

Fabulous Fiber!

Many Americans may know that fiber is important for good health; however, most fall short of consuming the recommended amounts. Due to low consumption, the Dietary Guidelines for Americans set forth by the USDA has identified fiber as a nutrient of concern and promotes increased intake of fiber by all Americans.¹ For adults 50 years of age and younger, the Institute of Medicine's recommended intake for total fiber is 14 grams/1000 calories, which equals about 38 grams/day for men and 25 grams/day for women.²

What is Fiber?

Fiber is a part of edible plant foods that the body cannot digest. It is mainly found in fruits, vegetables, whole grains, legumes (beans and peas), nuts and seeds. While fiber is not digested by our bodies, it helps aid in the maintenance of a healthy digestive system. Fiber is often listed on food and beverage labels as either soluble or insoluble:

Soluble fiber dissolves in water and may lower blood cholesterol levels, when regularly eaten as part of a diet low in saturated fat, trans fat and cholesterol.³ Good sources of soluble fiber include whole grain oats and barley, beans, peas, and fruits.

Insoluble fiber does not dissolve in water and passes through the digestive system mostly intact. Insoluble fiber is often associated with normal laxation.⁴ Significant sources of insoluble fiber include whole wheat breads and cereals, most other whole grains, and vegetables.

Recently the distinction between soluble and insoluble fiber has become less important, and major health organizations recommend getting an adequate amount of total fiber from a variety of different food sources.^{4,5}

Benefits of High Fiber Diet

A diet high in total fiber can have significant health benefits. Foods containing fiber are often good sources of other essential nutrients and low in fat, saturated fat and cholesterol.

Several studies have reported an inverse association between total fiber intake and the risk of coronary heart disease. One such study, by Bazzano et.al, examined the relationship between total and soluble fiber consumption and the risk of CVD and CHD in nearly 10,000 adults who participated in the National Healthy and Nutrition Examination Survey I Epidemiologic Follow-up Study. The study found that a higher intake of dietary fiber, specifically soluble fiber, was associated with reduced risk of CHD.⁶ High fiber diets have also been reported to be associated with lower blood pressure, reduced inflammatory markers and improve serum lipid levels.^{7,8,9}

Another benefit of a high fiber diet relates to bowel function. Many sources of dietary fiber increase stool weight and thus help promote normal laxation.^{2,5} A high fiber diet may also have some benefit in terms of weight control.¹⁰ A high fiber diet is often lower in calories since fiber-rich foods provide satiety and can help you feel full longer.

So aim for a diet high in fiber. Snacking on whole fruits and vegetables, eating whole grain breads and adding beans to salads or soups are great ways to increase fiber consumption. Be sure to look at the nutrition facts panel on all food labels to check fiber content and include a variety of foods and beverages containing a good source (10% of the Daily Value) of fiber as part of your healthy diet.

¹ The Report of the Dietary Guidelines Advisory Committee on Dietary Guidelines for Americans, 2005. Washington DC: 2004. <http://www.health.gov/dietaryguidelines/dga2005/report/>.

² Institute of Medicine. Dietary Reference Intakes for Energy, Carbohydrates, Fiber, Fat, Fatty Acids, Cholesterol, Protein and Amino Acids. National Academies Press: Washington DC. 2005.

³ American Heart Association. Cholesterol, Fiber and Oat Bran. <http://www.americanheart.org/presenter.jhtml?identifier=4494>. (Accessed: March 21, 2009).

⁴ Slavin, JL. Position of the American Dietetic Association: Health Implications of Dietary Fiber. J Am Diet Assoc. 2008;108(10):1716-1731.

⁵ American Heart Association. Fiber. <http://www.americanheart.org/presenter.jhtml?identifier=4574>. (Accessed: March 21, 2009).

⁶ Bazzano LA, He J, Ogden LG, Loria CM and Whelton PK. Dietary fiber intake and reduced risk of coronary heart disease in US men and women: The National Health and Nutrition Examination Survey I Epidemiologic Follow-up Study. Arch Intern Med. 2003. 163:1897-1904.

⁷ Streppel MT, Arends LR, van't Veer P, Grobbee DE and Geleijnse JM. Dietary fiber and blood pressure: A meta-analysis of randomized placebo-controlled trials. Arch Intern Med. 2005. 165:150-156.

⁸ Ma Y, Griffith JA, Chasan-Taber L, Olendzki BC, Jackson E, Stanek EJ, Li W, Pagoto SL, Hafner AR and Ockene IS. Association between dietary fiber and serum C-reactive protein. Am J Clin Nutr. 2006. 83:760-766.

⁹ Brown L, Rosner B, Willett WW and Sacks FM. Cholesterol-lowering effects of dietary fiber: A meta-analysis. Am J Clin Nutr. 1999. 69:30-42.

¹⁰ Howarth NC, Saltzman, E and Roberts SB. Dietary fiber and weight regulation. Nutr. Rev. 2001. 59:129-139.