritious, right? And provide us with a very valuable source of energy. And so somebody in cancer treatments is probably going to already be struggling with, you know, certain people, I don't want to make too many big generalizations, especially on a topic like cancer, but it would be like already struggling with weight loss and staying healthy, and all of that, right? So. And then the other piece of info I found while I was researching this is that there are actually cancer cells that respond more to ketones than they do glucose. And so telling everybody to go keto if they have cancer is just not helpful. And the bottom line here, I would say, is to log off the internet, say goodbye to the gurus, and see a dietitian for medical nutritional therapy, if you want to explore how nutrition could potentially support you during cancer treatments. And for God's sake, do not send people you know, in cancer treatments, articles about how quitting sugar can cure their cancer, just please do not be that person.

ANNIE

I mean, like don't ever be that person. But especially like that time, don't.

JEN

Yes, Annie looks murderous over here.

ANNIE

Cuz like, think about my mom, you know? I like, get super protective. And I'm like, do not feed my mom myths.

JEN

Yes. [Laughs]

ANNIE

Yeah.

JEN

And we actually had a member share a few years ago that her mom was in cancer treatments, and a friend of hers was trying to tell her that the supplement sold by Beach Body could cure her cancer. I don't remember what that supplement is called. It's like a protein powder or something.

ANNIE

BS. It's called BS.

JEN

Yeah, it's called BS -

ANNIE

[Laughs]

JEN

- is what it's called. [Laughs] Third myth?

ANNIE

Does sugar cause diabetes?

JEN

You know what, I'm going to be totally honest here that I had some beliefs here. I discussed this with my husband who works in healthcare. And we were talking last night about, you know, everything I had been learning. And he said, I didn't know some of that. And so I thought this is, I think this is a very important one. So for those who don't know, diabetes is a disease in which your body either can't produce insulin, or it can't properly use the insulin it produces. And as discussed earlier, insulin is what moves sugar from our bloodstream into our cells. So that's going to cause problems right? Now, the question does sugar consumption cause diabetes? When you go to the Diabetes Canada website and click on Causes Of Diabetes, the first line you will read is, "Despite popular belief, diabetes is not caused by eating too much sugar, and people don't give themselves diabetes." They sound pissed off.

BOTH

[Laugh]

JEN

And I don't blame them.

ANNIE

It's very clear. It's like they've said that a time or two.

JEN

Yes. So type one and type two diabetes have different causes. But there's two factors that are important in both and that is, one: you inherit the genes, and two: something in your environment triggers it. So the American Diabetes Association references identical twin studies as proof of this. Not all identical twins develop diabetes together, right? And they have the same genes. You can have one twin develop type one diabetes, and the other one doesn't. And same with type two. So what causes type one diabetes or type two diabetes, if not sugar? So I found this fascinating. Type one diabetes is called an autoimmune disease because what happens is the body's immune system attacks and destroys the cells that make insulin. So in this case, your body is left without insulin at all. So individuals with type one diabetes will be dependent on taking insulin to manage their diabetes. And what is the environmental trigger for type one diabetes, right? So if we've got twins, and one of them gets it and one doesn't, like what's going on here? So we don't know exactly. So here's what I picked up in my research, was that one trigger might be related to cold weather. Type one diabetes develops more often in winter than summer and is more common in cold climates.

ANNIE

Fascinating.

JEN

Fascinating, right? Another trigger might be viruses. So it's possible that a virus that has only mild effects on some people could trigger diabetes in another person.

ANNIE

Hmm.

JEN

And also, they say that early diet could play a role. So for example, type one diabetes is less common in people who were breastfed. And those who first ate solid foods at a later age. I don't want anyone to go over the edge with this information. Because it's, you know, I would say health is always multifaceted. And I did not breastfeed my first son. And I gave him solids very young. Yeah. So what causes type two diabetes. Type two diabetes is the result of not enough insulin being made in the pancreas, and insulin resistance when the body isn't able to use the insulin that it makes. So type two diabetes has actually a stronger link to family history than type one, which is really the big thing that surprised both me and my husband. And studies of twins have also shown that genetics play a larger role in type two than type one.

ANNIE

Interesting.

JEN

Yeah, me and my husband were both like, when I was talking about this to my husband, the first thing he said, when I said type one, he said, "Oh, it's genetic. And type two is lifestyle." Like that was his belief.

ANNIE

Yeah, that my mom had type two diabetes. And here I was, up until this very moment thinking that I could mitigate my risk by lifestyle choices. But what you just shared is that there is a strong genetic component.

JEN

There is, but you can mitigate your risk through lifestyle decisions. So environmental trigger for type two diabetes, it would be lifestyle. And also understanding that type two diabetes in families makes a lot of sense with, of course, the genetics and the environment, because families often have similar habits, right? But you can prevent type two diabetes or delay it, you can't prevent it, you can delay it potentially, with lifestyle changes, even small ones. So, you know, I'm not saying you know, again, we're not saying, it's just food or it's just your diet. Although nutrition does play a part, I would say sleep and stress management, and exercise for sure. Balanced nutrition, maintaining a healthy body weight can all help you delay or prevent developing type two diabetes.

ANNIE

Mm-hmm.

JEN

But no, so, bottom line here is that no, sugar is not the cause. Yeah.

ANNIE

Fascinating.

JEN

You good? [Laughs]

ANNIE

Yeah, yeah, I'm still stuck on the type two diabetes. [Laughs] I'm processing.

JEN

And I hear you, Annie, because type two diabetes is in my family. So my grandfather had type two diabetes, and my mom has type two diabetes. So a lot of this was, you know, I know, obviously, I run Balance365. I know what a healthy balanced lifestyle can look like. But it was just such a great reminder for me to intrinsically absorb, you know, really the importance for me as somebody who has the genetic disposition to develop type two.

ANNIE

Yeah, and I'm also thinking about what seems, this is just anecdotally, what seems to be the amount of shame that is accompanied with type two, that I think we're afraid to tell people when they are diagnosed with type two, because yeah, there is just so much shame heaped on people who develop it. And it was, it's a reflection of their personal responsibility and poor choices, you know, like that, it's just there does seem to be a lot of shame connected to diabetes.

JEN

Yeah. And then just quick shout out to gestational diabetes. The American Diabetes Association says, and I quote, "We don't know what causes gestational diabetes." And they have that -

ANNIE

That's reassuring [laughs].

JEN

- in big letters on their website. So what they do say though, what they do know is that hormones produced by the placenta can prevent the body from using insulin effectively. So glucose builds up in the blood instead of being absorbed by the cells. And it's happening in some women, and it's happening in, they had roughly two to 10% of pregnant people is what I read.

ANNIE

And that can impact your experience with diabetes after pregnancy, right?

JEN

Right. I think the stat is, if you have had gestational diabetes, you are 50% more likely to develop type two after but someone confirm that. [Laughs]

ANNIE

Don't quote us on that.

JEN

Right. Let's just say more likely, let's just stay safe and say more likely.

ANNIE

But the point is, it's not sugar.

JEN

It's not sugar, right. Next myth, should we move on? Keep it rolling?

ANNIE

Yeah. Does sugar cause obesity?

JEN

This is...I love this myth. I love it so much. Because again, I think like with diabetes, there is, this is an enormous misconception. And before we get into it, though, I want to say that obesity is a really loaded term for many reasons, right? Like it is a triggering term for a lot of people.

ANNIE

With its own set of myths.

JEN

For sure. Right. And we have a whole podcast that unpacks and explores obesity, and that's Episode 86. But I want to say that when we say obesity, we are not talking about where you land on the BMI scale. We are talking about obesity, the disease, which is diagnosed when an individual has a cluster of symptoms that include a high body fat percentage, but it is not solely based on size. Yeah, so you can land at obese on the BMI scale, and be perfectly healthy.

ANNIE

Because you may not have those cluster of symptoms.

JEN

You don't have the cluster of symptoms. Yeah. And we get our information about obesity from the leaders in the industry. And one of those is Dr. Arya Sharma, who is a very prominent obesity medicine doctor, researcher, doctor, lecturer at the University of Alberta in Edmonton,

we really look to him, and he's probably just, quite a leader in this industry. So he would say that a large body size does not classify someone as having obesity, right? If you fall on the obese part of the BMI scale and have no other symptoms, you do not have the disease of obesity. Yeah, there's just a lot of confusion in that area. I think. So hopefully that clears some of that up. The real question that people are trying to answer is, is sugar responsible for higher body fat percentages? Right? That's kind of the big question. And as mentioned earlier, what a healthy body weight is for you is completely individual and between you and your doctor. But on a population level, what we do know is over the last several decades, body fat percentages are increasing and fitness levels are decreasing in both men and women. So for several decades, that correlated with an increase in sugar intake, mostly refined carbs, which is likely why so many people were sounding the alarm about sugar, right? Or carbs in general. But as we know, correlation doesn't equal causation. Not always, right? And this might surprise some people to learn but since 1999, Americans' sugar intake has been decreasing. And I think it was as of 2013, Americans' sugar intake was back down to the levels they were in 1983. So they peaked in 1999, and they're back down now, or as of 2013, they were back down to 1983.

ANNIE

So if the myths were true, and sugar is down, obesity rates should also be decreasing. But what's happening?

JEN

They are not. So they are continuing to go up. Which is, yeah, a whole other conversation. But I guess what we want to say here is that we have just busted this myth. [Laughs]

ANNIE

Busted!

JEN

Busted!

ANNIE

Busted big time. [Laughs]

JEN

Yeah. So sugar is not causing obesity. And I think if there is anyone listening who is struggling with maintaining a healthy body weight, we need to drill down to the individual level. Right? So, refined sugar, added sugars. That could be part, right?

ANNIE

Yeah. Because we know that in short, and you'll find out when you listen to Episode 86, obesity is multifactorial.

JEN

For sure.

ANNIE

And to say that it just comes down to eating less sugar, that might be applicable to some on an individual basis. Are we prepared on this podcast to make blanket statements to a population?

JEN

No.

ANNIE

No. [Laughs]

JEN

What we do know, though, is that people are eating more in general than they were several decades ago.

ANNIE

Just calories in general.

JEN

More calories. Yeah. They're eating more and they're moving less.

ANNIE

Yep.

JEN

Right? So, and that's for many different reasons, which we will talk about, by the time we are done, this sugar series will have covered some of those issues. So similar to diabetes, obesity is actually genetic as well as environmental.

ANNIE

So go listen to that episode. Okay, we got two more myths. Does sugar cause hyperactivity in children? I fell for this.

JEN

You did, I think we all did. So this is probably one of the most controversial myths that we bust today, we have busted this myth on social media before on the Gram. And there was like quite a reaction that day from our commenters. The truth is, sugar doesn't cause hyperactivity in children. And this myth is based on one single study done in the 1970s. And since then, there have been many, many more studies done that showed no link between sugar and hyperactivity. But those studies did show something that is that parents' perception of their children's behavior changes when they think they're being given sugar. So there's been studies done where researchers tell the parents they are giving the children sugar and they are not. And the parents rate their children as more hyperactive.

ANNIE

Mm-hmm.

JEN

Psychology is powerful. Seriously.

ANNIE

Sure is. Because you're looking for it. It's like, oh, there it is.

JEN

Exactly. It is, what we believe we will search for evidence for.

ANNIE

Confirmation bias. Yes.

JEN

So just consider that sugar-abundant environments may just be more exciting for your child, right? Like they could be at a birthday party, it could be a holiday. Or another thing to consider is that if your children don't get sugar very often, or sweets or treats those types of things, when you are giving them those things that they get really excited, or they associate getting sweets and treats with a special occasion. So they just get more excited, have more of a burst of energy, and you are reading it as hyperactive.

ANNIE

So it might be their thoughts and feelings around that experience that's increasing activity. If it is, in fact, increasing activity. Versus the sugar.

JEN

Yeah. So, that's packing that myth up.

ANNIE

Okay.

JEN

Good-bye.

ANNIE

I know. [Laughs] Get out of here. We shall never talk about it again. No, I'm kidding. I know this last one is near and dear to your heart.

JEN

Yes.

ANNIE

Does sugar cause cavities?

JEN

So I was talking about these myths with my husband last night and I am married to a very handsome dentist.

ANNIE

[Laughs]

JEN

He's not a regular dentist.

ANNIE

He's a handsome -

JEN

Yes, he's not a regular dentist. He's a cool dentist.

BOTH

[Laugh]

JEN

And he was saying, this is so great. Another one is that sugar causes cavities. Isn't that interesting?

ANNIE

Yeah. Which I mean, yes, I also have heard that as well. So does it?

JEN

So my husband was a general dentist for many years, then he went back to school to become a pediatric dentist. So now he primarily works with children and observes children and habits of families type thing. And so him and I talked about last night, so how a cavity is formed is, sugar doesn't touch your teeth, and then you got a cavity. It is that the bacteria in your mouth like carbs. So not just sugar, right? Not just juice, not just - but carbs. And the bacteria eat the sugars in your mouth, and a byproduct is produced, which is basically, I said to my husband, so basically, they just poop on your teeth. [Laughs] But that's my immature little brain.

ANNIE

Very scientific -

JEN

Yes.

ANNIE

- explanation.

JEN

They poop in your mouth. [Laughs] The byproduct is an acid that erodes the enamel on your teeth. And that's what causes cavities. And so we were talking last night, also, you know, going over all of this, we were talking about how our children's sugar intake is probably a bit higher than it should be. But our children have never had cavities. So my husband would say, look at them as proof. And that's because, like with a lot of chronic disease, and a lot of people don't know this, but like cavities or tooth decay is considered a chronic disease, an infectious disease, I should say. It is multifactorial, right? And so genetics is part of it. And environment is also part of it. So, it, there's just a lot of nuance there. And I don't want to get too into this. If like there is a huge demand for a dental health podcast, we'll just get my husband on to talk about it. He also hates when I talk publicly about dental stuff. He's usually cringing, like, "That was not quite right." [Laughs]

ANNIE

"She just said that the bacteria poops on your teeth." [Laughs]

JEN

I don't think I'm wrong. [Laughs]

ANNIE

I can't imagine why he'd be embarrassed. [Laughs]

JEN

Yes. So, what you're eating, of course, when you're eating, and how you're eating and drinking.

ANNIE

And dental care, like your habits, right? And genetics.

JEN

And genetics and your access to fluoride, if you live in a fluoridated community or not. So, you know, one thing we talked about when our kids were babies was, you know, everybody's told that or, you know, most people are told at some point to wipe their baby's gums, like wipe the milk off their gums, or when they start getting teeth to wipe the teeth with a soft cloth. And that's because even breast milk can cause cavities if the breast milk sits on the teeth. Right? And so that's why you know, a dentist will say to eat a meal and then finish, like don't graze on carbs all day, because it's that steady stream or access to carbohydrates that is causing the cavities. But what I'm saying here is, it's not sugar. Could your sugar consumption, how you eat sugar, when you eat sugar, how frequently you're eating sugar, are you drinking, you know, pop or juice all day long? Could that contribute? Absolutely. But also could chips, right? Or fructose from fruit?

ANNIE

Yes.

JEN

That type of thing.

ANNIE

Yeah. So it's not sugar.

JEN

It is not sugar causing -

ANNIE

In a silo. Yeah.

JEN

Yeah. And if you look, like you know, you think about the World Health Organization, evidence-based organizations putting out really good health stats for us all. And just to understand that those stats are often these population-level studies, which is important, it's important to look at what's happening with a population, whether it's cavities or obesity, like the rise in body fat percentages. But we have to think about population studies differently than what we see on an individual level. Because what is, the trends being seen in populations may not be your individual experience.

ANNIE

Yeah.

JEN

So...

ANNIE

Which our culture, our media loves to do, is to take these like blanket takeaways and make generalized recommendations for everyone.

JEN

For sure. So we cannot forget to look at ourselves, or if there's any health care providers or personal trainers listening, we have to, I guess, look at the individual and consider all of the factors in that individuals' life before making health recommendations.

ANNIE

Okay, well, we gave everyone a lot to chew on.

JEN

We did.

ANNIE

Pun intended. We are going to wrap this part of the podcast up and continue with part two next week. We are going to be covering how much sugar is too much sugar, how restrictive dieting can drive your sugar consumption, what does mindful sugar consumption look like without obsessing over labels and tips to reduce your sugar consumption that feels reasonable, healthy, and individual to you. So make sure you join us for part two.

JEN

Yes. Thanks, everybody.

ANNIE

Thanks, Jen.

ANNIE (OUTRO)

Hey, everyone, if your mind has been blown while listening to this podcast, just wait until you work with us. Let us help you level up your health and wellness habits and your life inside Balance365 coaching. Head on over to balance365.co to join coaching.