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Dietary Fiber

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What is Dietary Fiber?

Dietary fiber is best identified as the source that helps keep food moving through our gastric system effectively. It is a broad term that describes the part of plant foods that our bodies cannot digest. There are two categories of dietary fiber: *soluble* and *insoluble*. Most foods contain mixtures of both soluble and insoluble fibers.

For good health, it is important to have both types of fiber in our diets. A diet rich in high-fiber foods tends to be lower in fat and higher in vitamins and minerals than a low-fiber diet.

Differences between Soluble Fiber and Insoluble Fiber

Soluble fiber refers to the type of fiber that dissolves in water and is mostly responsible for the health claims of lowering blood lipid (fat) levels. Soluble fiber is found in foods like oat bran and barley bran. Fiber from over-the counter laxatives usually contain soluble fiber also in the form of psyllium.

Insoluble fiber, which does not dissolve in water, is found in foods like wheat bran, whole grains, and all fruits and vegetables. It is often referred to as roughage or bulk because it keeps the digestive system functioning normally. Insoluble fiber helps with constipation, hemorrhoids, and other digestive problems.

Dietary Fiber and Health Benefits

High-fiber diets have also been shown to help prevent certain diseases, including colon and rectal cancer. It helps form a bulkier, heavier stool. Slow movement of food through the digestive tract allows more time for potentially harmful substances to come in contact with the intestinal walls. Bulkier stools move waste faster, thus helping to dilute the concentration of these substances.

A diet high in fiber can reduce the incidence of heart disease by helping to lower the "bad" LDL cholesterol. A fiber-rich diet can ward off high blood sugar levels because fiber slows the absorption of sugar and allows the body to tolerate increases in sugar much better, helping to stave off diabetes. The proper amount of dietary fiber helps to prevent constipation and hemorrhoids. Another probable benefit of a fiber-rich diet that includes fruits, vegetables, legumes, whole grains, and low-fat foods is that it may help us maintain a healthy weight. Fiber makes us feel full longer and fiber-rich foods are often lower in calories and lower in fat.

Dietary Fiber and Health Benefits

The recommended daily allowance of dietary fiber for adults aged 19-50 is 25 grams for women and 38 grams for men each day. After age 50, daily fiber needs decrease to 21 grams for women and 30 grams for men. To meet this fiber goal, eating the recommended amount of fruits, vegetables, legumes (beans), and whole grains from MyPlate is an excellent guide.

According to the American Academy of Pediatrics in their Guide to Your Child's Nutrition, a child's daily intake of fiber should equal his or her age plus 5 grams. Thus, an 8-year old would need 8+5=13 grams of fiber per day, up to a maximum of 35 grams a day.

To increase fiber in one's diet, it needs to be added very gradually, or it may cause gas, bloating, or even diarrhea. It is also important to note, that drinking plenty of liquids when consuming a high-fiber diet is necessary to move fiber along the digestive tract and to avoid constipation.

Interestingly enough, it is possible to get too much fiber—for adults and children. Eating 50 or more grams of fiber each day for adults may decrease the amount of minerals the body absorbs, especially zinc, iron, magnesium, and calcium. Too much fiber can also increase the speed at which food moves through the digestive tract, allowing too little time for some vitamins and minerals to be absorbed. This usually is not a problem for those in the United States though, since most Americans do not consume enough daily fiber.

How much Fiber is enough?

Here are some tips for increasing your fiber intake:

- Eat a variety of high-fiber foods—let MyPlate be your guide.
- Have legumes such as dried beans or peas two to three times per week.
- Choose whole grain breads, cereals, pasta, crackers, and flour.
- Snack on fruits, vegetables, and high-fiber cereals and grains.

- Consume fresh fruits rather than fruit juices.
- Scrub vegetables and fruit and leave the skin on instead of peeling the skin off.
- Substitute high fiber ingredients in recipes, such as adding vegetables to casseroles, fruit to cereal, and oatmeal and beans to meatloaf, breads, and baked goods.

Food Label Terminology

Nutrition labels list a Daily Reference Value (DRV) for nutrients, including fiber. The DRV for fiber is 25 grams per day based on a 2,000 calorie diet and 30 grams per day based on a 2,500 calorie diet.

It is also important to be aware that just because bread or a baked good is brown in color does not signify it contains a whole grain. Look for words on the ingredient label that indicate whole grain such as: wheat berries, oats, oatmeal, brown rice, and stoneground whole grain, to name a few. By law, any bread labeled whole wheat must be made of 100% whole wheat flour. Wheat bread however, may contain some white refined flour as well as wheat flour depending on the product. With a little label reading, we can come to know exactly what we are eating.

Other helpful food label terminology is listed below:

Food Label Terminology	
On the Label	**What it means**
High Fiber	*5 grams or more per serving*
Good Source	*2.5-4.9 grams per serving*
More or Added Fiber	*At least 2.5 grams or more per serving than the reference food*

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