



## Session 2: Maniacs Go On the Road

### Content Learning Objectives:

- Identify foods that are high in whole grains and fiber.
- Learn how to make food choices that include whole grains and fiber.
- Describe the health benefits of eating foods rich in whole grains and fiber.
- Prepare food items that contain whole grains and fiber.
- Reinforce the importance of healthy eating and physical activity through various fun activities, interactive games and taste testing opportunities.

### Key Components:

- Why are whole grains good for you?
  - Whole grains contain all three parts of the grain---the bran, then endosperm, and the germ. An excellent free handout showing the different parts of the grain can be found at [http://www.bellinstitute.com/stream\\_document.aspx?rRID=3635&pRID=972](http://www.bellinstitute.com/stream_document.aspx?rRID=3635&pRID=972)
    - *Bran layer* is full of fiber, B vitamins, and 50-80% of the grain's minerals
    - *Endosperm* is full of the complex carbohydrate (starch), protein and a small amount of B vitamins
    - *Germ* has lots of vitamin B, vitamin E and other healthful nutrients
  - A food is considered *whole grain* when it has all three parts of the grain present. In comparison, *refined* grained foods (white bread or white rice) only have the endosperm. By removing the bran and germ, 20-90% of the nutrients content and most of the fiber is gone. (Show examples of whole wheat kernels, bran, white flour and wheat flour)
  - Most refined grain foods (white bread or rice) are “enriched” with some of the nutrients lost in milling however the fiber is usually not replaced.
- What is fiber and why is it good for you?
  - Fiber is found in plant foods like fruits, vegetables, grains, nuts, seeds, and legumes. Where on the MyPyramid would we find these types of foods? (Show MyPyramid Food Guide Chart) It is not found in animal-source foods. Fiber gives plants their structure while they are growing and gives them crunch or texture when they are eaten. The body cannot digest fiber easily. This is why fiber is sometimes called “bulk” or “roughage”.
  - Research suggests that fiber may be beneficial in the prevention and/or treatment of constipation, may decrease the risk of colon cancer and may improve blood glucose and cholesterol levels.

- Finding foods with whole grains and fiber in your grocery store.
  - Look for the words “*whole grain*” on the package. Words like “100% wheat”, “multi-grain”, “stone ground” and “pumpernickel” do not mean that they have whole grains and/or are high in fiber. (Using a kitchen scale, weigh a loaf of white and whole wheat bread-Why does one loaf weigh so much more than the other? Could this be used to help find foods that have whole grain?)
  - Read labels: on the package’s list of ingredients the first ingredient listed is present in the highest amount. Look for the word “*whole*” in front of the word grain. Don’t be fooled by color. Dark or brown bread may just have molasses or caramel food coloring added. To see how much fiber is in a serving of food, read the ingredient panel. (Conduct cereal activity where youth practice comparing fiber in food.)
- Play “The Grain Game” or “Strawberry Relay Race (Directions listed in experiential learning activities section)
- Prepare recipes
- Evaluate session using “Got Whole Bread” worksheet

### **Experiential Learning Activities:**

- Display: Diagram of grain parts. Free handout showing the parts of grain: [http://www.bellinstitute.com/stream\\_document.aspx?rRID=3635&pRID=972](http://www.bellinstitute.com/stream_document.aspx?rRID=3635&pRID=972)
- Exhibit: whole wheat kernels, bran, white flour and wheat flour
- Activity: Using a food scale, weigh the difference between white and whole wheat bread. Why is one loaf of bread so much heavier than the other? Which bread do you think has the most nutrients and most fiber?
- Activity: Label Reading. Collect a variety of food packages:
  - With words “whole grain”, 100% wheat, “multigrain”, “stone ground” or “pumpernickel” and have youth compare fiber content.
  - “Finding the Fiber” using the chart, read the labels of four kinds of ready-to-eat cereal and compare the fiber content. In the products, which ingredients make them have more or less fiber and sugar? Which cereal is more nutritious? Why?
- Activity: Display a variety of food items that youth enjoy eating such as: popcorn, bagels, pop tarts, cereal bars, snack chips, snack crackers, etc. Have both high fiber/whole wheat versions and refined products. Have youth decide which food items would be the more nutritious choices and why.

- Physical Activity: The Grain Game
  - *Equipment needed:* 3 boxes or cones with signs that read “Germ”, “Bran” and “Endosperm”; masking tape to hold the signs to the boxes
  - *Explain to participants:* Today we learned about grains. One of the things we talked about is the parts of the grain. Can anyone remember what the parts of the grain and what they do? (Germ – nourishment for the seed, Bran – outer shell, Endosperm – provides energy). Now we are going to play a game based on the parts of the grain.
  - *How to play:* Place the 3 labeled boxes/cones on the ground - far apart, or close together, depending on the size of the group playing. Place them in line: First - *Bran*, second - *Endosperm* and third - *Germ*. Have participants gather at the *Bran*. The leader calls out a “grain part” and all the youth move to the cone that is called. The last participant into the “grain part” is out of the game. The game continues until only two are left.
  - To make the game more exciting, add other actions such as *Grow*: participants must stand up and raise their arms in the air (the last to do so is out), and *Grind*: participants must kneel on the ground and cover their head (the last to do so is out).
  
- Physical Activity: Strawberry Relay Race
  - *Equipment needed:* 2 tables, 4 bowls, dry measuring cups, 1 box healthy sugarless bran type cereal, 2 spoons, 8 plastic or actual strawberries (If using actual strawberries have a few extra on hand incase berries get dropped or stepped on.)
  - *Explain to participants:* Today we learned the importance of eating foods high in fiber. What are some of the reasons we should include high fiber foods in our diet? How do we know if a food is a good source of fiber? Let’s look at the label on the box of cereal and see what is a serving. Have individuals measure the correct serving size of cereal in each of the 4 bowls have another volunteer read the nutrition facts information on the cereal box label for the amount of fiber in one serving of cereal. Have another volunteer place 2 strawberries on top of the cereal in each of the bowls. Ask if they think strawberries would also be a good source of fiber? What other fruits might they like to put on cereal to add additional fiber? Place two bowls of cereal on each of the two tables.
  - *How to play:* Space tables 6-8 yards apart. Place two bowls of cereal with strawberries on the ends of each table. Divide participants into two even lines. Give the first person in each line a spoon. On the “Go” signal, two people will run to the first table and scoop one strawberry from the cereal bowl. The strawberry will be carried to the next bowl on the second table and placed on the cereal. Using the same spoon, another strawberry is picked up and brought back to the first table and placed in the cereal bowl. The spoon is then passed on to the next relay participant. The game is completed when everyone has had an opportunity to play.

- Sanitize food preparation area, properly wash hands and prepare recipes:
  - Walking Nachos
  - Hit the Trail Mix
  - Middle of the Road Maniacs

**Handouts:**

- “Munchin’ Maniac Go On the Road” Recipes
- “Parts of a Grain” visual
- MyPyramid handout
- “What’s In Your Cereal” worksheet
- “Got Whole Bread” evaluation worksheet

**Lesson Materials:**

- Examples of whole wheat kernels, bran, wheat germ, white and whole wheat flour
- Kitchen scale, white bread and whole wheat bread loaf
- MyPyramid Food Guide Chart at <http://www.mypyramid.gov/>
- Label Reading Chart
- Food labels with wording: “whole wheat”, “pumpernickel”, “stone ground” “multi-grain”
- Cereals for comparison: mini variety boxes such as: Mini-Wheats, Raisin Bran, Cheerios, Fruit Loops etc.
- Food items such as: snack crackers, popcorn, whole-wheat bagels, snack chips, cereal bars, pop tarts etc.
- Grain Game: 3 boxes or cones with signs that read “Germ”, “Bran” and “Endosperm”; masking tape to hold the signs to the boxes
- Strawberry Relay Race: 2 tables, 4 bowls, dry measuring cups, 1 box healthy sugarless bran type cereal, 2 spoons, 8 plastic or actual strawberries
- Recipe ingredients and equipment

## MUNCHIN'MANIACS

### Maniacs Go On the Road Recipes

#### WALKING NACHOS

Makes: 1 bowl of nachos

*Ingredients:*

- ¼ cup ground beef, cooked and drained
- 1 tablespoon taco dry seasoning mix
- ½ cup lettuce, shredded
- ¼ cup diced tomatoes
- ¼ cup reduced fat cheddar cheese
- 12 baked tortilla chips

*Directions:*

In a 12-ounce paper bowl, (plastic bowls will melt), place the following ingredients in order: cooked ground beef, 1-tablespoon taco seasoning mix, lettuce, tomatoes and cheese. Place tortilla chips around the edge of the bowl. Eat immediately.

Serving: 1 recipe

Nutrition Analysis per serving: Calories 269 kcal, Protein 15 g, Fat 7 g, Carbohydrates 34 g, Fiber 3 g, Calcium 122 mg, Sodium 345 mg

#### Walking Nachos Shopping List-10 Participants Yield: 10 nachos

Ingredients	Purchase	Individual
Hamburger	1 ½ pounds	¼ cup
Lettuce	1 head	½ cup
Tomatoes, diced	1 ½ lbs	¼ cup
Taco seasoning	2 packages	1 teaspoon
Cheddar cheese, grated	10 ounces	¼ cup
Tostitos chips, scoops	2 bags	12 chips

\*Arrange workstations so individuals can measure each ingredient and place in a 12-ounce paper bowl.

**Equipment: (Work Group: 1 participant)**

- |                   |                                       |
|-------------------|---------------------------------------|
| 10 plastic knives | 5 cutting boards                      |
| *electric skillet | 6 large bowls                         |
| *slotted spoon    | 10 (12 ounce) paper bowls             |
| paper towels      | measuring cups (1- ½ cups; 3- ¼ cups) |
| 2 spatulas        | measuring spoons (1-1 tablespoon)     |

\*If electricity is not available, prepare ground beef ahead and keep at 140°F until serving.



## MIDDLE OF THE ROAD MANIACS

Makes: 3 stuffed celery sticks

### *Ingredients:*

1 stalk (approximately 9" long) celery  
1 tablespoon light cream cheese or peanut butter  
1 tablespoon chopped peanuts  
6 animal crackers

### *Directions:*

Wash celery and trim off white celery stalk base and leafy top. Using a knife, fill the center of the celery with cream cheese or peanut butter. Sprinkle on the chopped nuts. Place the filled celery stalk on the cutting board and cut into 3 equal pieces. Push two animal crackers into the filling in each piece of celery. Serve immediately or store in refrigerator 1-2 days.

Serving: 1 celery stick

Nutrition Analysis per serving: Calories 42 kcal, Protein 1.6 g, Fat 2.

### **Middle of the Road Maniacs Shopping List-10 Participants Yield: 30 stuffed celery sticks**

<b>Ingredients</b>	<b>Purchase</b>	<b>Individual</b>
Celery stalks (9" long)	10	1
Peanut butter	10 tablespoons	1 tablespoon
Light cream cheese	10 tablespoons	1 tablespoon
Chopped peanuts	10 tablespoons	1 tablespoon
Animal crackers	60	6

### **Equipment: (Work Group: 1 participant)**

10 small paper plates  
10 plastic knives  
5 1-tablespoon measuring spoons  
paper towels



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