

## Lesson 10 *The Biggest Loser*

# Fiber Facts!

**What Is Fiber?** Fiber is the part of the plant that is not digested by enzymes in your stomach and intestines during metabolism. Fiber is ONLY found in foods that come from plants such as fruits, vegetables, nuts and grains. There is NO fiber in any foods from animal sources, including milk and eggs.

**Why is Fiber Important?** Getting an adequate amount of fiber in your daily diet is as important as making sure you get enough protein, carbohydrates, vitamins and minerals. The benefits of adequate fiber include keeping blood sugar at appropriate levels, reducing cholesterol and lowering risk of heart disease, and it may play an important role in reducing some types of cancer. Fiber also keeps the digestive system working well, reduces constipation and can reduce the risk of diverticular disease.

For some people, a high-fiber diet may help them lose weight. Fiber has no calories, but because of its water-absorbing ability, high fiber foods give you a feeling of being full. Foods high in fiber also take more time to eat due to the amount of chewing necessary to prepare the food for digestion. This usually cuts down the overall quantity of food that a person eats at a meal.

**Types of Fiber:** The two types of fiber found in plant foods are *insoluble* or *soluble*. **Insoluble fiber** is found in the **cell walls** of foods. Whole grain products contain the most insoluble fiber, but many fruits and vegetables also have significant amounts. Insoluble fiber binds water, making fecal matter softer and bulkier. This helps speed the passage of food through the digestive tract. Because insoluble fiber increases the rate at which waste is removed from the body, there is less time for exposure to toxic substances, which some research points to as a cause of colon cancer.

**Soluble fiber** is found **inside** the plant cells of dried beans, legumes, barley, oat bran, fruits and vegetables. Soluble fiber binds bile acids which helps eliminate cholesterol from the body. Some types of soluble fiber have a greater effect on lowering cholesterol than others. Pectin found in fruits and oat fibers seem to be most effective for removing cholesterol. Because high cholesterol levels are associated with an increased risk for heart disease, including soluble fiber in the diet is critical.

**How Much fiber?** Most American diets provide about 14 grams of fiber each day. The Recommended Dietary Amounts (RDA) per day varies depending on age and gender. The recommended number of grams is:

Age	Female	Male
9-13 years	26 grams/day	31 grams/day
14-18 years	26 grams/day	38 grams/day
19-50 years	25 grams/day	38 grams/day
51+ years	21 grams/day	30 grams/day

**Adding Fiber in Your Diet:** If a person is not used to eating high fiber foods, it may take a while for the body to adjust. You should increase the amount of fiber slowly to prevent digestive problems. Because some high fiber foods such as dried beans contain starchy carbohydrates, you may initially experience gas and diarrhea as the digestive system gets used to the extra fiber.

If you do not already drink adequate water, you will need to increase it as you increase fiber in your diet. Drink a minimum of 8 cups of water each day. As with any change in diet or physical activity, it is recommended that a doctor be consulted before making major changes.

**What Affects Fiber Levels in Foods:** Different plants have different amounts of fiber. During the preparation or processing of foods, the removal of seeds, peels or hulls reduces fiber content. Whole tomatoes have more fiber than peeled tomatoes; a peeled tomato has more fiber than tomato juice.

Bread made with whole-wheat flour has more fiber than bread made from white flour. Most foods will have the same amount of fiber regardless of whether it is fresh, canned or frozen. However, drying and crushing foods destroys the water-holding qualities of fiber.

**Fiber on Food Labels:** Fiber is listed on the Nutrition Facts Panel on food products. The fiber content of a food is listed directly below Carbohydrates. It is given in grams and as a percentage of the daily value for diets of 2,000 or 2,500 calories. **Choose foods that name one of the following wholegrain ingredients first on the label's ingredient list: brown rice, bulgur, graham flour, oatmeal, whole-grain corn, whole oats, whole rye, whole wheat, or wild rice.** Foods labeled with the words "multi-grain," "stone-ground," "100% wheat," "cracked wheat," "seven-grain," or "bran" are usually *not* whole-grain products.

**Fiber Health Claims:** Health claims can be made for foods that meet specific requirements for fiber. Claims that imply a product contains a particular amount of fiber can be made only if the food actually meets the definition for "high fiber" or "good source of fiber," whichever is appropriate. **High Fiber** food must have 5 grams or more fiber per serving. A food that is a **Good Source of Fiber** must have at least 2.5 grams of fiber per serving.

For a food to make a health claim about ***fiber and the prevention of heart disease***, the food must contain at least 0.6 gram of soluble fiber per serving and must meet the definitions for a food that is low fat, low in saturated fat, and low in cholesterol. The soluble fiber content must be listed and the fiber cannot have been added or fortified in the food.

### **Increasing Fiber:**

- ♥ Choose a quick and easy ready-to-eat or ready-to-cook whole grain cereal for breakfast.
- ♥ Substitute whole wheat for part or all of white flour in baked goods.
- ♥ Use brown rice, whole grain barley or bulgur in soups, salads or side dishes.
- ♥ Use whole wheat pasta rather than regular pasta.
- ♥ Eat skins and edible seeds of raw fruits and vegetables.
- ♥ Select high fiber snacks such as fresh fruits and vegetables, whole grain crackers, or popcorn.
- ♥ Use whole grain cereals, nuts or seeds for crunchy toppings.
- ♥ Look for whole wheat flour or whole grains as the first ingredient on bread and cereal labels.

### **References:**

Dietary Fiber, Colorado State University Extension Fact Sheet 9.333, [www.ext.colostate.edu/pubs](http://www.ext.colostate.edu/pubs)  
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