



## WHOLE GRAINS - FINDING THE HEALTH BENEFITS A NUTRITION IN-SERVICE FOR STAFF

“I will spend my whole life at the oven door seeing that no one is denied bread and, so as to give a lesson of charity, especially those who did not bring flour.”

~ Jose Marti



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## A lesson on the health benefits of whole grains and how to share this information with WIC clients.

- Who:** Participants: WIC Staff, range of 2-15 participants with a varying degree of maternal, infant and child nutrition knowledge and WIC experience.  
Leader: WIC RD/Nutritionist
- Why:** As the benefits of whole grains continue to be discovered, products containing whole grains become more prevalent in the market place. By understanding the health benefits of whole grains and strategies to identify whole grains, WIC staff can better share information about whole grains with clients.
- When:** A monthly in-service that is designed to be 30-60 minutes - depending on the discussion and the number of staff attending.
- Where:** The session was designed for a WIC Classroom, meeting room or large office depending on the size of the group.
- What:** By the end of this session staff will have:
- Explored the frequency of “whole grain” claims in food packaging.
  - Defined the term “whole grain.”
  - Named the health benefits of whole grains.
  - Reviewed recommended intake levels for whole grains.
  - Discussed strategies to identify whole grains.
  - Brainstormed ideas to include more whole grains.
- Materials Needed:** For introduction and warm-up - Packages of foods with “whole grain” promoted on package or whole grain foods. See included information, “Ideas for Food to Review.”
- Copies of:
- “Identifying Whole Grain Products,” see attached
  - Whole Grains In-service *Participant Copy*
  - Whole Grains In-service *Feedback Form*

**Background** Please read and review before leading group:

- Reading for Leaders:**
- Whole Grains Fact Sheet from the International Food Information Council; link from <http://www.nal.usda.gov/wicworks>, Topics A-Z, Whole Grains
  - “Identifying Whole Grain Products,” printed from <http://www.wholegrainscouncil.org/whole-grains-101/identifying-whole-grain-products>

For further review and consult:

Whole Grains:

- <http://www.wholegrainscouncil.org>

Whole Grains in WIC Food Package:

- [http://www.nal.usda.gov/wicworks/Learning\\_Center/Food\\_Packages.html](http://www.nal.usda.gov/wicworks/Learning_Center/Food_Packages.html)

Healthy Whole Grains:

- [www.wichealth.org](http://www.wichealth.org)

- How:**
- Schedule in-service.
  - Review background information.
  - Review in-service *Leader Copy* (*italicized print indicates leader speaking*).
  - Decide how to obtain sample foods to review and obtain OR print label information from web-sites (see attached “Ideas for Foods to Review”).
  - Prepare materials needed.
  - Have fun!

**Introduction / Warm-Up****12 minutes**

*Welcome! I will be the leader for this month's nutrition training. I encourage all of you to participate. Together we can explore our topic and discover strategies to support our WIC clients.*

*By the end of this session you will have:*

- *Explored the frequency of whole grain claims in food packaging.*
- *Defined the term "whole grain."*
- *Named the health benefits of whole grains.*
- *Reviewed recommended intake levels for whole grains.*
- *Discussed strategies to identify whole grains.*
- *Brainstormed ideas to include more whole grains.*

*Has anyone noticed any type of "whole grain" claims on food packaging?*

*I have several products (or labels) of foods that have the term "whole grain" listed on their packaging. In pairs, examine the foods (or labels). What do you notice about how the term "whole grain" is used? What similarities and differences do you see?*

Give time for examination and discussion.

Call group back.

Hear feedback.

Responses may include:

- Many brands have their own "health" symbol system.
- "Contains whole grain" vs. "100% whole grain" vs. "good source of whole grain."
- Fiber is not the same as whole grain.
- Some foods are made from whole grains but are not necessarily "healthy."

**Part 1****5 minutes****Defining the term “whole grain”**

*Let's define what a “whole grain” is and how products that appear to be made with “white” flour may be called whole grain.*

*Listen as we take turns reading from the box below about whole grains.*

*Underline what is new information to you.*

A whole grain consists of the entire grain seed of a plant. This seed, also known as the kernel, is made up of three key parts: the bran, the germ, and the endosperm. Refining normally removes the bran and the germ, leaving only the endosperm. Without the bran and germ, about 25% of a grain's protein is lost, along with at least seventeen key nutrients. Processors add back some vitamins and minerals to enrich refined grains, so refined products still contribute valuable nutrients. But whole grains provide more protein, more fiber and many important vitamins and minerals.

Whole grains may be eaten whole, cracked, split, flaked, or ground. Most often, they are milled into flour and used to make breads, cereals, pasta, crackers, and other grain-based foods.

A whole grain can be a complete food, such as oatmeal, brown rice, barley, or popcorn, or used as an ingredient in food, such as whole wheat flour in bread or cereal. Popular types of whole grains include whole wheat, whole oats/oatmeal, whole grain cornmeal, popcorn, brown rice, whole rye, whole-grain barley, and wild rice. Food manufacturers have created new products and reformulated existing products to increase levels of whole grains.

Some whole grain products are being made with “white wheat flour,” which comes from a naturally occurring albino variety of wheat. The term “white flour” has often been used to mean “refined flour,” so “whole white wheat flour” sounds like a contradiction in terms. But it is simply WHOLE flour – including the bran, germ and endosperm – made from WHITE wheat. This flour resembles typical refined flour, but it has the nutrition and fiber of whole wheat. White wheat does not contain tannins and phenolic acid, compounds found in the outer bran of the red wheat commonly used to make whole-wheat flour. In comparison, white wheat has a mild, sweet flavor more similar to that of a refined grain than a whole grain.

*Who would like to share what is new information to them?*

**Part 2****5 minutes****Finding the health benefits**

*Why all the fuss about whole grains? It's because of discovered health benefits!*

*Has anyone heard of any of the health benefits of whole grains?*

Hear responses and list on white board or flip chart. Add other ideas that were not shared.

List should include:

- Heart Disease: reduced risk of cardio-vascular disease; decrease low density lipoprotein (LDL), triglycerides, and blood pressure; increase high density lipoprotein (HDL)
- Cancer: reduced risk of gastrointestinal cancers and hormone-dependant (endometrial and ovarian) cancers
- Gastrointestinal health: alleviates constipation; decrease risk of diverticulosis and diverticulitis
- Diabetes: reduced risk of type 2 diabetes, maintenance of blood glucose levels
- Weight management: enhanced satiety, prolonged gastric emptying to delay return of hunger, and increased insulin sensitivity

**Part 3****3 minutes****Recommended intake for adults and children**

*We now know what whole grains are and what the health benefit are...now the question is how much should we consume?*

*Listen as I read from the review box below about whole grain serving recommendations.*

*The US Dietary Guidelines recommend that everyone should eat at least half their grains as whole grains – that's at least 3 to 5 servings for adults and 2 to 3 servings for children. An adult serving is 1 slice of bread or ½ cup of brown rice. More specifically a serving equals 16 grams of whole grains. Sometimes whole grain grams are specifically listed on a label and sometimes not.*

- *16 grams per serving is considered an "excellent source."*
- *8 grams per serving is considered a "good source."*

Fiber varies from grain to grain with ranges from 3 to 15%. High fiber products sometimes contain bran or other added fiber without actually having much, if any, whole grain. So, checking the fiber on a label is NOT a very reliable way to guess whether a product is truly a whole grain.

*Who believes they get enough whole grains? Who believes they could use more in their diet?*

**Additional Activity: If you used actual products in the introduction 7 minutes**

Invite participants to look at the packages once again.

*With the knowledge that you now have does anything strike you differently than before?*

*Can you identify how many grams of whole grain are in a serving of the product?*

*Which have the most, which have the least?*

*Does being "whole grain" automatically make a product "healthy?"*

**Part 4****7 minutes****Reviewing the handout**

Handout "Identifying Whole Grain Products"

*Gather in groups of two or three. Review the handout and discuss the following:*

*How will you be able to better identify whole grain products?*

*Brainstorm how you could increase the amount of whole grains in your diet.*

*How do you see yourself using this information with clients?*

*We will hear some of your thoughts and ideas.*

Allow time for discussion. Call group back after 4 minutes and hear responses.

**Closing****1 minute**

*Thanks for participating today. We heard some great discussion and ideas that will help us to better serve our WIC clients.*

*Please fill out a Feedback Form – your input is greatly appreciated.*

*You can find more information on whole grains at <http://www.nal.usda.gov/wicworks> Topics A-Z; Whole Grains.*

Collect Feedback Forms.

Make any notes you have as a leader.

Review participants' Feedback Forms.

Document this training.

**Alternate Activity****20 minutes**

<http://wichealth.org/>

Choose the topic “Whole Grains.” Follow the prompts through the module. Click on the helpful information.

Share as a group what you found interesting and useful about this web-site.

### Ideas for Food to Review

To obtain food products or packages to review:

- Check to see if there is money available in WIC budget to purchase samples.
- Prior to training ask staff to look in their pantry and bring packages of grain foods that promote whole grains.
- Obtain photos and label information from web sites.
- Gather label information from products at grocery store.

#### Whole Grain Foods:

Oatmeal  
Brown Rice  
Bulgur  
Popcorn  
100% Whole Wheat Bread

#### Foods with Packaging "Selling" Whole Grains:

Crackers,  
Breads  
Cereals  
Tortillas

#### WIC Cereals:

Multi-Grain Cheerios  
Corn, Rice or Wheat Chex  
Kellogg's Special K

Web site featuring a list of whole grain products:

<http://www.wholegrainscouncil.org/find-whole-grains/snacks>

Web sites featuring labels:

<http://www.generalmills.com>

<http://www2.kelloggs.com>

<http://www.nabisco.com>

<http://www.quakeroats.com>

<http://www.kraftfoods.com>

**Note:** If a food label states the package contains whole grain, the "whole grain" part of the food inside the package is required to have virtually the same proportions of bran, germ, and endosperm as the harvested kernel does before it is processed.

## A lesson on the health benefits of whole grains and how to share this information with WIC clients.

### Learning Objectives

By the end of this session you will have:

- Explored the frequency of whole grain claims in food packaging.
- Defined the term “whole grain.”
- Named the health benefits of whole grains.
- Reviewed recommended intake levels for whole grains.
- Discussed strategies to identify whole grains.
- Brainstormed ideas to include more whole grains.

Has anyone noticed any type of “whole grain” claims on food packaging?

In pairs, examine the foods or review food labels.

What do you notice about how the term “whole grain” is used?

What similarities and differences do you see?

### Part 1

#### Defining the term “whole grain”

What is a whole grain?

Underline what is new information to you.

A whole grain consists of the entire grain seed of a plant. This seed, also known as the kernel, is made up of three key parts: the bran, the germ, and the endosperm. Refining normally removes the bran and the germ, leaving only the endosperm. Without the bran and germ, about 25% of a grain’s protein is lost, along with at least seventeen key nutrients. Processors add back some vitamins and minerals to enrich refined grains, so refined products still contribute valuable nutrients. But whole grains provide more protein, more fiber and many important vitamins and minerals.

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rice. Food manufacturers have created new products and reformulated existing products to increase levels of whole grains.

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## **Part 2**

### **Finding the health benefits**

What have you heard about the health benefits of whole grains?

## **Part 3**

### **Recommended intake for adults and children**

Listen as I read from the review box below about whole grain serving recommendations:

*The US Dietary Guidelines recommend that everyone should eat at least half their grains as whole grains – that's at least 3 to 5 servings for adults and 2 to 3 servings for children. An adult serving is 1 slice of bread or ½ cup of brown rice. More specifically a serving equals 16 grams of whole grains. Sometimes whole grain grams are specifically listed on a label and sometimes not.*

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Fiber varies from grain to grain with ranges from 3 to 15%. High fiber products sometimes contain bran or other added fiber without actually having much, if any, whole grain. So, checking the fiber on a label is NOT a very reliable way to guess whether a product is truly a whole grain.

Do you believe you get the recommended amount of whole grains?

## **Part 4**

### **Reviewing the handout**

Gather in groups of two or three. Review the handout and discuss the following:

How will you be able to better identify whole grain products?

Brainstorm how you could increase the amount of whole grains in your diet.

How do you see yourself using this information with clients?

We will hear some of your thoughts and ideas.

### **Closing**

Thanks for participating today.

Please fill out a Feedback Form - your input is greatly appreciated.

You can find more information on whole grains at  
<http://www.nal.usda.gov/wicworks> Topics A-Z; Whole Grains



## Identifying Whole Grain Products

### Whole Grain Foods:

Whole wheat bread

Whole wheat pasta

Brown or wild rice

Whole grain cereal

Popcorn

Oatmeal

Whole-wheat tortillas

Corn tortillas

Bulgur

Quinoa

Whole grain barley

### Whole Grain on Labels:

Whole grain [name of grain]

Stone-ground whole [grain]

Whole wheat

Brown rice

Rye

### Refined Grain (not necessarily whole grain):

Wheat

Made with whole grain

Stone ground

Enriched flour

Wheat germ

Cracked wheat

Multi-grain

Wheatberries



