

What is fiber and does it help my heart?

Fiber is a type of carbohydrate that our bodies cannot digest—it passes through us without adding any calories to our diet. In a combined analysis of 10 studies including more than 330,000 people (73% were women), each 10-gram increase in daily fiber cut the risk of dying from heart disease by 27%.⁶² There was a hint that soluble fiber (found in oatmeal and barley) was more heart healthy than insoluble fiber. Soluble fiber, so-called because it is water soluble, has been shown to lower LDL (bad) [cholesterol](#) levels.⁶³

What is the difference between whole grains and refined grains?

Refined grains have been milled, a process that removes the bran and germ (where most of the nutrients are stored). Milling gives grains a finer texture and improves their shelf life, but it also removes dietary fiber, iron, and many B vitamins. Examples of refined grain products include white bread and white rice. Whole grain products (e.g., brown rice, oatmeal) contain much more cereal fiber than refined grain. Most refined grains are enriched—that is, the B vitamins (folic acid, thiamin, riboflavin, niacin) and iron are added back after processing; however, other lost nutrients (including vitamin E, magnesium, selenium) are not replaced.

What are the heart health benefits of whole grains?

The Iowa Women's Health Study included more than 11,000 postmenopausal women and found that those who ate more whole grain than refined fiber cut their risk of dying early by 17% compared with women who got most of their fiber from refined grains.⁶⁴

Eating more whole grains seems to cut the risk of developing [diabetes](#) by 20% to 30%.⁶⁵⁻⁶⁹ There is also some evidence that whole grains may help people with diabetes keep their blood sugar under control.

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People who eat a lot of whole grains tend to weigh less and gain less weight over the years

than people who don't, probably because fiber fills you up.^{18, 71, 72}

How much fiber and whole grains should I get?

You should aim for 6 or more daily servings of grains; half of these should be whole grains.³ According to the Dietary Guidelines for Americans, at least 3 daily servings of whole grains may lower your risk of

[diabetes](#)

, heart disease, and keep you at a healthy

[weight](#)

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The goal for fiber is about 25 grams per day or around 14 grams per 1,000 calories eaten. Fiber supplements are not recommended because there is no evidence that they provide the same heart health benefits as fiber from foods.

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The major sources of fiber are fruits, vegetables (especially legumes such as lentils, chickpeas, soybeans), and grains. Most grain eaten by Americans is highly refined. In 2003, the average American ate 10 servings of grain per day, but only one of these was whole grains. Nearly 40% of Americans do not eat any whole grains.

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For grains, a serving is 1 slice of bread, 1 ounce of dry cereal, or half a cup of cooked rice, pasta, or cereal.

What foods are whole grains?

Examples of Whole Grains

Whole Grains

Refined Grains

Brown rice

White rice

Buckwheat

White flour

Bulgar (cracked wheat)

Couscous

Whole rye

Corn meal/corn flour

Millet

Regular pasta

Oatmeal

Grits

Popcorn

Pretzels

Quinoa

White bread

Whole-wheat bread, pasta, crackers, or couscous (if 100% whole wheat)

Corn flakes

Wild rice

Foods labeled with the words “multi-grain,” “stone-ground,” “100% wheat,” “cracked wheat,” “seven-grain,” or “bran” are usually *not* whole-grain products. Color is not an indication of a whole grain. Bread can be brown because of molasses or other added ingredients. Read the ingredient list to see if it is a whole grain. Choose foods that name one of the following whole-grain ingredients *first* on the label's ingredient list:

- “brown rice”
- “bulgur”
- “graham flour”

“oatmeal”
“whole-grain corn”
“whole oats”
“whole rye”
“whole wheat”
“wild rice”

The FDA is revising the rules for the labeling of whole grain foods. Under the proposed changes, foods such as bagels, breads, and pizzas could only be labeled “whole grain” if they are made *entirely* from whole grain flours.

What is glycemic index and glycemic load?

Glycemic index (GI) measures how quickly a carbohydrate food will boost blood sugar compared with white bread or sugar. High GI foods produce a higher peak in blood sugar shortly after you eat them than low GI foods. ⁷⁵ *Glycemic load* is a food's GI multiplied by the number of grams of carbohydrates in a serving. Because it takes the serving size into account, glycemic load is more accurate than GI. Among more than 75,000 women in the Nurses' Health Study, the risk of heart disease was twice as high in women who consumed foods with the highest glycemic loads.

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Despite the popularity of GI diets, most health agencies do not recommend using GI or glycemic load. This is because there are no standard tests for measuring GI – figures vary widely depending on where the test was done, how the food was cooked, or where it was grown. In addition, the same food may produce a very different blood sugar response from one person to the next. Your blood sugar response will also be affected by other foods you eat before or with the carbohydrate food.

[Next: Salt & Potassium](#)

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