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Eating Right for your Heart and your Health Glycemic Index -- Fiber -- Calories -- Fats

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Your Life Your Health

The Examiner

September 26, 2002

"Get something delicious and interesting, but make sure it's low calorie, low fat, low sodium and high in phytochemicals." Have you ever given this response to the question, "Honey, what do you want me to get at the grocery store?" Most of us want to be healthy and most of us want to make healthy choices in our eating habits, but we often fail at the point of decision making, i.e., the decision of where we're going to eat and what we going to stock in our pantry and refrigerator. In reality, for most of us, once the wrong foods are within our grasp, our wrong choice is already made.

In order to make the right choices in the food we eat, we must consider a number of food characteristics. Some of these are:

1. The Glycemic Index of foods.
2. The Fiber content of foods.
3. The caloric content of foods.
4. The fat content of foods. We will address why we need fat and why if you're going to eat a "fatty meal," you should not eat rice or potatoes with it. The damage from a "meat and potatoes" diet, comes as much if not more so from the potatoes, than from the meat."
5. The relationship of exercise to dietary requirements. We'll talk about why mankind was designed to be mobile rather than sedentary.
6. How the burning of calories through exercise contributes to your health.
7. How many illnesses are caused by or worsened by obesity.

Glycemic Index

In Your Life Your Health of August 8, 2002, we considered the "glycemic index," which we defined as "a method used to classify foods according to their blood glucose-raising potential. The glycemic index compares the level of glycemia (blood sugar) after equal carbohydrate portions of foods and ranks them relative to a standard (usually glucose or white bread)."

The glycemic index is important because when we eat foods which raise our blood sugar rapidly, we trigger a rise in our insulin levels in the blood. Because fasting hyperinsulinemia (increased insulin in the blood) has been found to be an independent risk factor for coronary heart disease, differences in the levels of insulin in the blood caused by food after eating can no longer be ignored. Even a small physiologic increase in insulinemia for as little as 3 to 5 days leads to severe insulin resistance in healthy young subjects.

Your blood insulin levels can be influenced simply by choosing one fruit, which has a moderate glycemic index -- apples, oranges, peaches -- over another fruit -- grapes, bananas -- which has a high glycemic index. You don't stop eating things you enjoy, you simply substitute healthier foods, which you also enjoy, for foods which have a real or potential negative health effect.

The more you learn about the glycemic index of foods, the wiser your choices can be. After some experience, you will tend to make the right choices without really thinking about it.

Dietary Fiber

One of the most important aspects of the diet, and one which has been greatly ignored in western culture, is dietary fiber. Fiber comes in two forms: soluble and insoluble. Fiber is important for the health of our gastrointestinal tract. Low fiber can cause constipation, which can result in hemorrhoids and even can contribute to the development of lesions in the colon. Diets high in fiber can improve the cholesterol level. Good fiber is found in the following foods:

1. Dried beans, peas, and other legumes including: baked beans, garbanzos, kidney beans, pinto beans, split peas, dried lima beans, black beans
2. Bran cereals: Bran Buds, All-Bran, 100% Bran, Raisin Bran, Most, Cracklin Bran³. Fresh or frozen lima beans: Fordhook, baby lima
4. Fresh or frozen green peas
5. Dried fruit, highest being figs, apricots, and dates
6. Raspberries, blackberries and strawberries
7. Sweet corn, on the cob or as kernels
8. Whole-wheat and other whole-grain cereal products: rye, oats, buckwheat, stone- ground cornmeal, whole- grain bread, whole-grain pasta, products made from whole- grain flours. Broccoli
10. Baked potato with the skin: mashed potatoes, boiled potatoes * NOT French fries because of high fat content. Beans: green snap, pole beans, broad beans. Plums, pears, and apples - skin is edible and high in pectin too. Raisins and prunes - not as high as others. Greens: spinach, beet greens, kale, collard greens, Swiss chard, turnip greens. Nuts: almonds, Brazil nuts, peanuts, walnuts * note the high fat in these foods
16. Cherries
17. Bananas
18. Carrots

19. Coconut: dried or fresh * note the high fat content of this food

20. Brussels sprouts

In considering the glycemic index and the fiber content of foods, you begin to see the need for considering both. While carrots, bananas, potatoes and raisins have high fiber content, they also have a very high glycemic index. While these foods do not have to be eliminated from the diet, they should be consumed in modest amounts. And, the majority of your dietary fiber should come from foods which have a low glycemic index.

Caloric Content

The third consideration for good choices in our diet is the caloric content of foods. The term "caloric dense" foods refers to those foods which ounce for ounce have more calories than others. That means that if you eat a food which is "caloric dense" you will gain weight faster than if you eat an equal weight of a food which is not high in calories.

Carbohydrates and protein have only 4 Kcal per gram, while fat has 9 Kcal per gram. This means that if you are eating a meal with a high fat content, you will consume more calories than if you ate an equal weight of food which was high in protein and/or carbohydrates.

Calories are similar to bank deposits. We all know that if we deposit \$1000 in our checking account, and then we write checks for \$2,000, we will be overdrawn and we will be penalized for the overdraft. Similarly, each morning your body has a certain number of calories which you can consume that day without gaining weight. If you consume more, you will be overdrawn -- overweight -- if you consume fewer, you will lose weight.

Generally, for a moderately active person, it takes 15 calories per pound of body weight per day to maintain your present weight. If you eat more, you will gain weight; if you eat less, you will lose weight. Activity level dramatically affects this formula, therefore if you are more active, you can eat more calories and if you are less active you must eat fewer calories. As we get older, our calorie need, to maintain our body weight, decreases significantly because of a dramatic, and sometimes unperceived, decrease in activity level. That is one reason why we tend to gain weight as we get older.

Recalling our checking account analogy, if you want to spend more, you have to deposit more. Therefore, if you want to eat more and not gain weight, you have to do more. Sometimes, however, it is possible to get into a habit of spending more, such that when your deposits go down, you don't slow down on your spending. Similarly, be careful, that you don't get addicted to eating more such that when you stop doing more, you just keep on eating.

One other fact which you must keep in mind in order to consider the caloric content of food in regard to health and weight is that there are about 3500-4000 calories in a pound of fat on your body. That means that if you want to lose a pound, you have to

eat 3500-4000 fewer calories or increase your activity level to consume more calories.

If you want to lose a pound of fat and if you need 2000 calories per day to maintain your present weight, you will have to decrease your diet to 1500 calories for eight days in order to lose one pound.

Most often, it seems to us that it is easy to gain weight and hard to lose weight. This formula helps you understand how that seems to be the case. Also, if you overeat by a single apple a day, which represents about 100 extra calories a day and you do that for a year, you will add 365×100 or 36,500 calories more than you need.

Dividing that by our formula of 3500 calories per pound of fat, this means that in one year of overeating by only one apple a day, you will gain ten pounds. Conversely, if you are patient and consume 100 calories per day less than you need, in one year you will lose 10 pounds.

Fat Content

A fourth consideration in your dietary choices is the fat content of foods. Remember, not only are fats "calorie dense" but they also contribute to the raising of your cholesterol and triglycerides both of which contribute to the development of heart disease. Except in unusual circumstances, such as severe liver disease, we all need some fat in our foods. Children particularly need a diet which has fat content because one of the building blocks for the nervous system is fat.

Fat is what makes most food taste good. And, while there are delicious foods which do not have animal fat in them, most Americans are addicted to the flavor of animal fat. If you are going to contribute significantly to your health by making wise dietary choices, you will have to make a decision to "wean" yourself from this addiction.

One of the major problems in dealing with fats in processed foods is that "trans" fats have previously not been disclosed on the labels of foods. Trans fats, also called trans fatty acids, are the product of a process called partial hydrogenation that converts liquid vegetable oils into solid fats. Used to make margarine, shortening, baked goods and fast foods, the trans fats increase a food's shelf life and enhance its flavor. Trans fats also:

1. Increase the cholesterol
2. Increase the LDL
3. May decrease the HDL

When many fast food chains substituted vegetable oils for animal fat in their fried foods, they were applauded, but in reality these fast food chains used trans fats rather than vegetable oils essentially negating the health benefits of the vegetable oils. Unaltered vegetable oils are generally healthy -- in moderate amounts. The best are the monosaturated fatty acid oils such as safflower oil and olive oil.

You will be surprised at how many restaurants will prepare your food in a heart healthy fashion if you will ask. One local restaurant regularly does this for me, particularly when the choice was "change the way you prepare the food, or I will not eat here any longer." This change resulted from my asking what oil was used to prepare a particularly favorite dish. The answer was, "Lard!" Lard is a solid, animal fat and eaten in adequate amounts over your life will kill you. Not only is the same food prepared with olive oil healthy, it actually tastes better. In order to make the change, you have to care and you have to ask. If the restaurant is unwilling or unable to make the change, change restaurants.

Glycemic index, fiber, calories, fat content -- ask yourself, do I want to live longer and do I want to be healthier. If you do, then make a choice. It's never too late to start. Remember, it's your life and it's your health.