On the topic of Pain and Stiffness in the “Non Polio” Leg (2/8/2018)
Original Post: I'm starting to experience stiffness in my “good” leg that didn't have the polio when I drive. Do any of you experience this and what do you do to alleviate the pain?
Dr. Bruno’s Response: The poliovirus affected neurons that turn on muscle fibers in all of your limbs, including the leg that you use to drive. You mention stiffness and then you mention pain. I'm not sure what stiffness means, but pain means that you're over-using your driving leg’s remaining, poliovirus damaged neurons. Over use/abuse is the leading cause of pain, muscle weakness and fatigue in polio survivors. So you need to do you less with your driving leg. Hand controls would be one option.

On the topic of the Vagus Nerve and Swallowing
Original Post: I have issues with the vagus nerve when I swallow. Sometimes when I try to swallow it goes up my throat into the nasal passage instead of going down. It doesn't matter if it's liquid or food. Is that from the polio damage to the vagus nerve?
Dr. Bruno’s Response: Yes. The vagus nerve and brain stem control centers (see diagram) control swallowing from the back of the throat down to the end of the digestive system and were damaged by the poliovirus. Polio survivors’ digestive “snake” has too little vagal activity throughout. This is why people with acute polio couldn't swallow liquids. With no place else to go, the liquid came out the nose.

Today, vagus damage causes trouble swallowing as well as constipation. Anyone with swallowing difficulty needs a barium swallow study to find out what’s happening from mouth to stomach and to make sure that there is no obstruction or pocketing in the esophagus or throat, or non-polio related conditions that also could cause problems swallowing.

On the topic of what Polio “looks like”
Original Post: Just a curious question. When people think of disability especially polio, they automatically think legs. I was wondering how many people in the Coffee House had arms that were more affected?
Dr. Bruno’s Response: POLIO ARMS AND POLIO LEGS...I can’t answer this question specifically regarding how many polio survivors had just one arm affected.
Combining our 1985 and 1990 Post Polio Survey data, 13% of polio survivors had at least one arm acutely affected while 28% had all four limbs affected; 24% of polio survivors had one limb affected while 34% had two limbs affected, which usually included one leg. But, obviously, some had one or both arms affected the latter sometimes referred to as "upside-down polios."

The “typical” polio survivor had their left foot remain paralyzed, after the acute stage was over.
On the topic of Bellies and Diet  2/11/2018
Dr. Bruno’s Original Post:  FOOD for THOUGHT:
POLIO DIET AND POLIO BELLIES *

Eat Well, Be Well Protein Diet
Slow Guts and Polio Bellies
*(Note: Dr. Bruno updated both of these articles for this publication)

On the topic of Diaphragm Paralysis  2/14/2018
Original Post:  Anybody have any problem with a paralyzed diaphragm?  Since I had pneumonia last spring, as soon as I have a little exertion, I lose my breath.  Testing showed the right side of my diaphragm is not working.
Dr. Bruno’s Response:  Contact Dr. John Bach, I refer to him as “the Lord of the Lungs” when it comes to polio.  Lots of polio survivors have only half of their diaphragm working and don't have problems.  His e-mail address is: bachjr@njms.rutgers.edu.
Additional Post:  I too have a paralyzed right diaphragm and cannot use oxygen.  Dr. Bach has been my doctor for the past 22 years and I have used a volume ventilator with no oxygen.

Diet and Weight Loss  2/21/2018
Dr. Bruno’s Original Post:  NEW DIET DATA:  "...people who cut back on added sugar, refined grains and highly processed foods while concentrating on eating plenty of vegetables and whole foods — without worrying about counting calories or limiting portion sizes — lost significant amounts of weight..."
Don’t forget the protein!

The Key to Weight Loss Is Diet Quality, Not Quantity, a New Study Finds
From the New York Times  Feb. 20, 2018
By Anahad O’Connor

Anyone who has ever been on a diet knows that the standard prescription for weight loss is to reduce the amount of calories you consume.  But a new study, published Tuesday in JAMA, may turn that advice on its head.  It found that people who cut back on added sugar, refined grains and highly processed foods while concentrating on eating plenty of vegetables and whole foods — without worrying about counting calories or limiting portion sizes — lost significant amounts of weight over the course of a year.

The strategy worked for people whether they followed diets that were mostly low in fat or mostly low in carbohydrates.  And their success did not appear to be influenced by their genetics or their insulin-response to carbohydrates, a finding that casts doubt on the increasingly popular idea that different diets should be recommended to people based on their DNA makeup or on their tolerance for carbs or fat.

The research lends strong support to the notion that diet quality, not quantity, is what helps people lose and manage their weight most easily in the long run.  It also suggests that health authorities should shift away from telling the public to obsess over calories and instead encourage Americans to avoid processed foods that are made with refined starches and added sugar, like bagels, white bread, refined flour and sugary snacks and beverages, said Dr. Dariush Mozaffarian, a cardiologist and dean of the Friedman School of Nutrition Science and Policy at Tufts University.
“This is the road map to reducing the obesity epidemic in the United States,” said Dr. Mozaffarian, who was not involved in the new study.  “It’s time for U.S. and other national policies to stop focusing on calories and calorie counting.”
The new research was published in JAMA and led by Christopher D. Gardner, the director of nutrition studies at the Stanford Prevention Research Center.  It was a large and expensive trial, carried out on more than 600 people with $8 million in funding from the National Institutes of Health, the Nutrition Science Initiative and other groups.

Dr. Gardner and his colleagues designed the study to compare how overweight and obese people would fare on low-carbohydrate and low-fat diets.  But they also wanted to test the hypothesis — suggested by previous studies — that some people are predisposed to do better on one diet over the other depending on their genetics and their ability to
metabolize carbs and fat. A growing number of services have capitalized on this idea by offering people personalized nutrition advice tailored to their genotypes.

The researchers recruited adults from the Bay Area and split them into two diet groups, which were called “healthy” low carb and “healthy” low fat. Members of both groups attended classes with dietitians where they were trained to eat nutrient-dense, minimally processed whole foods, cooked at home whenever possible.

Soft drinks, fruit juice, muffins, white rice and white bread are technically low in fat, for example, but the low-fat group was told to avoid those things and eat foods like brown rice, barley, steel-cut oats, lentils, lean meats, low-fat dairy products, quinoa, fresh fruit and legumes. The low-carb group was trained to choose nutritious foods like olive oil, salmon, avocados, hard cheeses, vegetables, nut butters, nuts and seeds, and grass-fed and pasture-raised animal foods.

The participants were encouraged to meet the federal guidelines for physical activity but did not generally increase their exercise levels, Dr. Gardner said. In classes with the dietitians, most of the time was spent discussing food and behavioral strategies to support their dietary changes.

The new study stands apart from many previous weight-loss trials because it did not set extremely restrictive carbohydrate, fat or caloric limits on people and emphasized that they focus on eating whole or “real” foods — as much as they needed to avoid feeling hungry.

“The unique thing is that we didn’t ever set a number for them to follow,” Dr. Gardner said.

Of course, many dieters regain what they lose, and this study cannot establish whether participants will be able to sustain their new habits. While people on average lost a significant amount of weight in the study, there was also wide variability in both groups. Some people gained weight, and some lost as much as 50 to 60 pounds. Dr. Gardner said that the people who lost the most weight reported that the study had “changed their relationship with food.” They no longer ate in their cars or in front of their television screens, and they were cooking more at home and sitting down to eat dinner with their families, for example.

“We really stressed to both groups again and again that we wanted them to eat high-quality foods,” Dr. Gardner said. “We told them all that we wanted them to minimize added sugar and refined grains and eat more vegetables and whole foods. We said, ‘Don’t go out and buy a low-fat brownie just because it says low fat. And those low-carb chips — don’t buy them, because they’re still chips and that’s gaming the system.’”

Dr. Gardner said many of the people in the study were surprised — and relieved — that they did not have to restrict or even think about calories.

“A couple weeks into the study people were asking when we were going to tell them how many calories to cut back on,” he said. “And months into the study they said, ‘Thank you! We’ve had to do that so many times in the past.’”

Calorie counting has long been ingrained in the prevailing nutrition and weight loss advice. The Centers for Disease Control and Prevention, for example, tells people who are trying to lose weight to “write down the foods you eat and the beverages you drink, plus the calories they have, each day,” while making an effort to restrict the amount of calories they eat and increasing the amount of calories they burn through physical activity.

“Weight management is all about balancing the number of calories you take in with the number your body uses or burns off,” the agency says.

Yet the new study found that after one year of focusing on food quality, not calories, the two groups lost substantial amounts of weight. On average, the members of the low-carb group lost just over 13 pounds, while those in the low-fat
The researchers took DNA samples from each subject and analyzed a group of genetic variants that influence fat and carbohydrate metabolism. Ultimately the subjects’ genotypes did not appear to influence their responses to the diets.

The researchers also looked at whether people who secreted higher levels of insulin in response to carbohydrate intake — a barometer of insulin resistance — did better on the low-carb diet. Surprisingly, they did not, Dr. Gardner said, which was somewhat disappointing. “It would have been sweet to say we have a simple clinical test that will point out whether you’re insulin resistant or not and whether you should eat more or less carbs,” he added.

Dr. Walter Willett, chairman of the nutrition department at the Harvard T. H. Chan School of Public Health, said the study did not support a “precision medicine” approach to nutrition, but that future studies would be likely to look at many other genetic factors that could be significant. He said the most important message of the study was that a “high quality diet” produced substantial weight loss and that the percentage of calories from fat or carbs did not matter, which is consistent with other studies, including many that show that eating healthy fats and carbs can help prevent heart disease, diabetes and other diseases.

“The bottom line: Diet quality is important for both weight control and long-term well-being,” he said.

Dr. Gardner said it is not that calories don’t matter. After all, both groups ultimately ended up consuming fewer calories on average by the end of the study, even though they were not conscious of it. The point is that they did this by focusing on nutritious whole foods that satisfied their hunger.

“I think one place we go wrong is telling people to figure out how many calories they eat and then telling them to cut back on 500 calories, which makes them miserable,” he said. “We really need to focus on that foundational diet, which is more vegetables, more whole foods, less added sugar and less refined grains.”

---

**On the Topic of How to get Protein   (2/23/2018)**

**Dr. Bruno’s Original Post:** Here’s another way to get your 75 Grams of Protein each day...

**Breakfast Bars: Which Ones Are Actually Good For You?**

*From The Bergen County Record*  
*Feb. 23, 2018*

They’re portable, tasty and a few are even good for you. And their popularity is surging. Most breakfast bars are made of cereal, combined with some protein, fat and sugar. They’re marketed as on-the-go morning meals or healthy snacks that can provide a late afternoon pick-me-up. So, how healthy are they?

**Fat And Sugar Guidelines**

WebMD offered some guidelines recently, suggesting that consumers look for bars that offer at least 3 grams of fiber and 5 grams of protein. The site also recommended bars that contain less than 35 percent calories from sugar. As for fat content, the site said some fat is necessary but that bars high in saturated fats are best left on the shelf.

Their recommendations for “best bars” included some familiar names, including Kashi Go Lean, Nature Valley Crunchy Granola Bars, Quaker Oatmeal Breakfast Squares, and Quaker Chewy Trail Mix Granola Bars. Less familiar names included Clif Bars (made with organic oats and soybeans), Odwalla Bars (made with whole fruit and grains), and Power Bar Harvest. These bars contain, on average, between 200-250 calories and 4-6 grams of fat.
Daily Meal Weighs In

In its recent report on breakfast bars, the Daily Meal provided its list of healthiest and unhealthiest bars.

At the top of the heap were Annie’s Organic Peanut Butter Chewy Granola Bars, KIND Blueberry Breakfast Bars, Go Raw Raisin Crunch Sprouted Bar, Cascadian Farm Harvest Berry Granola Bar, Kashi GoLean Plant-Powered Bars (Dark Chocolate Cashew Chia), and Balance Bare Sea Salt Caramel Nut.

(The site’s choice of unhealthiest bars, included familiar names from the cereal aisle. That list includes Kellogg’s Special K Chocolate Peanut Butter Protein Meal Bar, Kellogg’s Nutri-Grain Fruit and Oat Harvest Baked Apple Cinnamon, Quaker Oats Big Chewy Chocolate Chip, and General Mills Cinnamon Toast Crunch Milk N’ Cereal Bars.)

Good Housekeeping Picks

Health was a consideration, but the magazine said its goal was choosing options that were “satisfying, filled with whole, real ingredients and clock in around 400 calories to start your day.”


Some brands may be easier to find in health food stores or online. As with many breakfast foods, breakfast bars may contain allergens. Check packaging for warnings about milk, soy, nuts and gluten.

Additional Bruno “Bytes” are available for you to share by going to: http://www.papolionetwork.org/bruno-bytes.html

Scroll down the page (through the Current Month posts). Previous months are located there, and are available by “clicking” on them, in easily printable PDF format.

Would you like to see Dr. Bruno in “action”? The video from his 2015 Conference is now available.

Looking for a particular topic? Check out the Bruno Bytes “Index by Subject”