Artificial Sweeteners: Does Diet Soda Do More Harm than Good? - Frankly Speaking EP 25

Transcript Details

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Dr. Frank Domino
So you're seeing a 55-year-old male who's desperately trying to lose weight. He exercises constantly and works very, very hard at analyzing his diet. When I take a dietary recall on him, it turns out that he chose to have a salad and a diet cola at lunch so that he could have a cookie afterwards. Are diet sodas safe? There seems to be some new data we should discuss. Joining me on the program today is Jill Terrien, Director of the Nurse Practitioner Program at the Graduate School of Nursing at the University of Massachusetts Medical School. Welcome to the show, Jill.

Jill Terrien:
Thank you, Frank. So Frank, very interesting case and I think that people like their diet sodas and they think that it's of tremendous benefit for them 'cause it's replacing something higher calorie. Can you tell us a little bit about what you found in this study?

Dr. Domino:
So the Framingham Heart Study, the study that helped us identify, back in the '70s and '80s, what were the cardiac risk factors, that data was used to query about the role of consuming artificial sweeteners and its outcomes, especially its neurological outcomes. The study looked at adults over the age of 45 and looked at what risk factors would increase the risk of stroke and of dementia, two things that we worry about often especially as we're getting better at preventing heart disease and we're addressing cancers more effectively. So what the initial data found and what was reported in the news was that artificial sweeteners correlated with stroke and

dementia. And when the authors drilled down on the data, what was found was that after you adjusted the data for the presence of diabetes and hypertension, the use of artificial sweeteners increased the risk of ischemic stroke. So I think, while it's an observational study, it's a huge study and it's been very well done and very well verified as being accurate, I think we have a pretty good sense that artificial sweeteners have some adverse effects, and I think what we can tell patients most conclusively is that it increases the risk of stroke.

Jill Terrien:
So Frank, that is really interesting and you think about how things have evolved, especially since the '90s, when we talk about fat and we talk about artificial sweeteners. How do you quantify that for people? So you have your patient in your case, which maybe you'll tell me more about him or her, was it a him?

Dr. Domino:
It was a him.

Jill Terrien:
Maybe you'll tell me more about him. What kind of recommendations would you make? Is all artificial sweeteners to be cut out of a diet totally or is there some sort of modification and recommendation?

Dr. Domino:
Well, Jill, I think we now have a growing body of data on artificial sweeteners, and they're not all the same. Some have been highly manufactured and one is considered natural, but what we do know is that artificial sweeteners of any sort have some danger. This study tells us it increases the risk of stroke, but there has been preceding data that shows it increases the risk of diabetes, in particular, Type 2 diabetes and hypertension. I find that very ironic because people tend to use them specifically to prevent the onset of Type 2 diabetes. So I think we can say for folks who are trying to watch their weight and prevent some of the adverse outcomes associated with obesity, use of artificial sweeteners does not help.

Now, why is that? Well, it turns out that artificial sweeteners have a very unusual physiological action on the body. They increase insulin release and most importantly, they increase our cravings for calorie dense, often highly sweetened foods. So drinking an artificially sweetened drink without consuming other foods is more likely to alter how your body uses the calories you've already consumed, and more often than not, store more than burn. And so it actually contributes to obesity. So I think the very first thing is to say to patients, "Look, artificial sweeteners, they have a number of adverse outcomes. And while they're not gonna affect everyone, everyone who drinks a diet drink is not gonna have a stroke, but most importantly is that everyone that uses them has a higher risk of having things that they may be trying to avoid."

Jill Terrien:
So, Frank, is there an alternative to the artificial sweetener? Is it going back to sugar?

Dr. Domino:
Believe it or not, it is. So a teaspoon of sugar has 15 calories, has four grams of carbohydrate. And we think of, "Wow, we can't add sugar so we have to use the artificial sweetener," it just doesn't work that way. Doing so, avoiding the sugar, can be worse. So if you were to take an average cola and pull out all the grams of carbohydrate, the average eight ounce glass, so not even a full can, of a regular drink has seven to eight teaspoons of sugar. Now that's incredibly calorie dense and it's all carbohydrate. So my suggestion is if you want an iced tea, don't buy a sweetened iced tea, buy an unsweetened iced tea, add a teaspoon of sugar. It'll add some sweetener, it probably will quench your thirst, and it's probably not going to harm you.

And I mentioned cola, but that's across the board. A glass of fresh pressed... I mean, here we are in New England, a glass of fresh pressed apple cider contains the same amount of calories as a glass of 100% organic, natural orange juice, has the same amount of calories and the same number of grams of carbohydrate as a can of cola. So using those options, not reasonable. They're just very high calorie dense, they're also gonna contribute to obesity. On the flip side, drink water, drink seltzer. Take an ounce of orange juice and throw it in a glass of seltzer, you're gonna get 15

calories and you're gonna have your thirst quenched and it's gonna be far better for you than anything you're going to try to use as a substitute.

Jill Terrien:
That's excellent, Frank. Excellent advice for patients. You did mention that one of the artificial sweeteners is natural. What does that mean?

Dr. Domino:
Well, it comes from a plant and it's not processed, it's not manufactured in an industrial site. That's all it means. It continues to influence your pancreas and the secretion of insulin in the same way as the other artificial sweeteners may. We don't have as much data on it as it's a relatively new product. So if you wanna use something that's an artificial sweetener, if you want something sweeter than a teaspoon of sugar, it's probably the best option of the artificial sweeteners, but I urge all my patients that if you're gonna use something like that natural artificial sweeter, use it with other foods because if you use it alone you're tricking your body and your body always wins. It's going to store the calories you've already consumed instead of burn them and you're just going to gain weight.

Jill Terrien:
Thank you, Frank. This has been a really great tie in of the stroke related to the all-cause mortality in the Framingham Study, a fascinating piece of data.

Dr. Domino:
Practice pointer, using artificial sweeteners increases the risk of stroke, diabetes, hypertension, and provides no benefit for weight loss. Consider using a teaspoon of sugar and drink more water. Jill, thanks so much for joining me today to discuss this topic.

Jill Terrien:
Thank you, Frank.

Dr. Domino:

Join us next time when we discuss managing the new patient on chronic opioids.