What You Eat Affects How Much You Eat | Smart Eating for Weight Management Transcript

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Episode Introduction and What Affects Fullness

Do you struggle to reach your goal weight or find it really hard to cut back on the number of calories that you eat? It turns out that how much you eat is influenced by what you eat.

What are the foods that might help you feel fuller? How might you plan your meals? Let's see what the evidence tells us. Welcome my listeners to episode 49! What you eat affects how much you eat.

Now, in prior episodes, we talked about being at a good weight and why being overweight affects our heart, our risk of diabetes, risk of cancer. We discussed a couple of tips, how eating more slowly might allow the brain to catch up and the use of smaller plates might help us from a portion control standpoint.

But is there another secret that might help us? And the great answer is yes. The specific foods we eat can affect how much we eat. Well, why now? My dear wife Gail is on a new eating plan where she's cutting out flour and sugar and eating lots of vegetables and she finds it's really helpful and she feels more full.

I've also found, and I've chatted with you before, that If I eat something with protein, a bit of meat before a meal, say 15, 20 minutes before a meal, it reduces my appetite.

So not surprisingly, I asked, is there any evidence for any of this? Or is it all just a placebo effect? And are there other foods to consider? So down the rabbit hole I went, and what did I find?

Well, the good news is there's evidence in this space. But not so good news is most are from really small clinical trials. So I can't say we have the definitive answer.

but it might be enough to give it a try, especially if you try it using our N of one approach. Now, I do believe that what we eat affects how much we eat.

And there are five aspects that I'll walk through with you that seem very important. First, calorie density. How many calories do you get per bite? Think of celery versus cheesecake.

That matters in terms of how full you feel. Second, the texture of the food impacts things. Think banana versus carrot. Think apple versus apple juice.

Ultra-Processed Foods and Satiety Evidence

Third, what the actual food is. Is it protein? Is it fat? Is it carbs? Fourth, We may have heard that if you drink water before your meal, you might feel fuller and want to eat less.

And there's a fifth one, which is quite interesting, is our appetite, our feeling of fullness is affected by what we think we're eating, not necessarily what we're actually eating.

And that teaser, I'll share more with you. Well, before diving in, after my last episode, a listener reached out to me and asked, well, I listened to your episode on does health need to be a full-time job?

And they said, you know, it would be a great workshop if you walked through with folks how you decide what aspects of wellness to focus on what might not be absolutely necessary.

So, I listened. I listened to my listeners all the time and I said, why not? So, join me for my first ever live web event.

It's free, of course, and it's on Thursday, October 2nd at 6 p.m.

Central Time. I'll include a link for you to sign up. If you already get my newsletter, I'll send you some information that way. And if you're not on my newsletter, please, please join my newsletter.

Just go to my website, DrBobbyLiveLongAndWell and you can sign up. And tell others about the workshop and about the podcast. Well, back to what we eat affects how much we eat.

Now this topic has come up many times if you're watching the TV or reading news media or social media and it comes up when discussions around ultra processed foods which people say are designed to make you eat too much or just to eat a lot and buy more.

I will do an episode on ultra processed foods. I might call it the good, the bad, and the ugly, because there are a lot of points of view to consider.

But today, I just want to mention as a window into the topic of what you eat and how much you eat. So here's an interesting study. It's small, but it was randomized.

And they basically took people and said, okay, you're going to eat ultra-processed food for a week, or you're going to eat non-ultra-processed food for a week.

And then they would switch it up. So maybe you would first start with ultra-processed, then go to not ultra-processed or the reverse. Now, each meal, whether it was the ultra-processed week or not, had the same calories, had the same macronutrients, meaning protein and fat and carbs.

And what they found was that people eating the ultra-processed foods ate 813 calories more per day. Meaning, it appears from the evidence that what you ate influenced how much you ate.

So ultra processed foods, you ate a whole bunch more. Now we know or we've heard that ultra processed foods have been engineered to get you to eat more, buy more, want more.

Well, what aspects of the ultra processed foods might drive that? And it turns out it's many of the things that we're going to walk through in just a moment.

All right, let's take a 60,000 foot view. This is something I suspect all of you have a sense of. Some foods make you feel full and others don't. And we call that satiety.

And a group of researchers developed an index of satiety or how full you feel for each food.

Satiety Index: Which Foods Feel Most Filling

What do they do? Well, they fed people various foods, and then they asked them every 15 minutes after they ate the food for up to two hours, How full do you feel?

And then after that, they let them eat anything they want and investigated whether how much they wanted to eat after eating that initial food correlated with their sense of satiety or fullness.

And so they had a whole long list of foods they tested. Now to make a scale, they had to put something in kind of the middle and they put white bread and they gave it a score of 100. Meaning, if it's higher than 100, then you feel fuller than if you ate a certain amount of white bread.

If it was less than 100, then whatever that was, you didn't feel as full as had you had white bread. So what was less satiating, less fullness producing than white bread?

Well, remember white bread is 100, donuts were 68 and croissants were 47. So those in this study were less

satiating, less fullness producing than even white bread.

Okay, so let's go to the other side of the equation. What made people feel more full? boiled potatoes topped the list at 323. Oatmeal was 209, apples, whole apple was 197 and beef was 176. So it was very clear in this study that certain foods made you feel fuller and certain foods made you feel less full.

So, of course, the question is, why? What is it about the foods that might want you to eat more or eat less? What are the drivers? And so I'm going to walk through each one of those now.

First, let's start with energy density. So calories per bite or handful of something you're going to grab, whether it's blueberries or maybe it's chips or maybe it's something else like candy.

Again, think celery versus cheesecake. Clearly one has more density of calories than another. So they did a randomized control trial here of 69 people.

Now this study and many other studies in this kind of appetite space were typically done in people of normal weight. So this group had a BMI of 23. It's interesting.

It wasn't in obese people. Most all these studies were in people of normal weight. And these studies were what are called crossover studies. They're kind of like N of one trials.

So you compare for an individual, one diet versus another, one approach versus another. That's called a crossover trial. So what they did is they gave them a certain type of lunch meal.

And we're talking about energy density. So some were high density lunches, some were low density lunches. And after they had the basic part of the meal, they said to people, well, if you want to eat some more, if you're still hungry, here's some sandwich pieces.

So just eat as many as you feel like. So they had a low-fat meal. They had a high-fat meal. And the low fat meal, the way they created it was they use low fat mayo versus high fat regular mayo.

Energy Density and Texture Effects

They use lower fat chicken versus regular chicken, you know, like a chicken breast versus a chicken thigh. So in comparing the dense meals versus not, when it came time to how full people felt and how many calories they ultimately wanted, because they could eat those sandwich bites at the end, the people that have the high energy density meal, they ended up eating 484 calories more before they felt like they were done.

So that's quite extraordinary. So think in the future about how dense the calories are because that may affect how much you want to eat. Okay, secondary, texture.

Does texture influence how much you want to eat? Again, Small studies, as I said, all of these were typically small studies, but they were randomized trials.

There were 50 folks, they were age 24, and they compared a soft meal versus a hard texture meal. Now, what do we mean by that? So a soft meal might be mashed potatoes and steamed vegetables and steamed salmon and banana, yogurt drink and avocado sauce.

So you can get a sense not a lot of chewing to ingest that food. And in the hard meal, they might have multigrain rice, which is coarser. They might have a salad that's full of celery and carrots and cucumber, and maybe chicken breast and an apple for the end of the meal.

So what did they find? The soft meal people ate 20% more weight-wise, calorie-wise than the people who had the higher texture meal. Okay, so texture seems to have another piece of this puzzle.

A part of the texture story, and you may have heard about this, is fruit versus fruit juice. Does one satisfy your hunger more? Does it affect how many calories you're going to eat?

So, great study. Love this one. Again, small, 58 adults, normal BMI. And they basically tested this out over the course of five weeks. And the way they did it is they gave you a pre-meal.

So before you had your full meal, you had either apple, apple sauce, apple juice where they added fiber or apple juice without fiber. So you can get a sense of, okay, so we've got the full apple at one extreme.

We have just the strained juice at the end and at the other extreme. And they asked people kind of which one made you feel fuller? You're probably not going to be surprised to hear that the least hunger that people felt after about 15 minutes was with the apple.

And they then also found, because after you got your pre meal of your apple or apple juice or whatever, you then got to eat your regular meal and they measured how much you ate.

So after that pre-meal, they found that people who drank apple juice, their meal was 860 calories. The applesauce group, their meal, what they wanted to eat was 800 calories and the people who had the pre-meal of an apple, the full apple ate 700 calories.

So basically, having an apple versus apple juice as your pre-meal, there was a difference of 187 calories that is a lot interestingly they played around with whether the juice had fiber in it or not didn't seem to matter although other studies have shown that fiber helps us feel fuller now clearly when you think about it from a texture standpoint to eat an apple versus apple sauce or apple juice has a lot more chewing going on it takes longer to eat those calories And in the end, solid fruit was more satiety or fullness creating than the juice.

All right, so that's a second. That's texture. How about the type of food? I said at the beginning that for me, protein seems to allow me not to want to eat quite as much.

Now, this study was a really small one. There were 11 young men who did it. And what they did is they gave them an afternoon snack and they varied the snack, whether it was high fat, high protein, high carb.

And then they measured when they wanted dinner.

Protein, Water, and the Sham Milkshake Study

So in other words, did they stay full for a short period of time and wanted dinner an hour or two later, or did they feel quite full and they really didn't rush to dinner even further off into the future?

So what did they find? If you had your protein as a snack, your snack was protein, you delayed your dinner compared to not having a snack by 60 minutes.

Now you may say, Dr. Bobby, well, maybe any snack would do it. Nope, a high carb snack, you pushed off dinner by 34 minutes, high fat by 25 minutes. So it turns out from this study, and there are some other studies like this, that protein might help us to feel fuller.

In my own personal life, that's true, and at least with this small study, it's true as well. Okay, two more issues. They're not exactly like the characteristic of the food, but I think you'll get the point quickly.

So people have often said, well, you'll feel fuller if you drink water before your meal. So not water during the meal, but water before the meal. Tiny study, 15 subjects, average age about 26. And what they found in this one study is that when they gave you water before the meal, people felt fuller and they ate less.

But that's now one tiny study. So there was a systematic review that looked at a bunch of studies and what they looked at wasn't how much they ate, so that's why it's not in the same category as the previous study, but whether

you achieved weight loss.

So they had four studies where they tested out whether you had like two glasses of water before each meal. And then they followed this approach over the course of three to 12 months.

Again, it was randomized between people who tried the water approach and those that did not. And those that had the water prior to the meal lost significantly more weight, multiple pounds more than the ones that didn't have the water before the meal.

So again, this isn't exactly what you eat equates to how much you eat, but it's related. This last study is just a fun study, but it is on topic and it's called the sham milkshake study.

And you could put this in the mind over matter category or mind over food category. And this basically isn't what you eat determines how much you eat, but what you think you're eating influences how much you eat.

Now this is great. So basically they gave 46 different people milkshakes on two different occasions. And it was about a 380 calorie shake. So it was a nice tasting, nice shake.

So first they said to people, or some people, This is the skinny shake. It only has 140 calories to it. Now in reality, it was actually the 380 calorie shake.

And others, they told this is the indulgent shake. It has 620 calories. And guess who felt fuller? the people who thought they were getting the indulgent shake, even though they were getting the exact same shake as everybody else.

And then they switched it off so people got to try all of these different approaches. Okay, so that obviously is psychological. You think it's an indulgent shake, so you're really full afterwards.

But they also measured hunger hormones like ghrelin. And what they found was the ghrelin levels, which relate to how hungry you feel, reflected, again, not what you ate, because again, everybody drank the same actual milkshake, but what people thought they ate.

So your brain and your stomach and the secretion of ghrelin relates to what you think you're eating. So I think this is fascinating. Not that you're going to be able to cheat yourself mentally as to what you're actually eating, but I think it relates to this.

Okay, we're ready to wrap up. So as a reminder, October 7th at 6 p.m. Central Time, I will do the workshop on helping you to explore and what to do so that health and wellness does not need to be a full-time job.

So I'll give you very practical tips. We'll walk through how to do it, and by the end of it, hopefully you'll be able to take it to the next step. Okay, on today's topic of what you eat affects how much you eat.

The evidence isn't perfect. I've said it at the beginning, I'm going to say it at the end. I do believe there is a relationship and the data certainly supports it.

Wrap-Up and Practical Takeaways

It seems like the critical factors are the density of the food, meaning how many calories per bite, the texture, whether it's soft or hard, whether it's protein versus fat versus carbs, protein seems to help us feel fuller.

And then of course, this issue about water before your meal. And then of course, what you think you're actually eating. Now the evidence isn't perfect.

So when the evidence isn't perfect, what is perfect is to do an N of one trial. Episode number 27, we'll walk you through it. You might test out having a protein snack before eating a normal meal.

You might test out having a glass of water before a meal. Of course you need a way to measure it. You need to try it with this approach, try it without the approach and see what happens.

Again, as always, I hope you live long and well, and when you eat, I hope you find foods that make you feel satisfied and full.