



Volunteer Leader Training Guide

Whole Grains for Health

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Target Audience

- EHC Members
- Older Adults

Objectives

Participants will be able to:

- Identify whole grain products from refined grain products.
- Make healthy whole grain substitutions to their favorite refined grain recipes.

Handouts

- Whole Grains for Health, FSFCS816 (available through print on demand and at <http://uaex.edu/health-living/food-nutrition/eating-well/Whole%20Grains%20Handout.pdf>)
- Whole Grain Recipes handout
- Evaluation form

Advanced Preparation

- Prior to teaching the lesson, review the main teaching points and study the handouts.
- Order copies of Whole Grains for Health fact sheet; make copies of Whole Grain Recipes handout and Evaluation form.

Optional Preparation

- Purchase examples of whole grains and prepare samples of whole grains in zip-top bag for easy viewing. Remember to label the bags using a marker.
- Make ahead and bring the Quinoa and Black Beans recipe for tasting (recipe on the Whole Grains for Health fact sheet).

Suggestions for Teaching

- Bring samples of grains being discussed. Allow participants to see, feel, touch and smell the different varieties of grains as you discuss each grain item.
- Demonstrate a whole grain recipe and provide food samples.
- Encourage participants to discuss any experiences with uncommon whole grain products they may have used in the past.

Main Teaching Points

Introduction to Whole Grains

Whole grains are products made from 100% of the entire grain kernel – the bran, germ and endosperm. These parts of the whole grain contain naturally occurring nutrients that can reduce the risk of chronic diseases and help manage your weight.

Why Eat Whole Grains?

Grains are wholesome foods and are rich in nutrients such as fiber, selenium, potassium and magnesium. When compared to refined grains, whole grains take longer to digest because your body works to break down all the parts and nutrients found in these products. A slower digestion time also promotes better blood glucose and insulin levels.

The fiber found in whole grains also has several functions.

- ✓ Promotes the integrity of your gut (intestinal tract) by increasing the water-holding capacity of digested foods.
- ✓ Increases fecal bulk and promotes regular bowel movements.
- ✓ Increases satiety and can help manage weight by reducing food cravings.

Certain soluble fibers can help lower cholesterol and promote a healthy heart. This may reduce the risk of heart disease, stroke, type 2 diabetes and some forms of cancer, and may also help with weight control.

Types of Whole Grains

When you roam the aisles in a grocery store, you may come across many types of whole grains. Some of the common whole grains you can choose from are:

Brown Rice

This gluten-free product has a nut-like flavor and a chewy texture. Whole grain brown rice is less processed than regular white rice and contains more nutrients. It has a shorter shelf-life due to the presence of bran – so it lasts about six months before becoming rancid. It is mostly brown in color but can be red or black. Brown rice takes about two times longer to cook than white rice.

Aromatic Rice

Varieties of rice that have a nut-like aroma and taste fall into this group. These rice types are also gluten-free. Whole grain versions are healthier options than the refined types. The most popular varieties of aromatic rice include basmati rice and jasmine rice.

Buckwheat

Unlike other grains, buckwheat is not from the grass family. Buckwheat is a fruit seed and has been adopted into the grain family due to its appearance, nutrients, nutty flavor and usage. Buckwheat has a distinctive flavor, is nutritionally superior to wheat and is gluten free. The triangular seeds of buckwheat can be ground into flour, and buckwheat is commonly used in preparation of pancakes and other baked items.

Millet

Millet is a quick-cooking, gluten-free grain. Millet can be prepared in three ways – fluffy, sticky or creamy – and is ready in approximately 30 minutes. For cooking one cup of millet, you will need about 2½ cups of liquid. Millet can be used in its natural grain form in side dishes and desserts and can also be ground into flour.

Quinoa (pronounced keen-wah)

Quinoa is a small, flat, round ancient seed that can be prepared like rice or ground into flour. It is a complete protein and is gaining popularity among vegetarians. Quinoa can be found as several varieties: white, red or black. This gluten-free alternative is often used as a substitute for rice or pasta. It can be used in its natural form in side dishes, soups and salads, but it is increasingly being used in processed foods.

Wild Rice

Wild rice is very long, brown/black in color and has a nut-like flavor. It is not true rice but a seed of a grass grown in the Great Lakes region of the U.S. Wild rice is often used in combination with other varieties of rice or grains. This gluten-free rice is high in antioxidants and has twice the protein and fiber of brown rice, but it has less iron and calcium.

Bulgur

Bulgur is made from wheat kernels that have been boiled, dried, cracked and sorted by size. A very nutritious grain that includes more fiber than many, bulgur is quick cooking with a mild flavor. While great in side dishes or salads, it can also be used to stretch a budget by adding it to ground beef dishes, such as meatloaf or sloppy joes. *Bulgur is NOT gluten-free.*

Farro

Also known as Emmer, farro is an ancient form of wheat now grown in the U.S. Look for words “whole farro” instead of “pearled farro” to ensure it is whole grain. Farro is often used in salads, soups, pasta or risotto. *Farro is NOT gluten-free.*

Wheat Berries

Wheat berries are whole-wheat kernels that impart a slightly sweet and nutty flavor. They need to be soaked overnight and then boiled for at least an hour before they are ready to eat. Wheat berries are often used in side dishes or breakfast cereals. *Wheat berries are NOT gluten-free.*

Finding Whole Grains

The Whole Grain Stamp

Grocery store aisles can be confusing when you see the large variety of grain products. We will discuss how to quickly identify whole grains in a packaged product. It’s easier than you think. Look for the whole grain stamp on package labels.

If a product bears the 100% Stamp, then ALL of its grain ingredients are whole grains. In order to use the 100% Stamp, a product must have a minimum of 16 grams of whole grain per labeled serving.

If a product bears the Basic Stamp, it contains at least 8 grams or a half serving of whole grain but may also contain some refined grain.



Image courtesy of the Oldways and the Whole Grains Council

Each stamp also shows a number that tells you how many grams of whole grain ingredients are in a serving of the product. The whole grain stamp is optional, so not all foods containing whole grains will have the stamp.

The Ingredients Label

Not all products contain the whole grain stamp. If you don’t see the stamp on the product package, move on to read the ingredients list. Choose products that name a whole grain ingredient first. Look for the following terms to identify whole grain products:

Brown Rice	Buckwheat	Bulgur
Cracked Wheat	Hulled Barley	Oatmeal
Whole Grain Cornmeal	Whole Oats	Whole Rye
Whole Wheat	Whole White Wheat	Wild Rice

Beware of Incorrect Indicators

The color of a food is not an indication that it is a whole grain food. A brown-colored grain product can be produced using molasses, food color or other ingredients. In contrast, products made from whole white wheat may not be brown in color but are still whole grain.

Some grain products may appear to be whole grain because of color or marketing terms, but they may not contain any whole grain. Words such as those in the table below may appear on a package but do not mean whole grain.

Bran	Cracked Wheat	Enriched Flour
Farina	Germ	Grits
Hominy	Multi-Grain	Seven-Grain
Stone-Ground	Wheat Germ	100% Wheat

How Much Should You Eat?

The number of servings each person should eat daily depends on age, sex, level of physical activity and calorie needs. According to MyPlate, adults need about 6-8 ounces of grain equivalents per day. In general, experts recommend making half of the grains eaten daily whole grain. To make half your grains whole grains, substitute whole grain foods for refined grain products. For example, eat 100% whole-wheat bread or bagels instead of white bread or bagels, brown rice instead of white rice and whole grain cereals instead of refined cereals.

You can easily add whole grains to your meals and even use your favorite recipes. Try some of these ideas:

Making Simple Substitutions

Substitute up to half the white flour with whole wheat, buckwheat, millet or oat flour in your regular recipes for cookies, muffins, quick breads, pancakes or waffles. They may need a bit more leavening in order to rise.

For canned or homemade soup, add half a cup of cooked whole grain such as wheat or rye berries, wild rice, brown rice, sorghum or barley.

Use whole corn meal for corn breads and muffins.

Add three-quarters of a cup of uncooked oats instead of bread crumbs for each pound of ground beef or turkey when you make meatballs, burgers or meatloaf.

Try New Foods

Make risottos, pilafs and other dishes with whole grains such as brown rice, barley, bulgur, millet, quinoa or sorghum.

Enjoy whole grain salads like tabbouleh.

Buy whole grain pasta or one of the blends that's part whole grain, part refined grain.

Use whole grain pita bread, tortillas or bagels for sandwiches instead of white bread.

Tips for Cooking Whole Grains

Most whole grains can be soaked prior to cooking to reduce overall cooking time (with the exception of quinoa).

Cook whole grains in large batches and keep in the refrigerator for several days or freeze for later use.

Most grains cook similarly to rice. They are done when preferred tenderness is reached. More water may be added if you desire more tender grains.

For most grains, rinse before cooking.

References:

- Bennion and Scheule, 2010. *Introductory Foods*, 13th edition
- Herbst and Herbst, 2009. *The Deluxe Food Lover's Companion*
- wholegrainscouncil.org