The Tuesday Minute

Nutritional information.... one byte at a time

This Week's Topic

Artificial Sweeteners Seem So Harmless

A colleague and a good friend, Dr. Paul Varnas, told me a story I will never forget. One of his patients had just spent thousands of dollars on an elaborate biochemical workup to find the cause of her chronic headaches and chronic fatigue. After following a complicated in-depth program for several months, she was still experiencing daily headaches and fatigue. In utter frustration she told him "I've changed everything about my life, and I'm still sick. I only have one pleasure left; I drink one diet coke every day." Dr. Varnas in his wisdom replied, "Not anymore. I want you off all diet products for 30 days." Three weeks later the headache pain was totally gone and her energy started coming back.

I share this story because sometimes we forget the profound effects artificial sweeteners like aspartame can have on our nervous system. Dr. Russell Blaylock, a noted neurosurgeon and author of the book "Excitotoxins: The Taste That Kills," calls them neurotoxins. You'll find a link to one of his videos on the webpage. Over 90 different documented reactions have been reported to the FDA regarding our friend NutraSweet. Things like: headaches, dizziness, seizures, nausea, numbness, muscle spasms, weight gain, rashes, depression, fatigue, irritability, tachycardia, insomnia, vision problems, hearing loss, heart palpitations, breathing difficulties, anxiety attacks, slurred speech, loss of taste, tinnitus, vertigo, memory loss, and joint pain. Artificial sweeteners seem so harmless, but you can tell from the range of symptoms, obviously they are not. The different varieties and formulas are numerous.

A new "vitamin water" recently came out. I was happy to see stevia as the sweetener. It is interesting, even though stevia has been widely used by the Japanese government since the 1970's and has been used in Paraguay for centuries without side effects, stevia is still unapproved in the United States. An additional sweetener had been added to the vitamin water along with the stevia, a name I was unfamiliar with, erythritol. I should have known it was too good to be true. The new sweetener erythritol is a sugar alcohol, but is neither sugar nor alcohol. It is not completely absorbed in your body so symptoms like diarrhea, headache, and stomachache have been reported.

Truvia is another ingredient taken from part of the stevia plant and is being touted as a "natural sweetener." However erythritol is also added to products containing truvia. As you can see, it gets confusing.

Some sugar substitutes are natural and some are synthetic. The synthetic ones are referred to as artificial sweeteners. In the United States, five artificial sugar substitutes have been approved for use. They are saccharin, aspartame (or NutraSweet), sucralose, neotame, and acesulfame potassium. You can go to a link on the webpage and get more information on each of them as

well as some natural beverage options. But before you do, let me highlight a couple of points.

First, even though there are only five approved synthetic sweeteners, many more are added that have not been tested or approved. According to the data I could find, (and you'll see it's already outdated) over 3,900 products containing artificial sweeteners were launched in the United States between 2000 and 2005. In 2004 alone, 1,649 artificially sweetened products were launched. Artificial sweeteners cost the food industry only a fraction of the cost of natural sweeteners which means extremely high profit margins for manufacturers. It is not surprising that the food industry is heavily promoting its "diet" or "light" products.

Let's not forget that these artificial sweeteners won't go bad or when added, won't cause products to go rancid. How can they? There is nothing living in them. And what are the effects of these cumulative neurotoxins when they are consumed in far greater amounts and concentrations than anyone ever thought possible? Nobody knows what happens when they are heated in storage or in cooking, and we don't have a clue what will happen long term when used in combination with other additives.

Here's another interesting point. A 2005 study by the University of Texas Health Science Center at San Antonio indicated that rather than promoting weight loss, the use of diet drinks was a marker for increasing weight gain and obesity. In the study, those that consume diet soda were more likely to gain weight than those that consumed naturally-sweetened soda. Giving the body the "taste" of energy-rich foods triggers a search for the real thing.

Animal studies have indicated that artificial sweeteners cause body weight gain. A sweet taste induces an insulin response which causes blood sugar to be stored in tissues, but because blood sugar does not increase with artificial sugars, there is hypoglycemic like response and a craving for food. After a while, rats given sweeteners have steadily increased caloric intake, increased body weight, and increased body fat. So especially with diet drinks we are getting the exact opposite effect.

For now, stevia is our best option. But remember, because it comes from plants and is subject to growing conditions, all stevia is not alike. So some forms have a slight mineral taste depending upon the brand and whether it is a liquid or powder. Also if you use too much, it may seem bitter. So experiment with different brands and textures. Use the one that suits your taste.

One caveat with stevia: if you struggle with high blood pressure, high cholesterol, diabetes, or extra weight, then you have insulin sensitivity issues. You should avoid stevia. In fact you should avoid all sweeteners. They can decrease your sensitivity to insulin which will force the body to make more. Remember, insulin is a fat storage hormone.

In closing, be sure to download the handout. This topic will certainly hit home with many of your patients. It's not only fascinating, but when taken to heart it will make a difference.

Thanks for reading this week edition. I'll see you next Tuesday.