

Sizing Up Soluble Fiber



What is Fiber?

Fiber is made up of complex carbohydrates found only in plants such as fruits, vegetables, whole grains, beans, nuts, and seeds. Our bodies cannot digest or absorb fiber because fiber is resistant to the body's digestive enzymes. However, even though fiber contributes minimal calories and few nutrients, it does provide numerous health benefits such as preventing constipation and reducing your risk of heart disease and diabetes through glucose and cholesterol regulation.

There are two different types of fiber, **soluble** and **insoluble**. 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.

Soluble Fiber

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

Insoluble Fiber

- **Functions:** does not dissolve in water. It's considered "gut healthy" because it speeds up the time it takes for food and waste to move through the body.
- **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 root vegetable edible skins, beans, nuts and seeds, whole wheat products, popcorn

Cholesterol & Soluble Fiber

Soluble fiber has been proven to reduce blood cholesterol levels which may help reduce the risk of heart disease. Research has shown that following a heart-healthy meal plan (such as Therapeutic Lifestyle Changes) that limits saturated fats, trans fats, and cholesterol and promotes increased amounts of soluble fiber can greatly improve cholesterol levels. These findings report that an additional 5-10 grams of soluble fiber per day can lead to a 3-5% reduction in LDL ("bad") cholesterol.*

So how does soluble fiber do it? Since soluble fiber does not dissolve in water, the gel-like material it forms binds to cholesterol in the intestinal tract and helps eliminate it from the body. Think of soluble fiber like a sponge, "soaking up" cholesterol and preventing it from being absorbed. By doing this, soluble fiber helps to reduce the amount of cholesterol in the blood, which, in turn, reduces cholesterol deposits on artery walls and plaque build-up that can lead to heart disease.



How Much Fiber Do I Need?

Type of Fiber	Daily Intake Recommendation
Total Fiber	20-35 grams * This equates to about 6-8 grams per meal and 3-4 grams per snack.
Soluble Fiber	≥ 5-10 grams with 10-25 grams, preferred *

High fiber foods are good for your health but too much too soon can result in intestinal gas, bloating, and cramping. Gradually increase your fiber intake over a few weeks, giving your body time to adjust. Also, drink **PLENTY** of water with these foods. Fiber works best with water, making your stool soft and bulky. Without added water, constipation can occur.

*Dept of Health & Human Services: Your Guide to Lowering Your Cholesterol with TLC, 2005

Where Do I Find Soluble Fiber?

Soluble fiber is rarely listed on the Nutrition Facts label so you will need to read the ingredients list, searching for soluble fiber terms such as:

- Oats
- Rolled oats
- Oat bran
- Oat flour
- Oatrium
- Whole grain barley
- Dry milled barley
- Barley bran
- Barley flakes
- Barley grits
- Pearl barley
- Barley flour
- Barley meal
- Sieved barley meal
- Barley betafiber
- Psyllium husk or seed (Metamucil®)
- Wheat bran or fiber
- Flax or flaxseeds
- Beta glucans

Below is a list of foods and their soluble fiber content that can help you when shopping for soluble fiber.



Fruit	Serving Size	Soluble Fiber (g)
Blackberries	1/2 cup	3.1
Figs	3 small	2.3
Grapefruit	1 medium	2.0
Orange	1 medium	1.8
Apple, with skin	1 medium	1.0
Peach	1 medium	1.0



Vegetables (cooked)	Serving Size	Soluble Fiber (g)
Okra	1/2 cup	3.1
Brussels sprouts	1/2 cup	2.0
Sweet potato	1/2 cup	1.8
Asparagus	1/2 cup	1.7
Turnip	1/2 cup	1.7
Peas, green	1/2 cup	1.3
Carrots	1/2 cup	1.1



Grains	Serving Size	Soluble Fiber (g)
Kashi GoLean Crisp	3/4 cup	5.0
Oat bran, cooked	3/4 cup	2.2
Steel cut oats, dry	1/2 cup	2.0
Quinoa, cooked	1/2 cup	1.7
Flaxseed	1 tbsp	1.1
All Bran	1/3 cup	1.4
Pumpernickel bread	1 slice	1.2
Instant oatmeal	1 packet	1.0
Cheerios	1 cup	1.0
Wheat bran	1/2 cup	1.0
Barley, pearled	1/2 cup	0.8
Spaghetti, whole wheat, cooked	1/2 cup	0.6
Whole-wheat bread	1 slice	0.5

Beans (cooked)	Serving Size	Soluble Fiber (g)
Black beans	1/2 cup	2.4
Navy beans	1/2 cup	2.2
Kidney beans	1/2 cup	2.0
Pinto beans	1/2 cup	1.4
Chick peas	1/2 cup	1.3
Lentils	1/2 cup	1.0



Soluble Fiber Counter

Do you wonder how you'll ever consume at least 5-10 grams of soluble fiber a day?

Do you think that consuming 10-25 grams of soluble fiber a day sounds impossible?

Here's a few tips and suggestions for how soluble fiber intake can easily add up in a day:

- **Roll with the Oats:** Look for words containing oats, barley, psyllium, and flax on the ingredients list of food products. These terms tell you that the product has soluble fiber and will help you reach your daily goals!
- **Screen for Beans:** Replace your typical side dishes with high-fiber dried beans and peas such as kidney, black, pinto, and navy beans. 1/2 cup of cooked black beans has 2.4 grams of soluble fiber, that adds up quickly!
- **Vary Your Veggies (& Fruits!):** Eat lots of fruits and vegetables daily! They pack a nutritional punch, loaded with fiber and tons of other great vitamins and minerals. Try incorporating a fruit and/or vegetable into each meal and snack.

