Do You Think Carbs are Fattening?

Many people mistakenly think that carbohydrate are fattening. They are not. Eating too much of anything including them is. I get more than 50% of my daily calories from carbs though whole grains, fruits, veggies, and beans *. We need carbs to function at our physical and mental best (see next page). Carbs people do not realize is the primary source of energy when you exercise hard and the brains primary fuels source. The problem is that people overeat carbs especially if they are processed carbs, which are not fruits, veggies whole grains. Just because they are not fattening they can become fattening if overeaten. The reason is people do not get sated (satisfied) when they eat them so they eat too much of them. I understand this. I could easily eat an entire box of cheerios with cold milk. This is because eating processed carbs, carbs in isolation, or too many of them can increase blood sugar levels, which elevates insulin. Insulin can stimulate hunger, the desire to eat. I typically then suggest simply that you do not eat carbs in isolation (have with other foods, especially protein), eat only unprocessed forms, and eat a reasonable amount.

Interesting Points: You need to eat carbs daily. Our body has a limited ability in storing carbs (1800 calories) unlike fat (60,000 to 100,00 calories). See third page. Therefore we need to consume them daily. See more on this on next page.

** I know beans are veggies, but I want to highlight that I eat a lot of them and they are loaded with fibers and protein as well as carbs. They are super foods to me.*

Reasonable Amounts of Carbs

So reasonable amounts I typically recommend is for most women to get **at least** 125-150 grams or 500-600 calories from carbs a day, while men should get 150-200 grams or 600-800 calories. This number is much higher for those who exercise intensely. The lowest I can ever suggest to people is a low carb diet and that is 100 grams or 400 calories from carbs a day. I also suggest to spread your carbs throughout the day at least 100 grams at each meal, which also includes healthy fats and protein. See how research supports my stance on next page. Even though you should eat carbs avoid eating processed carbs and added sugars (see article). The American Heart Association suggests an added-sugar limit of no more than 100 calories per day (about 6 teaspoons or 24 grams of sugar) for most women and no more than 150 calories per day (about 9 teaspoons or 36 grams of sugar) for most men. Dietary Guidelines for Americans recommends limiting calories from added sugars to less than 10 percent of total calories per day. Food labels list added sugar amounts. There's no nutritional need or benefit that comes from eating added sugar.

It is not easy to convert carbs into fat. The metabolic cost of converting excess carbohydrate into body fat is 23 percent of the ingested calories. BUT THEY CAN STILL BE CONVERTED INTO BODY FAT IF OVER CONSUMED, Excess dietary fat, on the other hand, is easily stored as body fat; the metabolic cost of converting excess dietary fat into body fat is only 3 percent.

Research supports my stance. In an observational study involving 1,114 men and women, soluble fiber intake found in whole foods was associated with reduced abdominal fat. For each 10-gram increase in soluble fiber, there was a 3.7% decrease in belly fat accumulation. One large study involving 2,854 adults found that high-fiber whole grains were associated with reduced abdominal fat, while refined grains were linked to increased abdominal fat. This is only suggested with people who are trying to lose weight and are inactive. A study found diets high in refined carbs and low in fiber appear to have the opposite effect on appetite and weight gain, including increases in belly fat (see studies). **Do not abstain from carbs. Rather eat them but eat the right ones and the right amount.**

Carbs and the Brain

The human brain consumes up to 20% of the energy used by the entire human body which is more than any other single organ. The brain represents only 2% of body weight yet it receives 15% of the cardiac output and 20% of the total body oxygen consumption. Even though the brain is composed of 60% fat, it is designed to be fueled by glucose. The brain accounts for 25% of the total body glucose utilization (source).

Requirements

The *Dietary Guidelines for Americans* notes that carbohydrates should comprise 45 to 65 percent of your daily caloric intake. Pick carbohydrates that are plentiful in fiber, vitamins and minerals. The American Heart Association advocates eating five servings daily of vegetables and four servings of fruits. Also, try to eat three to six daily servings of whole grains such as oatmeal, brown rice, millet, barley and whole-wheat bread and pasta.

Carbs and Activity

The human body has a limited store of carbohydrate (see source):
The average 150-pound (68 kg) man has about 1,800 calories of carbohydrate stored in the liver, muscles, blood, and body fluids. That is enough for about 18 to 20 miles of running. In comparison to the approximately 1,800 calories of stored carbohydrate, the average lean 150-pound (68 kg) man also has 60,000 to 100,000 calories of stored fat—enough to run hundreds of miles.
The carbohydrate in the muscles is used during exercise. The carbohydrate in the liver is released into the bloodstream to maintain a normal blood glucose level and feed the brain (as well as the muscles). These limited carbohydrate stores influence how long you can enjoy exercising. When your glycogen stores get too low, you hit the wall—that is, you feel overwhelmingly fatigued and yearn to quit. In order to burn fat for energy you need carbohydrate in order for the fat burning reactions. The saying is “ Fat burns in the flame of carbohydrate”. Research highly supports this. During low-level exercise such as walking, the muscles burn primarily fat for energy. During light to moderate aerobic exercise, such as jogging, stored fat provides 40 to 60 percent of the fuel. When you exercise hard, as in sprinting, racing, lifting weights, or other intense exercise, you rely primarily on carbs tired in the form of glycogen. According to N. Clark a well known sports nutritionist fitness exercisers can get away with a lower carbohydrate intake than elite athletes who push themselves to exhaustion can. Too little carbs will limit performance. Many studies have been done on it and when it comes to sports it is termed “hitting the wall” or “bonking”.