Fiber — the Fabric of Heart Health

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What is Fiber?

Fiber is what gives plants their structure, crunch and many health benefits. There are 2 types:

**Soluble fiber** forms a gel in water. This group includes gums, mucilages, psyllium and pectins. Soluble fibers are found in foods like peas, beans, oats, barley, apples, oranges, squash and carrots. These fibers slow the absorption of blood sugars in the gut and also bind with dietary cholesterol for excretion. They are also useful as laxatives.

**Insoluble fiber** does not dissolve in the body. This group contains cellulose, hemicellulose and lignin. These are found in foods like wheat bran, whole grains and vegetables. Insoluble fibers add bulk causing the muscles of the intestinal tract to work harder and become stronger. Transit time improves and harmful substances are removed more quickly from the body making insoluble fiber part of a cancer preventive regime. It also helps to eliminate straining and abrasion of the digestive tract.

Fiber’s role in heart health

- **Lowering Cholesterol** Soluble fiber binds to dietary cholesterol and eliminates it from the body therefore lowering cholesterol levels. Fiber prevalent in oats and barley may play the greatest role in this health benefit. Foods high in fiber are cholesterol free and high in protective nutrients like antioxidants and phytosterols. Nuts and seeds not only help lower cholesterol, but they contain mono-unsaturated fats that can improve your lipid profile.

- **Weight Management** High fiber foods like fruits and vegetables are lower in calories and high in taste and nutrients. Dietary fiber promotes feelings of fullness in the stomach and initiates the stretch reflex signaling the brain to stop eating. And foods high in fiber require longer to chew and therefore may reduce overeating.

- **Blood Pressure** High fiber diets have been associated with improved blood pressure.

- **Diabetes** Diabetics have an increased risk of heart disease. A high fiber diet may slow the absorption of glucose from the intestine, thereby requiring less insulin secretion, preventing or delaying the onset of diabetes.

- **Risk Reduction** Research study participants whose diets were high in fiber reduced their risk of heart disease by 10% - 15%.
How much fiber? The American Heart Association recommends a minimum of 25-30 gm of total fiber per day from foods, not supplements. 5-10 gm should be soluble fiber.

How to add fiber to the diet

- **Start slowly.** Your stomach and intestines need time to adjust to the change. Increasing fiber too quickly can cause gas, cramps, diarrhea and bloating.

- **Choose whole fruits** instead of juice. Eat the skins of apples, plums and peaches. Try fruits with seeds like kiwi and strawberries, or fibrous fruits like mango. Add dried figs, dates, raisins or cranberries to recipes, salads and desserts. You can also find dried and frozen blackberries and blueberries that are rich in antioxidants and nutrients.

- **All vegetables** add insoluble fiber. Broccoli, raw carrots and cabbages add soluble as well. Eat the skins of potatoes, carrots, cucumbers and tomatoes.

- **Beans** are possibly the best source of both fibers. Extend casseroles by adding cooked legumes or barley. Mash and mix into meat loaf or use as spreads for tacos/burritos. Throw in soups and stews. Make hummus with roasted garlic for a mayo replacement with zest.

- **Whole grains** from wheat provide insoluble fiber, while oats provide both soluble and insoluble fibers. Use brown or wild rice for mostly insoluble fiber. Sprinkle whole grain cereal, dry oats and/or wheat germ in soups, salads, cereals and yogurt. Popcorn, a grain, is a high fiber, low calorie snack.

- **Nuts** not only provide fiber but protein, healthy mono-unsaturated fats, vitamins and minerals. Choose walnuts and almonds over pistachio and macadamia for greatest health benefits.

- **Drink plenty of water.** Fiber absorbs large amounts of water and too little water intake can actually lead to constipation.

   Most foods contain a mixture of both types of fibers. Adding a variety of fiber-rich foods will provide the benefits of both soluble and insoluble fiber for optimal health.

References:

The Academy of Nutrition and Dietetics/National Center for Nutrition and Dietetics. www.eatright.org
American Heart Association. www.americanheart.org