

A Good Night's Sleep: The Possible Association Between the Early Introduction of Food and Infant Sleep - Frankly Speaking EP 90

Transcript Details

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Dr. Frank Domino:

Martin is a 54-year-old male who has struggled with obesity his entire life, his BMI is 48, he has hypertension, hyperlipidemia, type two diabetes and also already had a cardiac stent placed, he has not been able to complete the requirements for a gastric bypass as he cannot change his diet, he has tried every medication available to lose weight without success. He says, doc give up, there's nothing we can do. What can you offer someone who will not change their diet and may die from obesity related complications. Hi, this is Frank Domino, Professor in the Department of Family Medicine and Community Health, and joining me today is Susan Feeney, Assistant Professor and coordinator of the Family Nurse Practitioner Program at the University of Massachusetts Medical School's Graduate School of Nursing. Hi Susan.

Susan Feeney:

Hi Frank.

Dr. Domino:

So Martin's a challenge for me.

Susan Feeney:

Yeah, this is a classic case. I think what everybody who works in primary care can say that they've had someone like this, and you just feel like you're hitting your head against a wall and they feel that way. So what do we know? What's out there in the literature that we can offer people to help them with their dietary habits, if they're not able to, or can't change their dietary habits?

Dr. Domino:

Well, he certainly qualifies for a gastric bypass, but he's not been able to meet the minimum requirements to have that done. And so, you can use medications, you... I've referred him to a dietitian. I've tried a variety of different medicines, and he just is compelled to eat, he's his own worst enemy. And so my heart goes out to him and he knows that this is going to be a problem. He was scared when he had his stent placed, so Martin's got a lot of issues.

Dr. Domino:

Recently a paper came out, a very small randomized controlled trial, where they let people eat whatever they want with two additions. One was they requested that they eat 35 grams of fiber a day, the other is that they would get 0.8 grams of protein per kilogram of ideal body weight. That was the only two dietary requirements was that they had a fairly large amount of fiber, and increased their protein intake. And after 12 weeks, the average person lost around four to five pounds.

Susan Feeney:

That's amazing. So is that important? Would you be, four to five pounds over 12 weeks, is that something that we would think is a positive thing?

Dr. Domino:

Well, for many people, losing four to five pounds over 12 weeks, is probably below what we're looking for with regard for weight loss and health conditions. But Martin's been gaining a pound a month for the last 50 years. He's had obesity his whole life, and the challenge for him is changing his diet. This is one of the few weight loss studies I've ever seen where people were told, "Yup, go ahead, eat whatever you want. You wanna have ice cream, go ahead. You wanna drink soda, go ahead. You wanna eat a Twinkie go ahead." The only thing we want you to do is dramatically increase the amount of protein and fiber that you take in. The premise here is that, first many things control hunger and the signals that we eat, and we know that there are hormones related to our gut secretion that have a strong influence. We've tried medications to alter those hormones and they haven't helped people lose a great deal of weight.

Dr. Domino:

The thinking is that your intestinal microbiome, the bugs that live in your bacteria are out of balance, that there are more of ones that promote weight gain and not enough of those that promote satiety, and weight loss, and one way to influence that is to present those bugs with a much higher fiber in particular, soluble fiber content. Doing so shifts that ratio towards bacteria that are more apt to promote weight loss.

Susan Feeney:

Now, did they talk about timing of this fiber? Could it could be any time during the day? Did it have to be right before they ate?

Dr. Domino:

Well, they recommended that you don't take it all at once. So what's the problem with taking in a large amount of fiber is that it can cause abdominal bloating, and gas, and so

they recommended you space it out during the day. A reasonable approach would be to try to get fiber before meals with a large glass of water, because that will also cause some gastric distension, and that might send a signal back that says, your full, might increase the satiety sensations at an earlier rate, so stretching it out over the course of the day was best. They also strongly recommended that you get that fiber from natural sources. So places like vegetables and fruits, and nuts.

Susan Feeney:

So, this sort of reminds me of a study that I had heard about where people did similar thing, ate whatever they wanted, but they ate their protein first, and they found that there was a similar type of weight loss, and it sort of goes to this concept of increased protein that it makes people feel fuller, and maybe has an impact on the microbiome, as well.

Dr. Domino:

So the USDA has recommendations with regard to how much protein and how much fiber you should get a day. And it turns out that most Americans don't, and that most obese patients do not. So I think this fits this, this at least fills that need. Certainly, this is more protein than most people are used to eating, whether they're obese or not, and it's probably far more vegetable fiber than the average person eats who is not a vegetarian.

Dr. Domino:

But what was interesting, probably the most interesting thing to me with this study, was that patients could eat otherwise how they wanted, and there's just... When you have patients with severe obesity, they normally have some form of an eating disorder and there are very few things that can address that, and this was one of them.

Susan Feeney:

Well the thing that was exciting is what you said is that, "Without making any changes, even though it might have been something small, like 2.5 kilograms, or four pounds over 12 weeks, he wasn't gaining weight.

Dr. Domino:

Correct.

Susan Feeney:

So this is at least maybe having him maintain, as opposed to continually gaining weight. So this is a very exciting study, but it was really small. So how can we apply this?

Dr. Domino:

Well, I actually spoke to the authors of the study because I thought, I'm the evidence based medicine person, a study with 15 people and it just doesn't change my behavior. The first thing they said was, this probably won't be replicated with a large population anytime soon, just because the funding here is very limited. That being said, there was no downside, there was no adverse events. They said, "If you wanna try it, it wasn't hard. They included bi-weekly counseling sessions where they asked patients, "What are you eating and what can we do to get more fiber into your diet?" They didn't talk them about exercise or cutting out carbs or or anything else. They tried to spend the time talking to patients about what they were eating, and how to incorporate more fiber and protein into it, and they said that it's perfectly safe to try.

Dr. Domino:

I think Martin's an ideal patient, his definitive treatment is not gonna be losing four pounds every 12 weeks. His life expectancy will go up if we can get him to lose an adequate

amount of weight, so that he can get the gastric bypass.

Susan Feeney:

Exactly.

Dr. Domino:

So I would say he's a great candidate for this because you've tried everything else. This is totally safe. It doesn't even cost much in the way of money, certainly less than a prescription, and it allows him to still do what he wants to do, with very low risk. I will tell you though, I don't mind recommending these things to most patients who are trying to lose weight as a first approach. I'd rather them still have the sense that they can eat what they want, but add these two things in that aren't going to harm them, and see how they do. Once again, I'd always rather do something that doesn't require a medication or isn't restrictive, then something that requires possible drug/drug interactions, or leads to the patient feeling either hungry all the time, or that they're missing out often.

Susan Feeney:

Right. And I think it's a fairly, you said fairly easy thing to do, and the downside is so minimal, and no expense, so it really is a good option and sometimes the actual act of losing weight, even if it's only four pounds, is such an incentive that it may help to change behavior.

Dr. Domino:

Just as you said, "Martin's someone who's gained weight every week of his life, and here's something where he was able to lose weight, not add." So this may have been a four or five pound weight loss, but it was probably a seven or eight, overall benefit.

Susan Feeney:

Correct.

Dr. Domino:

One last thought, when you think about fiber, how do you get more fiber in your diet?

Well, high fiber foods are something like an apple, an apple with the skin on, it's about four to five grams of fiber. So to meet this... One thing I tell people, if they can't figure anything else out, is eat seven apples a day. They go, "Seven apples a day, that's an awful lot." Well, yeah, there are other things you can do, other fruits with their skin, or pears are also very high, raspberries and strawberries are very high in fiber. Kale, the ever present kale, is a very high-fiber green, but most people don't like it. Peas are almost as high in fiber as Kale and much more palatable.

Susan Feeney:

Wow, I did not know that.

Dr. Domino:

Beans and lentils are very, very high in soluble fiber. And again, the authors here looked at the data, looked at the literature, and it's the soluble fiber, the stuff that turns into gel in your intestine, not the stuff that promotes catharsis, but rather increasing bulk of your stool, are the things that create the weight loss.

Susan Feeney:

Okay, so some of over-the-counter package things, like the fiber that we give people. What were the recommendations on those?

Dr. Domino:

So, they recommend of course, that you ideally get most of your fiber from food sources. There are two or three options. The packet of stuff that you're talking about is normally psyllium, psyllium seed that's ground up into powder, and taking it with a large glass of water, is the ideal fiber that will help promote weight loss. It's the most extensively studied, but it's also the one that's most likely to cause gas.

Susan Feeney:

Right.

Dr. Domino:

So there is a commercial product by a very well-known fiber supplement, population that has a weight loss formulation that does include psyllium in it. The next common source is inulin. Inulin is the root of the chicory plant, it is also all soluble fiber, it does not present to the intestine, it breaks down a little bit before it gets there. On the flip side, it causes much less gas and much less discomfort. So those are two simple ways, and then there are some cereals that are very high fiber, both soluble and insoluble, and we'll have a link on the landing page of high fiber foods, both vegetables, fruits, and commercial products that you can consider.

Susan Feeney:

Great. Well this is very helpful, and I think most of us can come up with several patients who this might be a good option for. Thanks, Frank.

Dr. Domino:

Oh, thank you Susan. Practice pointer, for patients who can't change their diet, adding high fiber, 35 grams a day, and increasing protein 0.8 grams per kilogram of ideal body weight per day, can help lead to weight loss. Join us next time, when we review the current new recommendations on screening for cervical cancer. And for more timely, relevant and practical medical education, check out primed.com.