



FIBER 101



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# FIBER 101

We all know the benefits of fiber!

Choosing high fiber carbohydrates have become confusing. What's the difference between all of the fiber types? Which type should you be having and are processed grains still high in fiber?

Fiber is essential but it promotes gut health and also helps reduce the risk of developing many chronic diseases. For instance, fiber prevents constipation, hemorrhoids and diverticulosis.

A high-fiber diet is also linked to lower risk of developing some cancers, especially colon and breast cancer. In addition, it helps lower LDL cholesterol and total cholesterol. Furthermore, high-fiber foods generally have a lower glycemic index value, an important element in managing Type 2 diabetes.

Tip: Slowly increase fiber into your diet. Adding too much fiber too quickly can be linked to constipation. It's important to give your digestive system time to get used to the additional roughage.

## **Types of Fiber: Soluble Fiber and Insoluble Fiber**

Both soluble and insoluble fiber are undigested. They are therefore not absorbed into the bloodstream. Fiber content is often listed under "Total Carbohydrates" on a Nutrition Facts label. Because it is undigested, it provides 0 calories.

Instead of being used for energy, fiber is excreted from our bodies. Soluble fiber forms a gel when mixed with liquid, while insoluble fiber passes through our intestines largely intact.

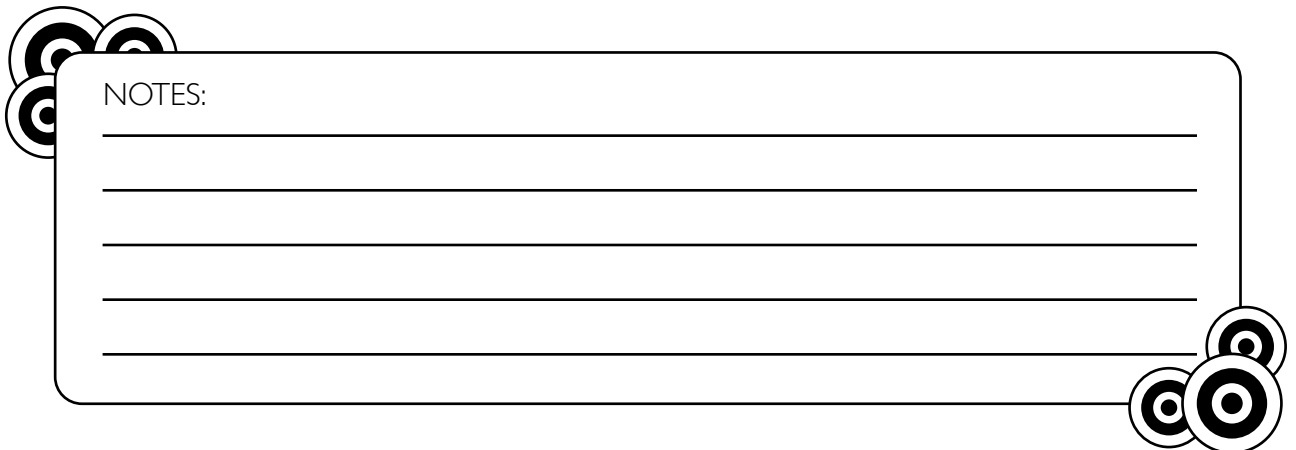
## **Insoluble Fiber**

### **Functions of Insoluble Fiber**

- move bulk through the intestines
- control and balance the pH (acidity) in the intestines

### **Benefits of Insoluble Fiber**

- promote regular bowel movement and prevent constipation
- remove toxic waste through colon in less time
- help prevent colon cancer by keeping an optimal pH in intestines to prevent microbes from producing cancerous substances



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## Top Insoluble Fiber Foods

- Wheat bran, 11.3 grams of insoluble fiber per 1/2 cup
- All Bran cereal, 7.2 g per 1/3 cup
- Most beans (1/2 cup)
  - o Kidney beans, 5.9 g
  - o Pinto beans, 5.7 g
  - o Navy beans, 4.3 g
- Lentils, 4.6 g per 1/2 cup
- Most Whole grains. Bulgur, for instance, contains 4.2 grams of insoluble fiber in 1/2 cup
- Flax seeds, 2.2 g per 1 tbsp
- Chia seeds 4.5g per 1 tbsp
- Vegetables (1/2 cup)
  - o Okra, 3.1 g
  - o Turnip, 3.1 g
  - o Peas, 3 g

## Soluble Fiber

### Functions of Soluble Fiber

- bind with fatty acids
- prolong stomach emptying time so that sugar is released and absorbed more slowly

### Benefits of Soluble Fiber

- lower total cholesterol and LDL cholesterol (the Bad cholesterol) therefore reducing the risk of heart disease
- regulate blood sugar for people with diabetes



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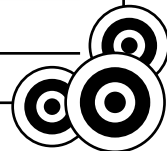
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## Top Soluble Fiber Foods

- Purple passion fruit, 6.5 g of soluble fiber per 1/2 cup
- Psyllium husk, 3.5 g per 1 tbsp
- Oat/Oat bran, 2.2 g per 3/4 cup
- Some Beans (1/2 cup)
  - o Black beans, 2.4 g
  - o Navy beans, 2.2 g
  - o Kidney beans, 2 g
- Soy
  - o Tofu, 2.8 g per 3/4 cup
  - o Edamame, 1.5 g per 1/2 cup
- Vegetables (1/2 cup)
  - o Avocado, 2.1 g
  - o Brussels sprouts, 2 g
  - o Sweet potato, 1.8 g
  - o Asparagus, 1.7 g
  - o Turnip, 1.7 g
- Fruit
  - o Dried figs, 1.9 g per 1/4 cup
  - o Orange, 1.8 g, medium size
  - o Fruit with skin, like pear, apricots, and nectarine, ~ 1.2 g
- Flax seed, 1.1 g per 1 tbsp

## The Bottom Line

An average diet contains 75:25 insoluble fiber: soluble fiber ratio. When making a food choice decision, don't worry about choosing a specific type of fiber. Many foods such as oat, oat brans, psyllium husk and flax seed are rich in both insoluble and soluble fiber.

The goal is to get at least 25 – 35 grams of fiber per day through fruits, vegetables, whole grains (gluten free if applicable) and legumes.