

## A Primer on Whole Grains and Healthful Eating

Any way you spoon it, slice it, crunch it or fork it, foods made with whole grains—such as whole grain cereals, breads, crackers, pasta and rice to name a few—offer health benefits that go a long way toward helping you live well.

### Did You Know...

- Whole grains provide more than just fiber?
- Eating the right amounts of whole grain foods as part of a healthy diet is linked with reduced risk of heart disease, certain cancers and type 2 diabetes, and helps in managing your weight?
- Today's dietary recommendations advise eating half of your grain-food servings as whole grains—for 3 or more servings of whole grains each day?
- According to the United States Department of Agriculture (USDA), only 7 percent of Americans get the daily amount of whole grains that is recommended in the *2005 Dietary Guidelines for Americans*? Most eat less than one serving of whole grains a day.

### Whole Grain Basics

A whole grain is the entire edible part of any grain, such as wheat, oats, corn and rice, among others. Eating foods made from whole grains gives you the nutritional benefits of the entire grain.

- The bran contributes fiber, B vitamins, protein and some minerals.
- The endosperm supplies mostly carbohydrate (as starch), along with protein and some B vitamins.
- The germ contributes B vitamins, vitamin E, some minerals, antioxidants and phytonutrients (protective substances in plants).

Whole grains may be eaten whole, cracked, split, rolled, flaked or ground. Most often, they are milled into flour

### ANATOMY OF A WHOLE GRAIN

Whole grains contain three layers:

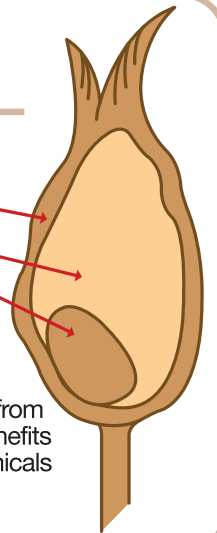
**The bran** (fiber-rich outer layer)

**The endosperm** (middle part)

**The germ** (nutrient-rich inner part)

In contrast, when grains are milled, or refined, the bran and germ portions are removed, leaving only the endosperm.

When you eat a variety of foods made from whole grains, you get the nutritional benefits of the entire grain, including phytochemicals (protective plant substances), vitamins, minerals and fiber.



and used to make cereals, breads, crackers, pasta and other grain-based foods. Some common whole grains include whole wheat, whole oats/oatmeal, whole-grain corn, popcorn, whole-wheat or graham flour, whole-grain barley, brown rice, whole rye, whole bulgur (cracked wheat) and buckwheat. Other whole grains that may be less familiar include amaranth, millet, quinoa, sorghum and triticale.

When grains are milled, or refined, the bran and germ portions are removed, leaving only the endosperm. Most refined grains are enriched with some of the nutrients lost during the milling process, including certain B vitamins and iron. By law, enriched grains also must be fortified with folic acid, making enriched-grain products an important source of this B vitamin that helps to decrease the risk of certain types of birth defects.

### Six Great Reasons to Go Whole Grain

#### 1. Get benefits beyond fiber.

Fiber contributes to the health benefits of whole grains, but that's not the whole story. Whole grains contain a bundle of nutrients, including vitamins and minerals, as well as hundreds of phytonutrients that we're learning more about every day. Individually, these nutrients and fiber offer important health

benefits. Together, as the “whole grain,” they work in powerful ways to protect your health.

2. *Help protect the heart.*

A healthy diet rich in whole grain foods is linked to a lower risk of heart disease. Whole grain foods are naturally low in fat and cholesterol, and the combination of fiber, antioxidants and phytonutrients may help lower blood cholesterol levels.

3. *Help reduce cancer risk.*

Health experts recommend eating whole grains as part of a low-fat diet to reduce the risk of some types of cancers.

4. *May help prevent, delay or control diabetes.*

Eating more whole grains and other plant foods in combination with a low- to moderate-fat diet may lower your chances of developing diabetes. For those who have diabetes, whole grains and fiber, as part of an overall healthful diet, can help manage carbohydrate intake and may aid in blood sugar control.

5. *Manage your weight.*

Fiber-rich whole grains help satisfy hunger, making it easier to manage calorie intake. People who eat nutritious whole grain foods in place of other higher calorie foods tend to weigh less.

6. *Whole grains are tasty, convenient and easy to find.*

A wide array of whole grain foods is available in today’s supermarkets. Foods that may be made with whole grain include breads, ready-to-eat and hot cereals, pasta, crackers, tortillas, pancakes, waffles, muffins and cookies. Some foods contain a mix of whole and enriched grains, offering the benefits of both types of grains along with an appealing taste and texture. Information available on the food package can help you know if grain-based foods are made with whole grain.

### ***Finding Whole Grain Foods***

It’s easy to find whole grain foods once you know what to look for:

- **Scan the ingredient list.**

Whole grain foods will list a grain, such as wheat, wheat flour, oats, corn, barley or rice, as the first ingredient. You’ll know it’s whole grain if the term “whole” or “whole grain” appears before the grain’s name in the ingredient list. Foods “made with whole grain” may list whole-grain ingredients further down in the ingredient list. A product name such as multigrain, stone-ground, 100% wheat, cracked wheat or 7 grain on the package label or in the ingredient list doesn’t always mean the product is whole grain. Be aware that color does not necessarily signal whole grain. For example, bread could be brown because molasses or caramel coloring has been added. Further, many whole grain products, like cereals, crackers or popcorn, are relatively light in color.

- **Look for a whole grain product name, statement or cue on the label. Various products may:**

- ◻ Use the term “100% whole grain” in the product name
- ◻ Include a statement, such as “made with 100% whole grain” or “made with whole grain” on the package
- ◻ State the amount of whole grain per label serving on the package
- ◻ Cite the presence of whole grain with a front-of-pack flag or a symbol indicating that foods are whole grain or made with whole grain

To put such information into perspective, nutrition experts recommend eating at least 3 one-ounce equivalents of whole grain products per day (that’s about 16 grams of whole grain per serving, or at least 48 grams of whole grain per day). Foods with smaller amounts of whole grains also count toward your daily goal of 48 grams of whole grain.

- **Look for a health claim.**

Some foods may carry a government-approved statement that points out the connection between whole grain foods and health. Whole grain foods that meet certain requirements can carry approved messages on the product’s label. Examples are:

- “Diets rich in whole grain foods and low in saturated fat and cholesterol may help reduce the risk of heart disease.”
- “Diets rich in whole grain foods and other plant foods, that are low in total fat, saturated fat and cholesterol, may reduce the risk of heart disease and certain cancers.”

### How to Make Half Your Grains “Whole”

MyPyramid ([www.MyPyramid.gov](http://www.MyPyramid.gov)) advises at least three servings, or ounce-equivalents, of whole grains per day.

| A serving of whole grain... | Is equal to*...   |
|-----------------------------|---|
| Cereal                      | 1 cup flakes or rounds, 1¼ cups puffed or ½ cup cooked                                |
| Bread                       | 1 slice of bread, 1 small roll or “mini” bagel, or ½ of a bun, pita or English muffin |
| Tortilla                    | 1 small (6-inch) flour or corn tortilla   |
| Pasta or brown rice         | ½ cup cooked  |
| Crackers                    | 5-7 crackers  |
| Pancakes or waffles         | 1 pancake or waffle (4½-inch diameter)  |
| Muffins                     | 1 small muffin (2½-inch diameter)   |

\*These serving-sizes also apply to refined grains.

### The Daily Grain

Choose a variety of grains daily, especially whole grains. Try some of these tasty ways to make whole grains a regular part of your day—at any meal or snack.

- Rise and dine on whole-grain cereal.
- Use whole-grain pasta, barley or bulgur in soups, stews, casseroles and salads.
- Make the switch to brown rice, or try a combination

of brown and white rice. Try stuffed bell peppers or tomatoes with brown rice, or serve your favorite stir-fry over brown rice. Quick-cooking brown rice is also available.

- When you make bread, muffins, biscuits, pancakes or waffles, substitute whole-wheat flour for half of the white flour.
- Take a whole grain to lunch— try a sandwich on whole grain bread or add new appeal with whole grain bagels, tortillas or pita bread. Introduce whole-grain bread gradually; start with a checker-board sandwich with one slice of whole grain bread and one slice of white bread.
- Snack on whole grains, such as popcorn, low-fat granola made with whole oats, whole-grain snacks or snack mixes made with whole grain cereal.
- Try polenta, corn bread or corn cakes made with whole cornmeal.
- Be adventurous and try a variety of whole grains, like whole grain barley, whole bulgur, kasha (buckwheat), wild rice, triticale, quinoa and wheat berries (whole wheat kernels). These grains are easy to prepare (Hint: Cooking times may be longer, so check package directions.) and can be used in place of pasta or rice in many recipes.

As you can see, there are plenty of reasons to choose whole-grain foods. Get the whole picture on whole grains and make them part of your healthy eating plan.