

# Fiber 101:

## Soluble Fiber vs Insoluble Fiber

Written by Gloria Tsang, RD  
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### Benefits of Fiber

We all know the **benefits of fiber**! Fiber not only promotes health, it also help reduce the risk for some chronic diseases. For instance, fiber prevents **constipation**, hemorrhoids and diverticulosis. Fiber is also linked to prevent some cancers especially colon and **breast cancer**. In addition, fiber may help lower the LDL cholesterol (the **Bad cholesterol**) and the total cholesterol therefore reducing the **risk of heart disease**. Furthermore, fiber can help lower blood sugar therefore help better manage diabetes.

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

Both soluble and insoluble fiber are undigested. They are therefore not absorbed into the bloodstream. Instead of being used for energy, fiber is excreted from our bodies. Soluble fiber forms a gel when mixed with liquid, while insoluble fiber does not. 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

#### Food Sources of Insoluble Fiber

- Vegetables such as green beans and dark green leafy vegetables
- Fruit skins and root vegetable skins
- Whole-wheat products
- Wheat oat

- Corn bran
- Seeds & Nuts

## **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

## **Food Sources of Soluble Fiber**

- **Oat/Oat bran**
- Dried beans and peas
- **Nuts**
- **Barley**
- **Flax seed**
- Fruits such as oranges and apples
- Vegetables such as carrots
- **Psyllium husk**

 **Key Message:** An average diet contains 75%:25% insoluble fiber: soluble fiber. 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. Eating enough fiber is more important! The recommended intake of fiber is 25g per day. If you eat at least 5 servings of **fruits & vegetables** as well as at least 6 servings of grain products per day (at least 3 of which are **whole grains**), you are very likely meeting the fiber requirements.