



# Healthy Living

## Whole Grains

**Overview:** Whole grain foods are an important source of vitamins, minerals, and fiber. We should aim to make at least half the grain foods we eat be whole grain. Whole grain foods include the entire grain while processed grain foods have the germ and bran layers removed. Include information from the “Background: Why eat more whole grains?” sheet depending on the age of youth and time restraints.

**Supplies:**

- Small baggies filled with refined and whole grain examples. Include: white flour, whole wheat flour, cornmeal, popcorn, quinoa (Keen-wah), oatmeal, white rice, brown rice and any others you like. Use one bag for each grain item.
- Handouts: Background: Why eat more whole grains? and whole grain parts sheet

**Time:** 15-20 minutes

**Activities:**

1. Discuss with students that grains are seeds of plants. Some grains contain all parts of the grain seed. *Ask youth what foods they like eat from the grains group.* Take several suggestions. Continue with whole grain discussion by showing the Whole Grain Parts handout and saying:
  - The outer layer is known as the “**bran**” or “**hull**”. This part is the fiber that helps keep our digestive tracts healthy, fills us up and keeps us full longer.
  - The inner part of the seed is called the **germ**. This is what becomes a baby plant and is packed with healthy nutrients. When this part is removed, we lose fiber, vitamins and minerals.
  - The largest part of the of the seed is called the **endosperm**. This part provides us with carbohydrates but very few vitamins, minerals or fiber. This is the part that is used in refined grain foods.
2. Pass the baggies filled with various grains around the room so youth can see them up close. Ask if they can identify the whole grains vs the refined grains.
3. In order for us to identify whole grain products, we have to know where to look on the packaging. Hand out the “Read the Label” sheet with white bread and whole wheat bread listed.  
\*Ask youth to identify things on the label that help them see the difference between the refined grain and the whole grain product. Help them if necessary by offering the following:
  - Say, let’s look at the two labels and ingredient lists. One is white bread and the other is whole wheat bread.
  - Ingredients are listed on all packages in the order with the largest amount first.
  - Healthier foods have a whole grain listed as the first or second ingredient and include the word “whole” before a grain item. Examples are: whole wheat, whole corn, whole oats, etc.
  - Some other common whole grains include: rye flour, brown rice, wild rice, and barley.

- Ask the group how many grams of fiber they think people should consume each day. Take several answers.
  - Tell them that most people need between 25 and 35 grams of fiber every day! However, most American only get about 15 grams per day. We have some work to do!
4. Recap the main points of the lesson by asking youth what they learned, if anything surprised them, and if they think they might eat differently after participating in the lesson.

Alternative activities:

1. Gather empty boxes or copies of label and ingredients from them. Pass these out so youth can identify different whole grain products as well as identify those with higher fiber.
2. Place all of the food packages mentioned above in a pile at one end of the room. Have teams of youth run to the pile, pick up a package and run back to the group. Have the groups get in line from lowest to highest fiber. As a challenge, have them do this without talking!

## Background: Why Eat More Whole Grains?

### Whole grain foods are nutritious!

Whole grains are an important source of fiber, vitamins and minerals. They also contain phytonutrients, compounds occurring naturally in plants that help promote health and prevent cancer.

### What are whole grains?

Whole grain foods are made from the entire grain seed, called the kernel. The kernel has three components: bran, germ, and endosperm. The bran is the fiber-rich outer shell, the endosperm is the starchy middle layer, and the germ is the nutrient-packed inner layer.

### Why are whole grains more nutritious than refined grains?

Refined grains are whole grains that have gone through a milling process in which most of the bran and germ is removed. This is done to give grains a finer texture and improve their shelf life, but it results in the loss of fiber, vitamins, and minerals. While most refined grains are enriched, which means that some nutrients are added back, they still lack the fiber, phytochemicals, and other nutrients of whole grain.

### Whole grains and fiber help prevent disease

In addition to keeping more of their nutrients, whole grains contain dietary fiber. Fiber can prevent constipation and provide needed bulk for normal functioning and health of the gastrointestinal tract. Because fiber helps gather and eliminate cholesterol, a high fiber diet is associated with a lower risk of heart disease, as well as some cancers and diabetes. Diets rich in whole grains and fiber may also help with weight maintenance. Note that some whole grains have more fiber than others, for example whole wheat is high, brown rice is low, but both are still healthier than their refined counterparts.

### Grains are low-fat

Grains are naturally low in fat. Sometimes fats like butter or margarine, or sauces, are added to grains when they are prepared or served, but the grains themselves are low-fat.

### How much is needed?

Most Americans consume enough grain products, but most are refined grains. At least half of all grain products eaten should be made with whole grains. In terms of fiber, 25 grams of fiber per day is recommended for a typical 2000 calorie diet. See Grains tip sheet at [ChooseMyPlate.gov](http://ChooseMyPlate.gov) for more detail.

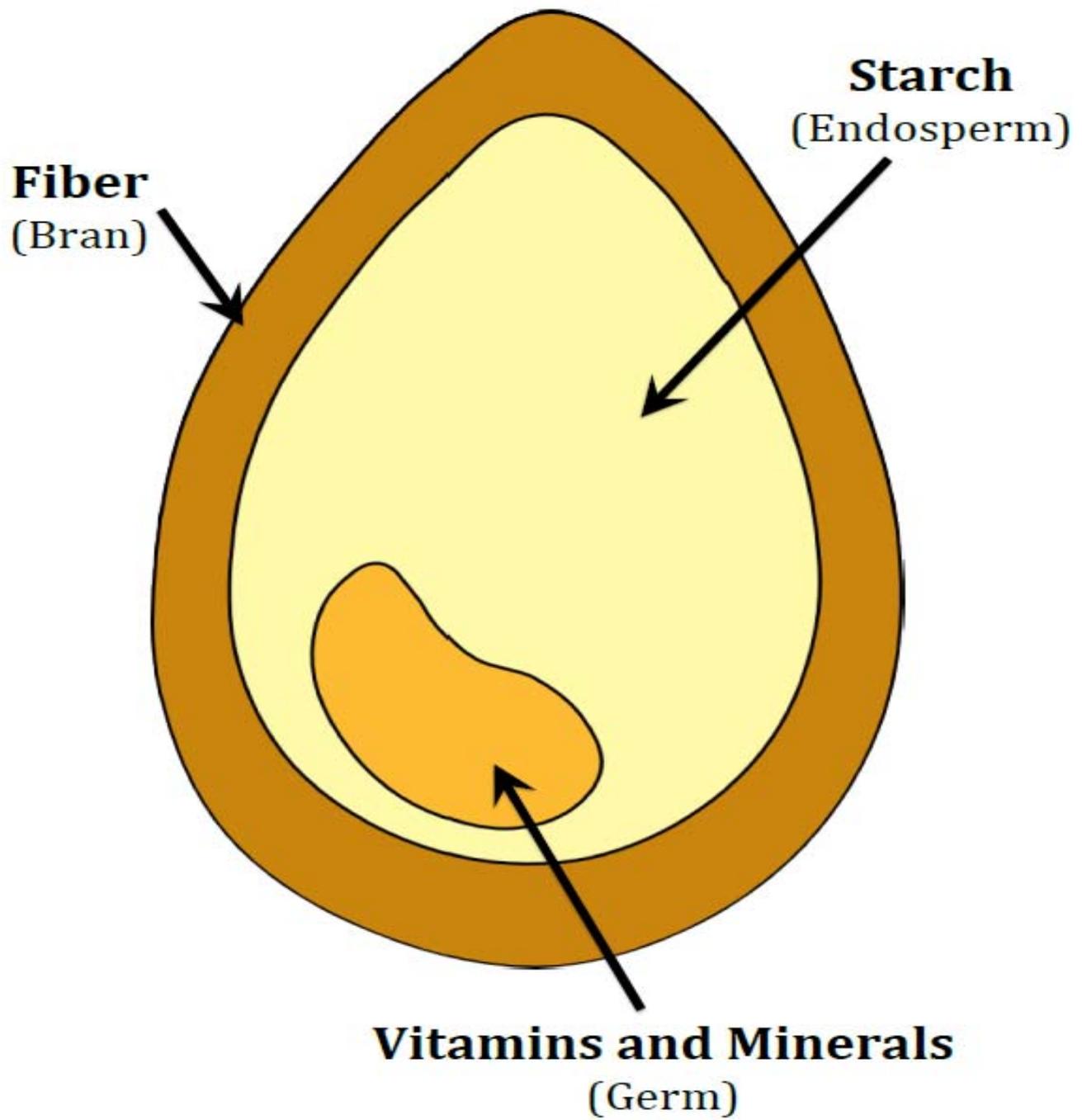
### What are some examples of whole grains?

Whole grains include whole wheat, brown rice, oats, popcorn, blue cornmeal and other whole-grain corn (note that most yellow cornmeal is enriched and degermed, not whole grain), whole rye, whole barley (not “pearled”), bulgur, kasha, quinoa, millet, wild rice, and Graham flour. If the label just says “wheat flour” or “rice” or “corn” it is NOT a whole grain. Note that couscous is not a whole grain; it is a pasta made from wheat, usually refined wheat.

### How can I tell if a food is made with whole grain?

Be careful of whole grain claims on the front of a package – sometimes there is only a small amount of whole grains! Instead, on the ingredient list, look for foods with a whole grain listed as the first or second ingredient—for example, whole wheat flour, whole oats, whole grain corn, or brown rice. Also look at fiber on the Nutrition Facts Label. When comparing similar products containing the same whole grain, higher fiber usually indicates more whole grain.

# Whole Grain Parts



# Read the Label!

## White Bread

## Whole Wheat Bread

### Nutrition Facts

Serving Size 1 slice			
Servings Per loaf 12			
Amount Per Serving			
Calories	130	Calories from Fat	15
% Daily Value *			
<b>Total Fat</b>	<b>1.5g</b>		<b>2%</b>
Saturated Fat	0g		0%
Trans Fat	0g		
<b>Cholesterol</b>	<b>0mg</b>		<b>0%</b>
<b>Sodium</b>	<b>200mg</b>		<b>8%</b>
<b>Total Carbohydrate</b>	<b>25g</b>		<b>8%</b>
Dietary Fiber	1g		3%
Sugars	1g		
<b>Protein</b>	<b>2g</b>		
Vitamin A	0%	Vitamin C	0%
Calcium	0%	Iron	8%
* Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.			
12% calories from fat			

**INGREDIENTS:**  
ENRICHED WHEAT FLOUR, WATER, VEGETABLE OIL, SUGAR, YEAST, SALT

### Nutrition Facts

Serving Size 1 slice			
Servings Per loaf 12			
Amount Per Serving			
Calories	120	Calories from Fat	15
% Daily Value *			
<b>Total Fat</b>	<b>1.5g</b>		<b>2%</b>
Saturated Fat	0g		0%
Trans Fat	0g		
<b>Cholesterol</b>	<b>0mg</b>		<b>0%</b>
<b>Sodium</b>	<b>200mg</b>		<b>8%</b>
<b>Total Carbohydrate</b>	<b>24g</b>		<b>8%</b>
Dietary Fiber	3g		12%
Sugars	1g		
<b>Protein</b>	<b>4g</b>		
Vitamin A	0%	Vitamin C	0%
Calcium	0%	Iron	8%
* Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.			
12% calories from fat			

**INGREDIENTS:**  
WHOLE WHEAT FLOUR, WATER, VEGETABLE OIL, SUGAR, YEAST, SALT