

Choosing Whole Grains

Objective:

At the end of this lesson, the student will be able to explain the health benefits of including fiber in the diet and to identify foods that are rich in whole grains.

Materials:

Nutrition Facts Labels:

- whole wheat bread (100% whole wheat on the label)
- refined bread product
- bran cereal (more than 4 grams fiber)
- breakfast cereal (less than 4 grams fiber)
- brown rice
- white rice

Lesson:

The new Dietary Guidelines and MyPyramid recommend that you make half of your grains whole. This means that you should strive to eat at least 3 oz of whole-grain cereals, breads, crackers, rice, or pasta every day.

Whole grain products provide more nutrients and fiber than their refined versions. There are two categories of fiber with unique health benefits: soluble and insoluble.

Soluble refers to the ability of fiber to dissolve in water. Soluble fiber absorbs water, swells, and slows the passage of digestive matter. This type of fiber helps you to feel fuller after a meal and may help with weight management by curbing your appetite.

Soluble fiber (found in oats, oat bran, brown rice, other grains, fruits, vegetables and dried beans and peas legumes) can help lower cholesterol levels. The health benefit of lower cholesterol levels is that it reduces the risk of heart disease.

Insoluble fiber cannot dissolve as well in water. This type of fiber increases and softens stools and increases the passage of digestive matter. Insoluble

fiber (found in wheat bran, corn bran, whole wheat breads and cereals, fruits, and vegetables) promotes regularity. The health benefit of regular bowel movements is that it decreases risk for colon cancer.

Trying to get more soluble and insoluble fiber in your diet may seem like too much to think about. Don't sweat it; many foods contain both types of fiber. If you eat a variety of fiber-rich foods, you will get the health benefits from both types of fiber.

When you decide that you want to increase the fiber in your diet, remember to do so gradually. Your gastrointestinal (GI) tract will need time to adjust. Begin with 20 grams of fiber each day for a week or so, and then add 5 grams per day each week thereafter until you reach the fiber recommendations that are appropriate for you. Go to MyPyramid.gov to figure an amount that is right for you. It is also important to drink plenty of fluids as you add fiber to your diet. You will need this extra fluid for the fiber to dissolve in your GI tract. The extra fluid will keep you from becoming dehydrated and keep things moving along.

Use the nutrition facts labels listed above to illustrate the following points about increasing fiber in the diet by choosing whole grains:

- Read the nutrition label on grain products. Foods that are good sources of fiber will have at least 2.5 grams per serving. Foods that are high in fiber will have 5 grams per serving.
- To choose whole grain breads, look for whole wheat or whole grains as the first ingredient on the ingredient list. A product that states 100% whole wheat (or 100% whole grain) will be a good choice as well. If you see enriched flour on the list of ingredients, then the bread is not a whole grain product.
- To choose cereals that are rich in fiber, look for those that provide 4 grams of fiber per serving or more.
- Choose brown rice over enriched white rice and try grains that are new to you like barley, bulgur wheat, couscous. These are fiber-rich whole grains.

Evaluation:

Immediately after the lesson the students will discuss the incidence of heart disease and colon cancer in their families and the significance of the lesson in reducing their risks of these diseases.

Students will demonstrate the retention of their knowledge of whole grains by finding recipes that include whole grains. One week after this lesson, each student will hand in one recipe that they have printed from the computer, photocopied, or neatly written from internet sources, cookbooks, or family recipes. Recipes that provide nutrition facts are highly encouraged, as are recipes that have been tested with favorable results. The instructor will evaluate the recipes and assign the compilation of the appropriate recipes into a packet so that each student will have a "Whole Grains Recipe Booklet" for their family.

References:

Bauer J. (2003). *The Complete Idiot's Guide to Total Nutrition, 3rd edition.* Alpha Books: Indianapolis, IN.

Whitney E and Rolfes S. (2005). *Understanding Nutrition, 10th edition.* Thomson/ Wadsworth: Belmont, CA.

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