



THE CENTER FOR CHOLESTEROL MANAGEMENT  
A Medical Corporation

Food fibers are that part of plant foods that are not digested when eaten. Some types of fiber may have a cholesterol-lowering effect which could lead to reduced risk of heart disease. Fiber may also help reduce the incidence of certain types of cancer, especially those associated with the digestive tract, and may be helpful in controlling diabetes. There are two types of fiber, soluble and insoluble.

**Insoluble fibers:** This type of fiber is not soluble in water. Foods that contain insoluble fibers include: wheat bran, whole grain products and vegetables. Insoluble fibers help to regulate bowel movements.

**Soluble fibers:** These fibers become gummy in water. When eaten, soluble fiber sources slow the passage of food through the digestive system and some researchers believe this action helps to regulate cholesterol and glucose (sugar) levels in the blood by affecting absorption rates. Food sources of soluble fibers are dried beans, oats, barley and some fruits and vegetables.

<b>Food Sources of Various Fiber Components</b>	
<b>Insoluble</b>	<b>Soluble</b>
<b>Cellulose</b> Whole-wheat flour Bran Cabbage family Dried peas/beans Apples Root vegetables	<b>Pectin</b> Apples Citrus fruits Strawberries
<b>Hemicellulose</b> Bran Cereals Whole grains	<b>Gums</b> Oatmeal Dried beans Other legumes
<b>Lignin</b> Mature vegetables Wheat	

The American Diabetes

Association's daily recommendations for dietary fiber is 20-35 grams for adults.

There are many sources of high fiber foods. Some examples include:

**Whole grains:** wheat, oats, rice, barley and corn. When shopping, look for food items listed "whole grains" or "whole wheat." Look for breads with a minimum of two grams of fiber (>3 grams is better) per serving and cereals with at least four grams of fiber per serving. Cereals such as Fiber One and Kashi (GO lean) have greater than 10 grams of fiber per serving.

**Fruits and Vegetables:** At least five servings per day.

**Legumes:** Aside from their fiber content, legumes are an excellent source of fiber, vitamins and minerals and protein. Examples of legumes are: lentils, split peas, red and white kidney beans, black beans, navy beans, black-eyed peas, chick peas or garbanzo beans.

**Nuts and seeds:** While a good source of fiber, they are high in calories and fats and should be eaten sparingly. *Note: They are listed in the "fat" category in your Food Group handout.*

Here are some more tips and strategies for increasing fiber

1. Start slowly, add a little each day and build up to the recommended level. Simultaneously, add more water to your diet.
2. Eat vegetables and fruit raw whenever possible. Steam or stir-fry them if you have to cook.
3. Pureeing doesn't destroy fiber, but juice does not have the fiber of the whole fruit if the pulp has been strained away.
4. Always start your day with a bowl of high-fiber cereal -- one that has five or more grams per serving.
5. Put fresh fruit on top of your high-fiber cereal to add another 1 g or 2 g of fiber.
6. Buy and eat only whole grains. The operative word is "whole." Look for it on the ingredient panel. Wheat bread doesn't mean *whole*-wheat bread. On average, a slice of whole-wheat bread has 2 g to 3 g of fiber. Choose brown rice instead of white and whole-wheat pasta/noodles instead of white flour, etc.
7. Add beans to salads, soups and stews.
8. Add bran cereal to muffins, breads and casseroles. Substitute oat bran for one-third of the all-purpose flour in baking.
9. When you eat out, ask for fresh fruit instead of dessert.
10. Have fruit or fresh vegetables for between-meal snack.