



Whole Grains Foods for Every Meal of the Day Leader Guide

Introduction

Discover the awesome variety of whole grain foods you can eat for every meal of the day. Learn basic facts about a “Kernel of Wheat,” 10 Tips for Making Half Your Grains Whole, how to cook whole grain foods, how to become a “Food Hero” by using and sharing these recipes with whole grains! We want everyone to see how easy it can be to add whole grains to daily choices.

Objectives:

- Know the three parts of a whole grain
- Identify and use whole grains in everyday cooking
- Make at least half of grains you consume whole grains
- Try at least one new whole grain food in place of grain you typically use

Before the Lesson:

- Prepare sample bottles or bags of the 12 whole grains discussed in this lesson
 - Note: Pre-made whole grain sample kits may be ordered from the Moore Family Center Outreach office at 503-657-7385 through 12/31/2015.
- Make copies of Participant Handout, Consent Form and Evaluation Form for all attending
- Copy Almond Rice Pudding at the end of the Leader Guide
- Prepare enough short-grain brown rice and another whole grain to make Almond Rice Pudding with two kinds of whole grains for all participants to sample

Leader: In this guide suggestions for teaching will be in bold italics.

What is a Whole Grain?

A grain is simply the seed of a plant. Grains consist of three parts: the bran, the endosperm, and the germ. Products labeled “whole grain” contain all three parts of the grain kernel in their original proportions. The bran is the outer skin of the kernel and contains B vitamins fiber. The endosperm is the largest part of the kernel. It contains the highest amount of carbohydrate and the least amounts of vitamins and minerals. The germ contains protein, healthy fats, and minerals.

Grains can undergo a process called refinement in which the bran and germ are typically removed leaving only the starchy endosperm. This extends the shelf life of the product and changes its flavor and texture. However, the refining process strips the grain of most of its oils, fiber, vitamins, minerals, and other compounds that have important health benefits. Extensive research shows that whole grains provide significant health benefits compared to refined grains.

Have participants fill in the blanks on the picture of the kernel of wheat on page 2 of the Participant Handout.

What are the Health Benefits?

Key Nutrients: Whole grains contain starch, protein, and healthy oils. They are sources of a large variety of vitamins and minerals, including thiamin, riboflavin, folate, niacin, vitamin B6, vitamin E, potassium, phosphorus, magnesium, iron, zinc, copper, chromium, and selenium. Whole grains also provide a significant amount of dietary fiber.

Recommendations: “Make at least half your grains whole grains.” Refer to www.choosemyplate.gov for daily recommended servings of grain for age, gender, and activity level.

Health Benefits: Whole grains have been shown to have a number of health benefits. People who consume whole grains regularly tend to have decreased risk at developing cancer, diabetes, and heart disease. Consuming whole grain foods rather than refined grain can also help with weight management and maintenance. Since whole grains are high in fiber, it helps provide a feeling of fullness and satisfaction that may decrease the total amount of calories eaten. Regular consumption of whole grains reduces the risk of obesity.

Although many of the ways in which whole grains contribute to health are related to the fiber content, there has been significant evidence that fiber alone is not responsible for all of the health benefits of whole grains. Rather, nutrients in whole grains work together to promote health and prevent disease.

While benefits are most pronounced for those eating at least 3 whole grain servings a day, studies have shown that even one serving a day reduces risk of chronic disease and obesity.

Have participants write in the blanks on page 1 of the Participant Handout 3 chronic diseases that eating whole grains helps to reduce the risk of. (cancer, diabetes, heart disease, and obesity)

Whole Grain Food Varieties

Grains can be categorized by size and texture. You can substitute any grain in a recipe with a similar grain that is in the same category. For example, a dish that calls for barley can be made with a different porridge-type grain such as amaranth, or a bulgur salad can be made with another delicate, small grain such as quinoa.

Have participants read and discuss whole grain food varieties listed on pages 3 & 4 of the Participant Handout; pass around sample jars for everyone to view.

Cooking and Eating Whole Grains

Cooking most grains is very similar to cooking rice. Grains can be substituted for one another in recipes.

Review Cooking and Eating Whole Grains handout from the Whole Grains Council for tips on cooking whole grains. (See Participant Handout)

It is important to point out that some grains take longer to cook and personal preference can often be what determines when they are “done.” Whole grains often take longer to cook so taking advantage of shortcuts described in the Participant Handout can help to include whole grains more often.

Selecting and Purchasing

- Buy whole grains in bulk. They are often much cheaper, buy from stores with high turnover rates to ensure freshness.
- Read the Ingredients List and look for the word “whole” as the first ingredient.

Storing Dry, Uncooked Grains

- Place grains in the freezer for a few days, then store in airtight containers.
- Shelf life of grains varies depending on the oil content. Oily whole grains, such as quinoa and cornmeal, last only one to three months if kept in a dark, cool location. Drier grains, such as oatmeal and millet, however, can last up to one year in proper storage containers.
- Store dry grains in a refrigerator to extend shelf life.

Storing Cooked Grains

- Larger, firmer whole grains can be cooked in large batches then stored in freezer bags for several months. To thaw frozen grains place them in a sieve or colander; run cold water over them while gently breaking apart the grains with your fingers or a spatula. Drain well, then reheat or eat cold.
- Smaller, more delicate grains do not freeze as well as the grains tend to break down and become mushy. It is best to avoid freezing them and simply cook ahead and refrigerate if cooking large batches to be added later to soups, stews or salads. *Note: Use cooked grains within one week.*
- Porridge-cooked grains do not freeze as well as the others because they take a very long time to thaw. These grains are best refrigerated and reheated in a heavy covered pan with a little extra water. *Note: Use cooked grains within one week.*

Tips for Using Whole Grain Foods for Every Meal of the Day

Review page 8 in the Participant Handout for Nutritious, delicious, and convenient ways to fit whole grains into your daily routine.

Summary

Whole grain foods contain all three parts of the grain; the fibrous bran, the starchy endosperm, and the oily germ. All three parts offer us many health benefits including lowering risk of cancer, heart disease, diabetes, and obesity. Whole grains are healthful foods that offer these benefits when eaten daily. Increased benefits can be had if at least half the grains eaten all day are whole grains.

The possibilities of cooking and eating whole grain foods are endless with the wide variety of grains available to us. Try a new whole grain in your favorite grain-based recipes. Eating whole grain foods at every meal of the day is easy, delicious and nutritious.

Finish the lesson by tasting the FoodHero.org Almond Rice Pudding recipe made with two different grains. One recipe should be prepared with brown rice and the other with either a porridge-type grain or a small, delicate grain (see varieties on pages 3 & 4 in the Participant Handout for options).

Evaluation

Ask participants to please take time to evaluate the program by reading the consent form and filling out the evaluation survey. Give participants 5 minutes or so to complete the evaluation. Collect the evaluation forms and return them to your local county Extension office.

For More Information see the following resources:

Visit <http://www.choosemyplate.gov/healthy-eating-tips/ten-tips.html>

Visit www.FoodHero.org

Visit www.BobsRedMill.com

Visit www.wheatfoods.org

Krissoff, Liana. (2012) Whole Grains For a New Generation. New York, NY: Stewart, Tabori & Chang
Greene, Bert. (1988) The Grains Cookbook. New York, NY: Workman Publishing

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Almond Rice Pudding



Ingredients

- 3 cups almond milk
- 1 cup white or brown rice
- 1/4 cup sugar
- 1 teaspoon vanilla
- 1/4 teaspoon almond extract
- cinnamon to taste
- 1/4 cup toasted almonds (optional)

Serving Size 1/2 cup
Yield 6 Servings
Prep time: 5 minutes
Cooking time: 30 minutes



Directions

1. Combine almond milk and rice in a 2-3 quart saucepan, and bring to a boil.
2. Reduce heat and simmer for 1/2 hour with the lid on until the rice is soft.
3. Add sugar, vanilla, almond extract and cinnamon. Stir and serve warm.
4. Refrigerate leftovers within 2 hours.

Notes

- Add your favorite berries to the top for some color and a yummy taste!
- Add an extra cup of almond milk for a creamier texture.
- No almond milk? Use non-fat or 1% milk and 1 1/2 teaspoons almond extract.

Nutrition Facts	
Serving Size about 1/2 cup (153g)	
Servings Per Container 6	
Amount Per Serving	
Calories 170	Calories from Fat 10
% Daily Value*	
Total Fat 1.5g	2%
Saturated Fat 0g	0%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 75mg	3%
Total Carbohydrate 36g	12%
Dietary Fiber 1g	4%
Sugars 12g	
Protein 3g	
Vitamin A 6%	• Vitamin C 0%
Calcium 10%	• Iron 6%
*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:	
	Calories: 2,000 2,500
Total Fat	Less than 65g 80g
Saturated Fat	Less than 20g 25g
Cholesterol	Less than 300mg 300mg
Sodium	Less than 2,400mg 2,400mg
Total Carbohydrate	300g 375g
Dietary Fiber	25g 30g
Calories per gram:	
Fat 9 • Carbohydrate 4 • Protein 4	