

# Dietary Fiber

Fiber is a type of complex carbohydrate found only in plant-based food such as fruits, vegetables, whole grains, beans, nuts and seeds. It cannot be digested by the body's digestive enzymes, but it may be digested by the microorganisms that inhabit the intestines. Fiber provides numerous health benefits such as preventing constipation and reducing the risk of heart disease and diabetes through glucose and cholesterol regulation.

There are two different types of fiber, **soluble** and **insoluble**, named for their ability to dissolve in water. Both types are indigestible, but each reacts differently when combined with liquid. Most plant foods contain both forms of fiber, and each type contributes unique health benefits. For example, the inner portion of an apple contains soluble fiber, and the peel contains insoluble fiber.

## Soluble Fiber

- **Functions:** dissolves in water, forming a gel-like material; binds with fatty acids and slows digestion by prolonging the time it takes to empty the stomach and increasing feelings of fullness
- **Benefits:** lowers LDL cholesterol, regulates blood sugar levels, reduces risk of heart disease, supports weight control
- **Food Sources:** oats, dried beans and peas, barley, citrus fruits, carrots, oat bran, flaxseed, psyllium

## Insoluble Fiber

- **Functions:** does not dissolve in water; considered "gut healthy" because it speeds up the time it takes for food and waste to move through the intestine
- **Benefits:** promotes regular bowel movements, prevents constipation, may reduce risk of colon cancer through faster waste removal
- **Food Sources:** vegetables (especially dark green leafy), fruit and vegetable skins, beans, nuts and seeds, intact whole grains, popcorn

## How Much Fiber Do I Need?

### Daily Recommended Intake of Dietary Fiber

Females, age 18-50	25 grams per day
Females, age 51 and above	21 grams per day
Males, age 18-50	38 grams per day
Males, age 51 and above	30 grams per day



High fiber foods are good for your health, but too much too soon can result in intestinal gas, bloating and cramping. To help prevent GI distress:

- Gradually increase your fiber intake over a few weeks, giving your body time to adjust.
- Drink **PLENTY** of water with these foods. Fiber works best with water, making your stool soft and bulky. Without adequate water, fiber can actually worsen or cause constipation.

## Food Sources of Fiber

Food	Serving Size	Fiber (g)
Beans, cooked (navy, pinto, kidney, white, great northern, lima)	½ cup	6.2-9.6
Bran ready-to-eat cereal, 100%	1 ounce (⅓ cup)	9.1
Split peas, lentils or chickpeas, cooked	½ cup	5.6-8.1
Artichoke hearts, cooked	½ cup	7.2
Pear	1 medium	5.5
Soybeans, mature, cooked	½ cup	5.2
Whole-wheat English muffin	1 muffin	4.4
Bulgur, cooked	½ cup	4.1
Mixed vegetables, cooked	½ cup	4.0
Raspberries	½ cup	4.0
Sweet potato, baked in skin	1 medium	3.8
Blackberries	½ cup	3.8
Soybeans, green, cooked	½ cup	3.8
Prunes, stewed	½ cup	3.8
Shredded wheat cereal	1 ounce (½ cup)	2.7-3.8
Figs, dried	1/4 cup	3.7
Apple, with skin	1 small	3.6
Pumpkin, canned	½ cup	3.6
Greens (spinach, collards, turnip), cooked	½ cup	2.5-3.5
Almonds	1 ounce	3.5
Sauerkraut, canned	½ cup	3.4
Whole wheat spaghetti, cooked	½ cup	3.1
Banana	1 medium	3.1
Orange	1 medium	3.1
Potato, baked with skin	1 small	3.0
Pearled barley, cooked	½ cup	3.0
Dates	¼ cup	2.9
Winter squash, cooked	½ cup	2.9
Parsnips, cooked	½ cup	2.8
Broccoli, cooked	½ cup	2.7
Okra, coked from frozen	½ cup	2.6
Source: Dietary Guidelines for Americans, 2010 via USDA, Agricultural Research Service, Nutrient Database Laboratory		