

# Nutrition 411

Winter 2010

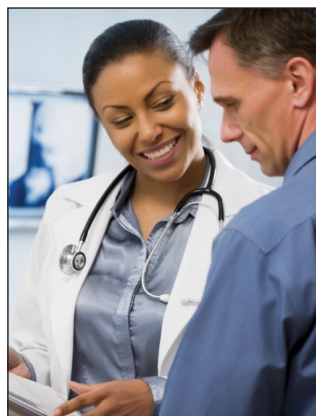
SPECIAL ISSUE ON  
**DIABETES**



## A Personal Message From Your Registered Dietitian

An estimated 20.8 million Americans (7% of the total population) have diabetes mellitus. Another 54 million Americans older than 20 years of age have prediabetes. If you were recently diagnosed with prediabetes or diabetes, you do not need to panic or feel alone. However, you do need to understand diabetes and recognize the importance of glucose control in the prevention of medical complications.

This newsletter will provide you with easy-to-understand information that you can integrate into your own unique lifestyle. In this issue of *Nutrition 411*, you will find information about artificial sweeteners, nutrition food labels, hyperglycemia, the A1c test, and much more.



### FIBER FACTS

## The Benefits of a High-Fiber Diet

Studies have shown that people with type 1 diabetes who consume high-fiber diets have lower blood glucose levels, while people with type 2 diabetes may have improved blood sugar, lipids, and insulin levels. So, not only does fiber help control blood glucose, but it also helps reduce cardiovascular disease risk.

The following tips can help you increase the fiber in your diet:

- Eat at least 3 ounces (oz) of whole grains/day—1oz = one slice of bread, ½ cup (C) of cooked pasta, ½ C cooked hot cereal, or a serving of cold breakfast cereal
- Consume more fruits and vegetables—at least 2 C of fruits and 2½ C of vegetables each day
- Choose whole (fresh, frozen, or dried) vegetables and fruits over juices
- Serve legumes (dried beans and peas) with your meals regularly
- Include nuts and seeds in your diet several times each week
- Increase the amount of fiber in your diet gradually, using a variety of food sources; try to include one fiber-rich food at every meal
- Drink plenty of water to enhance the effectiveness of fiber and to prevent constipation

### HERB POWER

*Many fresh herbs contain as much or more antioxidant power than fruits and vegetables.*



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### PASS THE BREAD

*Choose a bread that is 100% whole grain or whole wheat that contains less than 250 milligrams of sodium/slice and provides at least 2 grams of fiber/slice.*

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## Look for the 'RD'

Get your nutrition advice from a registered dietitian (RD). RDs are the real deal!

# RD

### DECODING THE GROCERY STORE

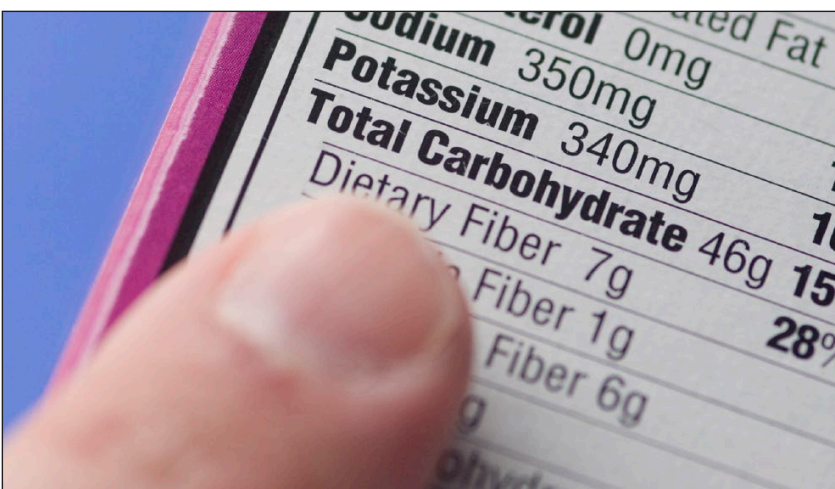
## Understanding Carbohydrates on Food Labels

**Total carbohydrate** refers to the total amount of carbohydrates in one serving of a product. One gram (g) of carbohydrate contains 4 kilocalories (kcal)/g. Typically 15 g of carbohydrates=1 carb serving.

**Sugar alcohols**, also known as polyols, are used as sweeteners and bulking agents in processed foods. They occur naturally in foods and come from plant products such as fruits and berries. As a sugar substitute, they provide about one half to one third fewer calories than regular sugar.

The biggest problem with the net carb approach is it fails to take into account that different carbohydrates affect the body's insulin response to different degrees. For example, table sugar (sucrose) causes insulin levels to rise more than fruit sugar (fructose), but they are both considered net carbs. In addition, proteins and fats, as well as the size of the overall meal, also affect the insulin response. Simply looking at the net carb grams does not accurately reflect how the food affects your body.

The American Dietetic Association and the American Diabetes Association recommend two different methods—subtracting only one half of the grams of sugar alcohols from the total carbohydrate count, and subtracting one half of the fiber grams only if the product contains more than 5 g of fiber/serving.



### THREE MEALS, THREE CHOICES

## Adding Variety to Your Diet

All of these meals contain 3 carbohydrate choices (45 g carbohydrate):

### Breakfast

- One flour tortilla (7"–8") filled with ¼–½ cup (C) scrambled egg or Egg Beaters®, ¼ C salsa, 1 ounce (oz) low-fat cheese of your choice, and ½ C cooked mushrooms, onions, and/or diced pepper
- A bowl of oatmeal (made with ½ C oats), mixed with 2 tablespoons raisins and 1 small, diced apple
- One bagel (2 oz) with 1 oz low-fat cream cheese and 1¼ C whole strawberries

### Lunch

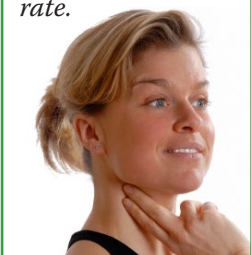
- Two slices whole-grain bread made into a sandwich with deli turkey meat and low-fat cheese, served with 1 C of vegetable soup
- A lean cheeseburger on a bun and 16–25 (3 oz) baked French fries
- Two lean beef or chicken tacos (each in a 6" shell) with cheese, lettuce, and tomato and 1 C applesauce

### Dinner

- Pork tenderloin, ½ C yam or sweet potato, ½ C corn, and ⅓ C bread stuffing
- Beef stir-fry made with lean beef, ⅔ C pasta, and ½ C mixed cooked vegetables
- 1½ C chili with beans, one small piece of cornbread (2"×2"), and one small orange

### GET RESULTS

Exercise at your ideal level of exertion. Check your pulse against your maximum heart rate (MHR). Calculate your MHR by subtracting your age from 220. Exercise at 60%–80% of your maximum heart rate.



**Fiber** is a food substance that resists chemical digestion and passes through the system relatively unchanged.

**Other carbohydrate** is the difference between total carbohydrate and the sum of dietary fiber, sugars, and sugar alcohol, if declared. Artificial sweeteners contain zero calories and do not contain carbohydrates; so, they do not cause blood sugar to elevate.

The definition of **net carbs** used by most manufacturers is any carbohydrates that are left over after taking the total carbohydrate count and subtracting fiber, the sweetener glycerin(e), the sugar alcohols, and polydextrose (a bulking agent). The general consensus is that net carb value is supposed to represent the grams of carbohydrates contained in a product that will have a negative impact on your insulin levels (causing levels to increase). This is important, because higher increases in insulin result in more fat storage.

## Five Steps for Treating Hypoglycemia

Hypoglycemia, or low blood sugar, can occur for a variety of reasons, including not eating enough food, exercising too much without having an extra snack, or taking too much diabetes medicine. Signs of low blood sugar include:

- Sweatiness
- Cold, clammy skin
- Shakiness
- Irritability
- Nervousness
- Headache
- Blurred vision
- Weakness
- Numbness
- Hunger
- Slower response time
- Sleepiness
- Dizziness
- Confusion
- Nausea

If you think that you might have low blood sugar, you should test yourself immediately. If your blood sugar is low or you are not able to access your testing equipment because you're not at home, follow these steps:

- 1. Eat a rapid-acting carbohydrate: (choose one):**
  - ½ cup (C) orange or apple juice
  - 1 C of skim milk
  - One small apple or pear
  - Glucose packet or tablets (follow package directions)
  - Other food or beverage as recommended by your physician or dietitian
- 2. Wait 15 minutes**
- 3. Test blood sugar**
- 4. If still low, repeat steps 1, 2, and 3**
- 5. When blood sugar is normal:**
  - Immediately eat a snack if it is more than 30 minutes until your next meal



### SNACK ATTACK

*Get into the habit of always keeping snacks in your purse, glove compartment, or desk at work. Consider a snack mix made of dried fruits and nuts, individual peanut butter packets with crackers or an apple, or vacuum-packed tuna.*

### MAILBOX

## I've recently noticed many new sweeteners at the store. Can you tell me a little about these products?

You didn't specify which sweeteners you were speaking of in your letter, but you probably meant Sweetleaf® Sweetener™, Truvia™, or PureVia™. All three of these sweeteners are made from the stevia herb. Stevia has seen use outside of the United States for decades. In fact, the first documented use of stevia was in 1887 by the scientist Antonio Bertoni.

Stevia is 30 times sweeter than sugar in its unprocessed form and 250–300 times sweeter once it is purified. Sweetleaf, Truvia, and PureVia contain 0 calories. You can use both Sweetleaf and Truvia for cooking and baking. Both products' Web sites feature a recipe



section, and both manufacturers are in the process of formulating bulk baking products. Truvia offers a conversion chart on its Web site for cooking and baking purposes (¾ teaspoons (tsp) Truvia=2 tsp sugar).

The World Health Organization and the US Food and Drug Administration have deemed stevia safe in moderate amounts. Stevia is found in many beverages, including soda and juice products manufactured by the Coca-Cola Co and Odwalla. Stevia also is used in gum, yogurt, pickles, dried seafood, fish, meat, vegetables, condiments, frozen foods, and confectionaries.



## GARLIC: THE WONDER HERB

Full of flavor and antioxidants, garlic is great when paired with vegetables such as spinach or tomatoes, poultry, sauces, and soups.



## FOOD FOR THOUGHT

All foods can fit into a healthful diet, but “can” is the important word here. It all depends on what your food intake looks like over an extended period of time.

## WHAT'S YOUR NUMBER

# Understanding the A1c Test

The A1c test, which is sometimes referred to as glycosylated hemoglobin or HbA1c, is an important test that reflects your average blood glucose levels over 2–3 months, providing a more complete view of your overall control. You should use the A1c test in combination with daily monitoring.

Each 1% reduction in A1c results in a reduction of the risk of microvascular diabetic complications (nephropathy, neuropathy, and retinopathy) of approximately 40%. Good A1c results also may help to reduce the risk of macrovascular complications, including heart disease and stroke, although not all studies are conclusive on this point.

Control of blood pressure and cholesterol also is important. This is sometimes referred to as the ABCs:

- A**1c
- B**lood pressure
- C**holesterol (total cholesterol)

Hemoglobin is a protein found in red blood cells. Red blood cells normally live for 90–120 days. Glucose attaches to hemoglobin in the

blood, and stays attached for the entire life of the red blood cell. The A1c test measures how much glucose is attached to your hemoglobin. The A1c result percentages are similar to the blood glucose readings that you see when monitoring yourself at home.

A1c	Average Blood Glucose (past 2–3 months)
6%	135 mg/dL
7%	170 mg/dL
8%	205 mg/dL
9%	240 mg/dL
10%	275 mg/dL

dL=deciliters, mL=milliliters

In general, the American Diabetes Association recommends a goal of 7% for all people with diabetes, and the American Association of Clinical Endocrinologists recommends a goal of 6.5%. However, this varies by individual. Your physician, dietitian, or diabetes educator can help you determine your goal.

Help control blood sugar and lose weight with delicious Dreamfields®

- With only 5 grams of digestible carbs per cup, Dreamfields helps you manage blood sugar and your weight.
- Dreamfields has 5 grams of fiber, similar to whole wheat pasta.
- Dreamfields tastes like traditional pasta—your entire family will love it!



For \$1 off coupon visit [www.TryDreamfields.com/RD411](http://www.TryDreamfields.com/RD411)

## Sesame-Soy Edamame & Pasta Salad



- 1 box Dreamfields® Rotini
- 3 cups frozen shelled edamame
- 1 cup radishes, diced
- ½ cup packed fresh cilantro, stems removed, chopped
- 3 green onions, thinly sliced

### DRESSING

- 3 tablespoons vegetable or canola oil
- 2 tablespoons pickled ginger, chopped
- 2 tablespoons rice wine vinegar
- 2 tablespoons light soy sauce
- 2 teaspoons sesame oil
- ½ teaspoon black pepper
- ½ teaspoon hot sauce
- 3 cloves garlic, minced

**Makes 10 Side Dish Servings**  
 Calories: 240  
 Protein: 11g  
 Digestible Carbohydrate: 12g\*  
 Fiber: 6g  
 Fat: 7g

- 1 Cook pasta according to package directions. With 3 minutes left to cook pasta, add edamame. Drain; rinse with cold water and drain again.
- 2 Meanwhile, in small bowl, whisk together dressing ingredients; set aside.
- 3 In large bowl, toss pasta and edamame with radishes, cilantro and green onions. Add dressing; toss to coat.
- 4 Serve at room temperature or cover and refrigerate to chill.

\* If traditional pasta is used in this recipe there is a total of 36g carbohydrate.