



Dietary Fiber

Written by: Sue Snider, Ph.D. Professor/Food Safety and Nutrition Specialist

Reviewed by: Diane Oliver, MPH, RDN, LDN

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Dietary fiber is the part of plants that humans cannot digest.

- Although fiber was once thought to be a very simple constituent of food, it is now divided into two types – soluble and insoluble.
- Plants differ in the types and amounts of fiber they contain.
- Insoluble fiber has a laxative effect, producing softer, bulkier stools and more rapid movement of wastes through the intestine. Fiber is helpful in preventing and treating constipation and diverticular disease.
- Diets high in dietary fiber may reduce the risk of for colon cancer, heart disease, diabetes, and obesity. For example, when adults with high blood cholesterol levels consumed two servings of oatmeal or oat bran each day, a significant drop in the cholesterol content of blood occurred.
- The average American consumes about 11 to 13 grams of fiber each day. Health groups have suggested an intake of 25 grams of fiber each day for women and 38 grams of fiber each day for men younger than 50. Recommendations for individuals over 51 include an intake of 21 grams for women and 30 grams for men. Most Americans are not getting enough fiber and a moderate increase in

dietary fiber by eating more fiber-containing foods is desirable.

- There is no reason to take fiber supplements or to add fiber to foods that do not already contain it.
- The best way to determine the amount of fiber is to read the Nutrition Facts label. There may be products that appear to have a great deal of fiber that don't necessarily deliver a significant amount.

Be cautious when adding fiber to your diet. First, gradually increase the fiber content of your diet because you may experience intestinal gas, abdominal bloating, and cramping if you increase it too fast. Second, increase the amount of water you consume. Because some of the fiber components absorb large quantities of water, inadequate intake of liquids can cause problems and discomfort. Lastly, increase the fiber content of your diet by eating a variety of foods rather than using fiber supplements. Often these supplements are made up of only insoluble fiber and may contain only a small amount of actual fiber.

Good Sources of Fiber

- Whole-grain breads
- Whole-wheat pasta
- Vegetables, especially
- Edible skins, stems, seeds
- Whole-grain cereals
- Dry beans and peas
- Whole fruits, especially
- Nuts and seeds

What Are Whole Grains?

Whole grains are products that contain the entire grain, or all the grain that is edible. They include the **bran** and **germ** portions, which contain most of the fiber, vitamins, and minerals, as well as the starchy **endosperm**. Most of the fiber is contained in the bran and is mainly cellulose, which is a type of insoluble fiber.

Some examples are whole wheat, cracked wheat, bulgur, oatmeal, whole cornmeal, and whole rye.

Whole grain does not have to mean bread or cereal. Try these:

- Brown rice
- Corn tortillas
- Popcorn, unbuttered
- Scotch barley – in soups
- Tabbouleh – a bulgur wheat salad
- Whole-wheat pasta

You do not have to switch to whole-wheat bread to increase your intake of whole grain. Many products on the market are made of a mixture of whole-grain flours and enriched flour. Try those listed below for variety in taste and texture, as well as a bonus of fiber and nutrients. Or, try substituting whole-grain flour for half the amount of white flour when you bake quick breads or cookies.

- Bran muffins
- Cornbread, from whole, ground cornmeal
- Cracked wheat bread
- Oatmeal bread
- Pumpernickel bread
- Rye bread

What foods are rich in soluble fibers?

Soluble fibers tend to absorb a great deal of water. Two examples of soluble fibers are pectins and gums.

Pectin is found in abundance in fruits. In fact, pectin is what causes jelly and jam to set. Commercial pectin for making jams and jellies comes from either apple or citrus peels, the two richest sources of pectin.

Sources of gums include oatmeal, rolled-oat products, legumes (dried beans and peas) and some commercial foods such as salad dressings and ice cream.

Ingredients that you might see on a food label that are gums include agar, algin, carrageenan, arabic, arabinogalactan (larch), tragacanth, guar, locust bean and xanthan.

Tips for increasing fiber include:

- Use fresh fruits and vegetables for snacks and desserts.
- Eat the peel on fruits and vegetables.
- Eat fruits or vegetables raw or lightly cooked.
- Use fruits or vegetables whole or cut into chunks for salads, desserts or casseroles instead of as sauce or juice.
- Try whole-grain rice, noodles and bread products for a change.
- Substitute whole-grain flour to 1/4 to 1/2 of the regular all-purpose flour in recipes.
- Experiment with dried beans and peas such as pinto beans, lentils and black beans. They are some of the highest sources of fiber available.
- Add dried beans and peas to soups, casseroles or even sandwich spreads.
- Mix mashed legumes with ground beef in spicy casseroles or meat loaves.
- Add oatmeal to drop cookies, muffins or meat loaves.
- Sprinkle bran on cereal, vegetables, desserts or ice cream.

Prepared by: Sue Snider, PhD

Professor/Food Safety and Nutrition Specialist

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