Improving Your Health With Fiber

Fiber is the part of plant foods (fruits, vegetables, grains) that our bodies cannot digest or break down. Fiber can help lower cholesterol, better regulate blood sugar levels, and may prevent intestinal cancer. Aim for 14 grams of fiber per 1,000 calories.

What are some guidelines to increasing dietary fiber?

This guide provides basic information to help you increase fiber in your diet. Fiber is an important dietary substance to your health. Most fiber-containing foods are also good sources of vitamins, minerals, and antioxidants, which offer many health benefits. A registered dietitian can provide in-depth nutrition education to help you develop a personal action plan.

What is fiber?

Fiber is the structural part of plant foods--such as fruits, vegetables, and grains--that our bodies cannot digest or break down. There are two kinds of fiber: soluble and insoluble.

- **Soluble fiber**: dissolves in water to form a gummy gel. It can slow down the passage of food from the stomach to the intestine. Examples include dried beans, oats, barley, bananas, potatoes, and soft parts of apples and pears.
- **Insoluble fiber**: often referred to as "roughage" because it does not dissolve in water. It holds onto water, which helps produce softer, bulkier stools to help regulate bowel movements. Examples include whole bran, whole grain products, nuts, corn, carrots, grapes, berries, and peels of apples and pears.

What other things does fiber do?

Research has shown that a diet rich in fiber is associated with many health benefits, including the following:

1. **Lowers cholesterol:** Soluble fiber has been shown to lower cholesterol by binding to bile (composed of cholesterol) and taking it out of the body. This may help reduce the risk of heart disease.
2. **Better regulates blood sugar levels:** A high-fiber meal slows down the digestion of food into the intestines, which may help to keep blood sugars from rising rapidly.
3. **Weight control:** A high-fiber diet may help keep you fuller longer, which prevents overeating

4. **May prevent intestinal cancer:** Insoluble fiber increases the bulk and speed of food moving through the intestinal tract, which reduces time for harmful substances to build up.
5. **Constipation:** Constipation can often be relieved by increasing the fiber or roughage in your diet. Fiber works to help regulate bowel movements by pulling water into the colon to produce softer, bulkier stools. This action helps to promote better regularity.

How much fiber should I eat?

The Academy of Nutrition and Dietetics recommends consuming about 25-35 grams of total fiber per day, with 10-15 grams from soluble fiber or 14g of fiber per 1,000 calories. This can be accomplished by choosing 6 ounces of grains (3 or more ounces from whole grains), 2½ cups of vegetables, and 2 cups of fruit per day (based on a 2,000 calorie/day pattern). However, as we age, fiber requirements decrease. For those over the age of 70, the recommendation for women is 21 grams and for men 30 grams of total fiber per day.

Note: Eating a high-fiber diet may interfere with the absorption and effectiveness of some medications. Speak to your doctor about which medications to take with caution and when to take them. Fiber also binds with certain nutrients and carries them out of the body. To avoid this, aim for the recommended 20-35 grams of fiber per day. When eating a high-fiber diet, be sure to drink at least eight glasses of fluid each day.

Tips for increasing dietary fiber in your diet:

- Add fiber to your diet slowly. Too much fiber all at once may cause cramping, bloating, and constipation.
- When adding fiber to your diet, be sure to drink adequate fluids (at least 64 ounces or 8 cups per day) to prevent constipation.
- Choose products that have a **whole grain** listed as the first ingredient, not enriched flour. Whole wheat flour is a whole grain--wheat flour is not.
- Choose whole grain bread with 2-4 grams of dietary fiber per slice.
- Choose cereals with at least 5 grams of dietary fiber per serving.
- Choose raw fruits and vegetables in place of juice, and eat the skins.
- Try alternative fiber choices such as whole buckwheat, whole wheat couscous, quinoa, bulgur, wheat germ, chia seeds, hemp seeds, lentil pasta, and edamame pasta.
- Popcorn is a whole grain. Serve it low-fat without butter for a healthier snack choice.
- Sprinkle bran in soups, cereals, baked products, spaghetti sauce, ground meat, and casseroles. Bran also mixes well with orange juice.
- Use dried peas, beans, and legumes in main dishes, salads, or side dishes such as rice or pasta.
- Add dried fruit to yogurt, cereal, rice, and muffins.
- Try brown rice and whole grain pastas.

Fiber supplements

Fiber supplements may be an option if you are not able to get enough fiber from your diet. Fiber supplements can be used to normalize both constipation and diarrhea. Check with your doctor before starting any kind of supplement. Read labels for fiber carefully.

- Drink at least 8 ounces of liquids with your supplement. Taking some fiber supplements without adequate liquids may cause the fiber to swell and may cause choking and constipation.

- Some fiber supplements to consider are Benefiber® (wheat dextrin), Metamucil® (psyllium), Konsyl® (psyllium), Citrucel® (methylcellulose), Fiberco® (SmartFiber derived from cellulose), and FiberChoice® (inulin). Psyllium husk and guar gum are soluble fibers.
- Consider keeping a food journal and tracking how much fiber you eat in a typical day.
- Use the fiber content chart in this handout as a guide to meeting your high fiber goal or check with www.NAL.usda.gov/fnic for additional information on the dietary fiber content of food.

Fiber Content of Common Foods

Breads

- **Bagel-whole wheat**
  - **Serving Size:** 3 1/2 inches
  - **Total Fiber (grams):** 3
  - **Soluble Fiber (grams):** 1
- **Light white/wheat**
  - **Serving Size:** 2 slices
  - **Total Fiber (grams):** 1
  - **Soluble Fiber (grams):** trace
- **Pita-whole wheat**
  - **Serving Size:** 7 inches
  - **Total Fiber (grams):** 4
  - **Soluble Fiber (grams):** 1
- **Pumpernickel**
  - **Serving Size:** 1 slice
  - **Total Fiber (grams):** 3
  - **Soluble Fiber (grams):** 1
- **Whole wheat**
  - **Serving Size:** 1 slice
  - **Total Fiber (grams):** 2
  - **Soluble Fiber (grams):** trace
- **Rye**
  - **Serving Size:** 1 slice
  - **Total Fiber (grams):** 2
  - **Soluble Fiber (grams):** 1
- **Double fiber**
  - **Serving size**: 1 slice
  - **Total Fiber (grams):** 5
  - **Soluble Fiber (grams):** 2

Cereals

- **Bran flakes**
  - **Serving Size:** 3/4 cup
  - **Total Fiber (grams):** 5
  - **Soluble Fiber (grams):** trace
- **Cheerios™**
  - **Serving Size:** 1 1/4 cup
  - **Total Fiber (grams):** 4
  - **Soluble Fiber (grams):** 1
- **Oatmeal**
  - **Serving Size:** 1 cup cooked
  - **Total Fiber (grams):** 4

- **Fiber One™**
  - **Serving Size:** 1/2 cup
  - **Total Fiber (grams):** 14
  - **Soluble Fiber (grams):** 1
- **All Bran®**
  - **Serving Size:** 2/3 cup
  - **Total Fiber (grams):** 13
  - **Soluble Fiber (grams):** 1
- **Kashi® Heart to Heart®**
  - **Serving Size:** 3/4 cup
  - **Total Fiber (grams):** 5
  - **Soluble Fiber (grams):** 1

Grains

- **Barley**
  - **Serving Size:** 1/2 cup cooked
  - **Total Fiber (grams):** 4
  - **Soluble Fiber (grams):** 1
- **Brown rice**
  - **Serving Size:** 1/2 cup
  - **Total Fiber (grams):** 2
  - **Soluble Fiber (grams):** trace
- **Pasta-whole wheat**
  - **Serving Size:** 1/2 cup cooked
  - **Total Fiber (grams):** 3
  - **Soluble Fiber (grams):** 1
- **Quinoa**
  - **Serving Size:** 1/2 cup cooked
  - **Total Fiber (grams):** 2
  - **Soluble Fiber (grams):** 1
- **Lentil pasta**
  - **Serving Size:** 1/2 cup cooked
  - **Total Fiber (grams):** 6
  - **Soluble Fiber (grams):** 2
- **Edamame pasta**
  - **Serving Size:** 1/2 cup cooked
  - **Total Fiber (grams):** **6**
  - **Soluble Fiber (grams):** 3

Legumes and starchy vegetables

- **Garbanzo beans**
  - **Serving Size:** 1/2 cups
  - **Total Fiber (grams):** 4
  - **Soluble Fiber (grams):** 1
- **Kidney beans**
  - **Serving Size:** 1/2 cup
  - **Total Fiber (grams):** 6
  - **Soluble Fiber (grams):** 3
- **Lentils**
  - **Serving Size:** 1/2 cup
  - **Total Fiber (grams):** 5
  - **Soluble Fiber (grams):** 1

    - **Serving Size:** 1 medium
    - **Total Fiber (grams):** 3
    - **Soluble Fiber (grams):** 1
- **Potatoes, sweet**
    - **Serving Size:** 1/2 cup cooked
    - **Total Fiber (grams):** 4
    - **Soluble Fiber (grams):** 2
- **Squash (winter)**
    - **Serving Size:** 1/2 cup
    - **Total Fiber (grams):** 3
    - **Soluble Fiber (grams):** 2
- **Green peas, cooked**
    - **Serving Size:** 1/2 cup
    - **Total Fiber (grams):** 4
    - **Soluble Fiber (grams):** 1
- **Lima beans**
    - **Serving Size:** 1/2 cup
    - **Total Fiber (grams):** 7
    - **Soluble Fiber (grams):** 3
- **Corn, cooked**
    - **Serving Size:** 1/2 cup
    - **Total Fiber (grams):** 2
    - **Soluble Fiber (grams):** trace

Nuts and Seeds

- **Almonds**
    - **Serving Size:** 1/4 cup
    - **Total Fiber (grams):** 3
    - **Soluble Fiber (grams):** 1
- **Peanuts**
    - **Serving Size:** 1/4 cup
    - **Total Fiber (grams):** 3
    - **Soluble Fiber (grams):** 1
- **Sunflower seeds**
    - **Serving Size:** 1/4 cup
    - **Total Fiber (grams):** 3
    - **Soluble Fiber (grams):** 1
- **Walnuts**
    - **Serving Size:** 1/4 cup
    - **Total Fiber (grams):** 2
    - **Soluble Fiber (grams):** trace
- **Flaxseed (ground)**
    - **Serving Size:** 1/8 cup or 2 tbsp
    - **Total Fiber (grams):** 4
    - **Soluble Fiber (grams):** 2
- **Chia seeds**
    - **Serving Size:** 1/8 cup or 2 tbsp
    - **Total Fiber (grams):** 10
    - **Soluble Fiber (grams):** 7
- **Hemp seeds**
    - **Serving Size:** 1/8 cup or 2 tbsp
    - **Total Fiber (grams):** 2
    - **Soluble Fiber (grams):** 1

Fruits

- **Apple with skin**
  - **Serving Size:** 1 medium
  - **Total Fiber (grams):** 3
  - **Soluble Fiber (grams):** 1
- **Banana**
  - **Serving Size:** 1 medium
  - **Total Fiber (grams):** 2
  - **Soluble Fiber (grams):** 1
- **Blueberries**
  - **Serving Size:** 1 cup
  - **Total Fiber (grams):** 2
  - **Soluble Fiber (grams):** trace
- **Grapefruit**
  - **Serving Size:** 1/2 cup
  - **Total Fiber (grams):** 1
  - **Soluble Fiber (grams):** 1
- **Orange**
  - **Serving Size:** 1 medium
  - **Total Fiber (grams):** 3
  - **Soluble Fiber (grams):** 2
- **Pear with skin**
  - **Serving Size:** 1 medium
  - **Total Fiber (grams):** 4
  - **Soluble Fiber (grams):** 2
- **Prunes**
  - **Serving Size:** 3
  - **Total Fiber (grams):** 2
  - **Soluble Fiber (grams):** 1
- **Strawberries**
  - **Serving Size:** 1 cup
  - **Total Fiber (grams):** 4
  - **Soluble Fiber (grams):** 1

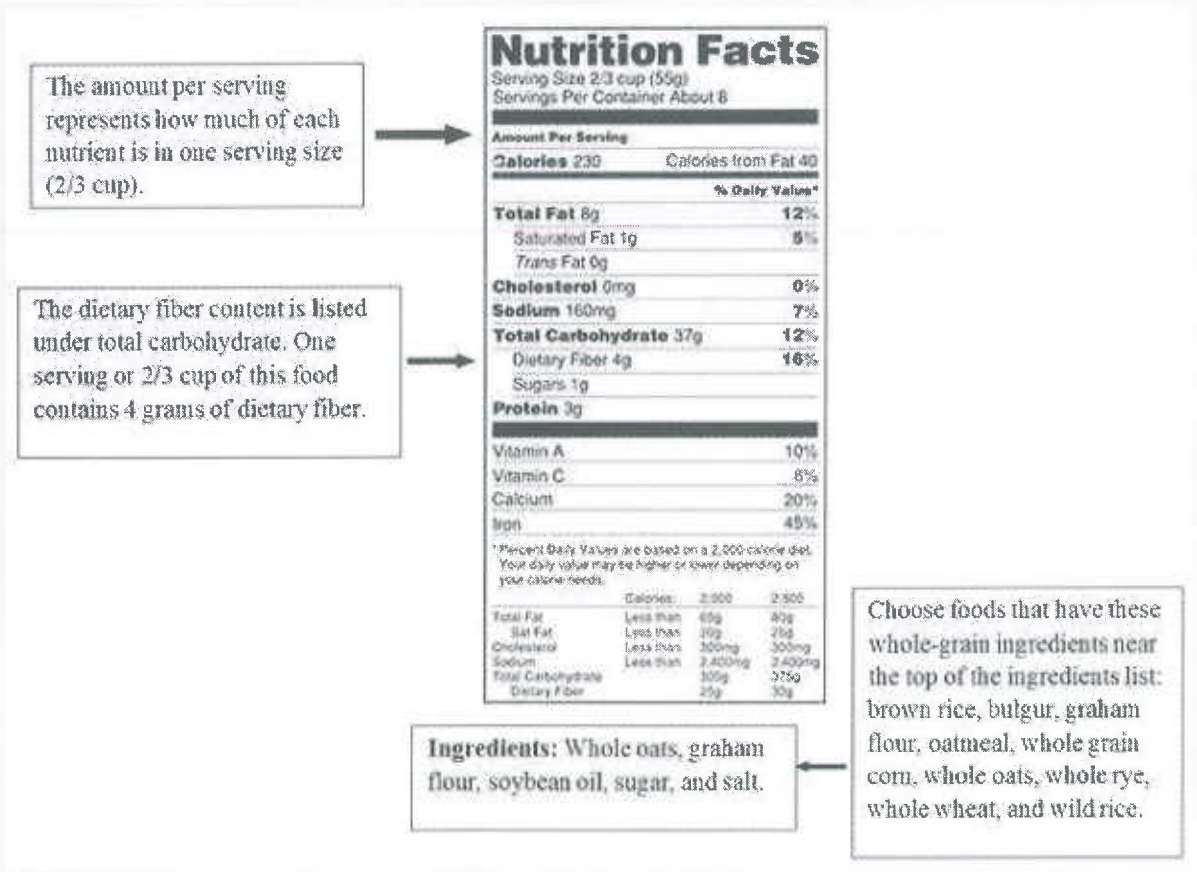
Vegetables, non-starchy

- **Broccoli**
  - **Serving Size:** 1/2 cup
  - **Total Fiber (grams):** 3
  - **Soluble Fiber (grams):** 1
- **Brussels sprouts**
  - **Serving Size:** 1/2 cup
  - **Total Fiber (grams):** 4
  - **Soluble Fiber (grams):** 2
- **Cabbage (green)**
  - **Serving Size:** 1 cup, fresh
  - **Total Fiber (grams):** 2
  - **Soluble Fiber (grams):** 1
- **Carrots**
  - **Serving Size:** 1/2 cup, cooked
  - **Total Fiber (grams):** 2
  - **Soluble Fiber (grams):** 1
- **Cauliflower**

  - **Total Fiber (grams):** 1
  - **Soluble Fiber (grams):** trace
- **Green beans**
  - **Serving Size:** 1/2 cup
  - **Total Fiber (grams):** 2
  - **Soluble Fiber (grams):** 1
- **Kale**
  - **Serving Size:** 1/2 cup
  - **Total Fiber (grams):** 3
  - **Soluble Fiber (grams):** 1
- **Spinach**
  - **Serving Size:** 1/2 cup
  - **Total Fiber (grams):** 2
  - **Soluble Fiber (grams):** 1
- **Squash (zucchini)**
  - **Serving Size:** 1/2 cup
  - **Total Fiber (grams):** 1
  - **Soluble Fiber (grams):** 1

How to read a food label

Food labels are standardized by the U.S. government's National Labeling and Education Act (NLEA). Nutrition labels and an ingredient list are required on most foods, so that you can make the best selection for a healthy lifestyle. Review the food label below. Determine the total amount of fiber in this product or ask your registered dietitian or healthcare provider to show you how to read food labels and apply the information to your personal needs. In order for a product to be labeled "high fiber," it must contain 5 grams or more of dietary fiber per serving.



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References:

- US Department of Agriculture. 2015-2020 Dietary Guidelines for Americans Accessed 4/12/2019.