

Why is fiber so important in your diet?

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

Dietary fibers are the structural parts of plants and thus are found in all plant-derived foods—vegetables, fruits, whole grains, and legumes.

There is no dietary fiber in animal products (meat, chicken, fish or dairy). Fibers are parts of plant that do not break down in our stomachs, and instead pass through our system undigested. All dietary fibers are either soluble or insoluble. Both types of fiber are equally important for health, to maintain a healthy weight, digestion, and preventing conditions such as heart disease, diabetes, obesity, diverticulitis, and constipation.

Types of Fiber: Soluble Fiber and Insoluble Fiber

Both soluble and insoluble fiber are undigested. They are therefore not absorbed into the bloodstream. Fiber content is often listed under "Total Carbohydrates" on a Nutrition Facts label. Because it is undigested, it provides 0 calories. Instead of being used for energy, fiber is excreted from our bodies. Soluble fiber dissolves in water. Insoluble fiber does not. To some degree these differences determine how each fiber functions in the body and benefits your health.

Soluble fibers attract water and form a gel, which slows down digestion. Soluble fiber delays the emptying of your stomach and makes you feel full, which helps control weight. Slower stomach emptying may also affect blood sugar levels and have a beneficial effect on insulin sensitivity, which may help control diabetes. Soluble fibers can also help lower LDL ("bad") blood cholesterol by interfering with the absorption of dietary cholesterol.

- Sources of soluble fiber: oatmeal, oat cereal, lentils, apples, oranges, pears, oat bran, strawberries, nuts, flaxseeds, beans, dried peas, blueberries, psyllium, cucumbers, celery, and carrots.

Insoluble fibers are considered gut-healthy fiber because they have a laxative effect and add bulk to the diet, helping prevent constipation. These fibers do not dissolve in water, so they pass through

the gastrointestinal tract relatively intact, and speed up the passage of food and waste through your gut. Insoluble fibers are mainly found in whole grains and vegetables.

- Sources of insoluble fiber: whole wheat, whole grains, wheat bran, corn bran, seeds, nuts, barley, couscous, brown rice, bulgur, zucchini, celery, broccoli, cabbage, onions, tomatoes, carrots, cucumbers, green beans, dark leafy vegetables, raisins, grapes, fruit, and root vegetable skins.

It is important to have both insoluble and soluble fiber. Most plant foods contain a mixture of both fibers, and the two types are not usually differentiated on food labels. Be sure to eat plenty of fiber whether it is soluble or insoluble. It's ALL GOOD!

Benefits of a high-fiber diet

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

- **Normalizes bowel movements.** 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.
- **Helps maintain bowel health.** A high-fiber diet may lower your risk of developing hemorrhoids and small pouches in your colon (diverticular disease). Some fiber is fermented in the colon. Research is showing that fiber may play a role in preventing diseases of the colon.
- **Lowers 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. Studies also have shown that fiber may have other heart-health benefits, such as reducing blood pressure and inflammation.
- **Helps control blood sugar levels.** In people with diabetes, fiber — particularly soluble fiber — can slow the absorption of sugar and help improve blood sugar levels. A healthy diet that includes insoluble fiber may also reduce the risk of developing type 2 diabetes.
- **Aids in achieving healthy weight.** 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.

Recommended Fiber Intake

Most health authorities recommended fiber intake in the range of 25-35 grams per day as a minimal goal, and optimally, your goal should be about 40 grams. The average American eats 10-15 grams a day. People following whole food, plant-based diet, like the diet I use in my nutrition program eat 40 to 60 (sometimes 100) grams a day. Increase your fiber intake slowly (if you're not getting enough fiber), and increase water intake as well.

Here is the fiber content of some common foods:

- Beans: about 7 grams per 1/2 cup serving
- Vegetables: about 4 grams per 1-cup serving
- Fruits: about 3 grams per average fruit

References:

1. Park Y, et al. Dietary fiber intake and risk of colorectal cancer. *JAMA*. 2005;294:2849.
2. Dietary Reference Intakes for energy, carbohydrate, fiber, fat, fatty acids, cholesterol, protein, and amino acids (macronutrients). Institute of Medicine. <http://www.nap.edu/openbook.php?isbn=0309085373>. Accessed Aug. 22, 2012.
3. Marshall JR. Nutrition and colon cancer prevention. *Current Opinion in Clinical Nutrition & Metabolic Care*. 2009;12:539.
4. Duyff RL. *American Dietetic Association Complete Food and Nutrition Guide*. 4th ed. Hoboken, N.J.: John Wiley & Sons; 2012:55.
5. Slavin JL. Position of the American Dietetic Association: Health implications of dietary fiber. *Journal of the American Dietetic Association*. 2008;108:1716.
6. Nelson JK (expert opinion). Mayo Clinic, Rochester, Minn. Aug. 22, 2012.
7. Schatzkin A, et al. Dietary fiber and whole-grain consumption in relation to colorectal cancer in the NIH-AARP Diet and Health Study. *American of the Journal Clinical Nutrition*. 2007;85:1353.
8. Dietary Guidelines for Americans, 2010. U.S. Department of Health and Human Services. <http://www.cnpp.usda.gov/DGAs2010-PolicyDocument.htm>. Accessed Aug. 22, 2012.

Wald A. Management of chronic constipation in adults. <http://www.uptodate.com/index>. Accessed Aug. 21, 2012.