

Dietary fiber: An essential part of a healthy diet



Dietary fiber offers many health benefits. Here's how to include more in your diet.

Eat more fiber. You've probably heard it before. But do you know why fiber is so good for your health?

Dietary fiber — found mainly in fruits, vegetables, whole grains and legumes — is probably best known for its ability to prevent or relieve constipation. But fiber can provide other health benefits as well, such as lowering your risk of diabetes and heart disease.

If you need to add more fiber to your diet, don't worry. Increasing the amount you eat each day isn't difficult. Find out how much dietary fiber you need and ways to include more high-fiber foods into your daily meals and snacks.

What is dietary fiber?

Dietary fiber, also known as roughage or bulk, includes all parts of plant foods that your body can't digest or absorb. Unlike other food components such as fats, proteins or carbohydrates — which your body breaks down and absorbs — fiber isn't digested by your body. Therefore, it passes virtually unchanged through your stomach and small intestine and into your colon.

Fiber is often classified into two categories: those that don't dissolve in water (insoluble fiber) and those that do (soluble fiber).

- **Insoluble fiber.** This type of fiber promotes the movement of material through your digestive system and increases stool bulk, so it can be of benefit to those who struggle with constipation or irregular stools. Whole-wheat flour, wheat bran, nuts and many vegetables are good sources of insoluble fiber.
- **Soluble fiber.** This type of fiber dissolves in water to form a gel-like material. It can help lower blood cholesterol and glucose levels. You can find generous quantities of soluble fiber in oats, peas, beans, apples, citrus fruits, carrots, barley and psyllium.

The amount of each type of fiber varies in different plant foods. To receive the greatest health benefit, eat a wide variety of high-fiber foods.

Benefits of a high-fiber diet

A high-fiber diet has many benefits, which include:

- **Prevents constipation.** Dietary fiber increases the weight and size of your stool and softens it. A bulky stool is easier to pass, decreasing your chance of constipation. If you have loose, watery stools, fiber may also help to solidify the stool because it absorbs water and adds bulk to stool.
- **Lowers your risk of digestive conditions.** A high-fiber diet may lower your risk of specific disorders, such as hemorrhoids, irritable bowel syndrome and the development of small pouches in your colon (diverticular disease).
- **Lowers blood cholesterol levels.** Soluble fiber found in beans, oats, flaxseed and oat bran may help lower total blood cholesterol levels by lowering low-density lipoprotein, or "bad," cholesterol levels.
- **Controls blood sugar levels.** Fiber, particularly soluble fiber, can slow the absorption of sugar, which for people with diabetes, can help improve blood sugar levels. A high-fiber diet may also reduce the risk of developing type 2 diabetes.
- **Aids in weight loss.** High-fiber foods generally require more chewing time, which gives your body time to register when you're no longer hungry, so you're less likely to overeat. Also, a high-fiber diet tends to make a meal feel larger and linger longer, so you stay full for a greater amount of time. And high-fiber diets also tend to be less "energy dense," which means they have fewer calories for the same volume of food.

- **Uncertain effect on colorectal cancer.** Evidence that dietary fiber reduces colorectal cancer is mixed — some studies show benefit, some show nothing and even some show greater risk. If you're concerned about preventing colorectal cancer, adopt or stick with a colon cancer screening regimen. Regular testing for and removal of colon polyps can prevent colon cancer.

How much fiber do you need?

How much fiber do you need each day? The National Academy of Sciences' Institute of Medicine, which provides science-based advice on matters of medicine and health, gives the following daily recommendations for adults:

	Age 50 and younger	Age 51 and older
Men	38 grams	30 grams
Women	25 grams	21 grams

Your best fiber choices

If you aren't getting enough fiber each day, you may need to boost your intake. Good choices include:

- Grains and whole-grain products
- Fruits
- Vegetables
- Beans, peas and other legumes
- Nuts and seeds

Refined or processed foods — such as fruit juice, white bread and pasta, and non-whole-grain cereals — are lower in fiber content. The grain-refining process removes the outer coat (bran) from the grain, which lowers its fiber content. Similarly, removing the skin from fruits and vegetables decreases their fiber content.

So what foods are your best bets? This list shows the amount of dietary fiber in several types of foods.

Food item	Fiber content in grams*
Split peas, cooked, 1 cup	16.3
Red kidney beans, boiled, 1 cup	13.1
Raspberries, raw, 1 cup	8.0
Whole-wheat spaghetti, 1 cup	6.3
Oat bran muffin, medium	5.2
Pear, medium with skin	5.1
Broccoli, boiled, 1 cup	5.1
Apple, medium with skin	4.4
Oatmeal, quick, regular or instant, cooked, 1 cup	4.0
Green beans, cooked, 1 cup	4.0
Brown rice, cooked, 1 cup	3.5
Popcorn, air-popped, 2 cups	2.3
Whole-wheat bread, one slice	1.9

*Fiber content can vary between brands.

Source: USDA National Nutrient Database for Standard Reference, 2007



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Whole foods rather than fiber supplements are generally better. Fiber supplements — such as Metamucil, Citrucel and FiberCon — don't provide the vitamins, minerals and other beneficial nutrients that high-fiber foods do. However, some people may still need a fiber supplement if dietary changes aren't sufficient, or if they have certain medical conditions, such as irritable bowel syndrome. Check with your doctor if you feel you need to take fiber supplements.

Tips for fitting in fiber

Need ideas for high-fiber meals and snacks? Try these suggestions:

- Start your day with a high-fiber breakfast cereal — 5 or more grams of fiber per serving. Opt for cereals with "bran" or "fiber" in the name. Or add a few tablespoons of unprocessed wheat bran to your favorite cereal.
- Add crushed bran cereal or unprocessed wheat bran to baked products such as meatloaf, breads, muffins, casseroles, cakes and cookies. You can also use bran products as a crunchy topping for casseroles, salads or cooked vegetables.
- Switch to whole-grain breads. These breads list whole wheat, whole-wheat flour or another whole grain as the first ingredient on the label. Look for a brand with at least 2 grams of dietary fiber per serving.
- Substitute whole-grain flour for half or all of the white flour when baking bread. Whole-grain flour is heavier than white flour. In yeast breads, use a bit more yeast or let the dough rise longer. When using baking powder, increase it by 1 teaspoon for every 3 cups of whole-grain flour.
- Eat more whole grains and whole-grain products. Experiment with brown rice, barley, whole-wheat pasta and bulgur.
- Take advantage of ready-to-use vegetables. Mix chopped frozen broccoli into prepared spaghetti sauce. Snack on baby carrots.
- Eat more beans, peas and lentils. Add kidney beans to canned soup or a green salad. Or make nachos with refried black beans, baked tortilla chips and salsa.
- Eat fruit at every meal. Apples, bananas, oranges, pears and berries are good sources of fiber.
- Make snacks count. Fresh and dried fruit, raw vegetables, and low-fat popcorn and whole-grain crackers are all good choices.

Warning: High-fiber foods are good for your health. But adding too much fiber too quickly can cause intestinal gas, abdominal bloating and cramping. Increase fiber in your diet gradually over a period of a few weeks. This allows the natural bacteria in your digestive system to adjust to the change. Also, drink plenty of water. Fiber works best when it absorbs water, making your stool soft and bulky. Without the added water, you could become constipated.