#### **Nutrition Facts** 4 servings per container Serving size 1 1/2 cup (208g) Amount per serving Calories % Daily Value\* **Total Fat 4g** Saturated Fat 1.5g 8% Trans Fat 0g Cholesterol 5mg 2% Sodium 430mg 19% **Total Carbohydrate** 46g 17% Dietary Fiber 7a 25% Total Sugars 4g Includes 2g Added Sugars 4% Protein 11g Vitamin D 2mcg 10% Calcium 260mg 20% Iron 6mg 35% Potassium 240mg 6% The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

Dietary fiber is a nutrient to get more of.

# Dietary Fiber

Diets higher in dietary fiber can increase the frequency of bowel movements and can reduce the risk of developing cardiovascular disease.

#### What It Is

Dietary fiber is a type of **carbohydrate** made up of many sugar molecules linked together. But unlike other carbohydrates, dietary fiber is bound together in such a way that it cannot be easily digested in the small intestine.

There are **two types** of dietary fiber:

- **Soluble dietary fiber** dissolves in water to form a thick gel-like substance in the stomach. It is broken down by bacteria in the large intestine and provides some calories.
- **Insoluble dietary fiber** does not dissolve in water and may pass through the gastrointestinal tract relatively intact and, therefore, is not a source of calories.

#### Where It Is Found

Naturally occurring dietary fiber is found in a variety of foods, including:

- Beans and peas
- Fruits
- Nuts
- Seeds
- Vegetables
- Wheat bran
- Whole grains (such as whole oats, brown rice, popcorn, and quinoa) and foods made with whole grain ingredients (such as breads, cereals, crackers, and pasta).

#### **What It Does**

- Soluble dietary fiber can interfere with the absorption of dietary fat and cholesterol. This, in turn, can help lower low-density lipoprotein (LDL or "bad") cholesterol levels in the blood. Soluble fiber can also slow digestion and the rate at which carbohydrates and other nutrients are absorbed into the bloodstream. This can help control the level of blood glucose (often referred to as blood sugar) by preventing rapid rises in blood glucose following a meal.
- **Insoluble dietary fiber** can speed up the movement of food and waste through the digestive system.
- Both soluble and insoluble dietary fiber can make you feel full, which may lower your calorie intake if you eat less and stay satisfied longer.



### **Health Facts**

- Many Americans do not get the recommended amount of dietary fiber. Dietary fiber is considered a "nutrient of public health concern" because low intakes are associated with potential health risks.
- Diets higher in dietary fiber can increase the frequency of bowel movements and can reduce the risk of developing cardiovascular disease.
- The Dietary Guidelines for Americans recommend consuming a variety of foods that are good sources of dietary fiber. The guidelines also recommend consuming at least half of grains as whole grains and limiting the intake of refined grains and products made with refined grains.
- Dietary Fiber on the Nutrition Facts label includes naturally occurring fibers in plants and certain isolated or synthetic non-digestible carbohydrates added to food that the U.S. Food and Drug Administration has determined have beneficial physiological effects to human health. These isolated or synthetic non-digestible carbohydrates include: alginate, arabinoxylan, beta-glucan soluble fiber, cellulose, cross linked phosphorylated RS4, galactooligosaccharide, glucomannan, guar gum, high amylose starch (resistant starch 2), hydroxypropylmethylcellulose, inulin and inulin-type fructans, locust bean gum, mixed plant cell wall fibers (a broad category that includes fibers like sugar cane fiber and apple fiber, among many others), pectin, polydextrose, psyllium husk, and resistant maltodextrin/ dextrin.

## The Scoop on Grains

Grains are the seeds from certain cereal crops grown for food. Examples of grains include barley, cornmeal, millet, oats, rice, and wheat. There are several types of grains:

- Whole grains include the entire grain seed (usually called the "kernel"), which consists of the bran, germ, and endosperm—nothing has been added or taken away by processing. Whole grains contain dietary fiber and other carbohydrates, protein, vitamins, minerals, and beneficial fats. Whole grains are consumed either as a single food (such as brown rice, oatmeal, and popcorn) or as an ingredient in food (such as in breads, cereals, crackers, and pasta).
- Refined grains have been processed (also called milled) to remove the bran and germ from the grain. This is done to give the grains a finer texture, lighter color, and longer shelf life. But, processing also removes dietary fiber, iron, B vitamins, and other nutrients.
- Enriched grains have the key nutrients that were lost during processing restored. Typically, this includes iron and B vitamins (thiamin, riboflavin, and niacin). Most refined grain products in the United States are enriched, and often there will be a statement on the food package indicating that the product is "enriched." Examples of enriched grain products include enriched white rice and enriched white bread.

Many grain-based foods are also **fortified** with *additional vitamins and minerals*. These are considered "nutrients to get more of" because they are generally lacking in the American diet. For example, many ready-to-eat cereals and snack bars are fortified with calcium.



#### For Increasing Dietary Fiber in Your Diet

Use the **Nutrition Facts** label as a tool for increasing consumption of dietary fiber. The Nutrition Facts label on food and beverage packages shows the amount in grams (g) and the % Daily Value (%DV) of dietary fiber per serving of the food.

Food manufacturers may voluntarily list the amount in grams (g) per serving of soluble dietary fiber and insoluble dietary fiber on the Nutrition Facts label (under Dietary Fiber), but they are required to list soluble dietary fiber and/or insoluble dietary fiber if a statement is made on the package labeling about their health effects or the amount (for example, "high" or "low") contained in the food.

The Daily Value for dietary fiber is 28 g per day. This is based on a 2,000 calorie daily diet—your Daily Value may be higher or lower depending on your calorie needs

- Compare and choose foods to get 100% DV of dietary fiber on most days. And remember:
  - 5% DV or less of dietary fiber per serving is considered low
  - 20% DV or more of dietary fiber per serving is considered high
- Look for whole grains on the ingredient list on a food package. Some examples of whole grain ingredients are barley, brown rice, buckwheat, bulgur, millet, oatmeal, quinoa, rolled oats, whole grain corn, whole grain sorghum, whole oats, whole rye, and whole wheat.
  - Tip: Ingredients are listed in descending order by weight—the closer an ingredient is to the beginning of the list, the more of that ingredient is in the food.
- Try whole grains (such as brown rice, bulgur, couscous, and quinoa) as side dishes and switch from refined to whole grain versions of commonly consumed foods (such as breads, cereals, pasta, and rice).

- Limit refined grains and products made with refined grains (such as cakes, cookies, chips, and crackers), which can be high in added sugars, saturated fat, and/or sodium and are common sources of excess calories.
- Start your day with a bowl of whole grain breakfast cereal (such as bran or oatmeal) that is high in dietary fiber and low in added sugars. Top your cereal with fruit for sweetness and even more fiber!
- Choose whole fruit (fresh, frozen, dried, and canned in 100% fruit juice) as snacks and desserts and add fruits to salads and side dishes.
- Keep raw, cut-up vegetables handy for quick snacks. Choose colorful dark green, orange, and red vegetables, such as broccoli florets, carrots, and red peppers.
- Add beans (such as garbanzo, kidney, or pinto), lentils, and peas to salads, soups, and side dishes—or serve them as a main dish.
- Try unsalted nuts and seeds in place of some meats and poultry.