Whole Grains and Fiber

Child Care Provider's Training 2009
Whole Grain

- Whole Grain contains all 3 parts of the grain
1. Outer Bran Layer
   - Fiber
   - B vitamins
   - Minerals
   - Phytochemicals
2. Endosperm (largest portion)
   - Complex Carbohydrates
   - Protein
   - Smaller amounts of phytochemicals
3. Inside Germ
   - B vitamins
   - Vitamin E
   - Trace minerals
   - Unsaturated fats
   - Antioxidants
• Try it yourself
Phrases that Do Not Mean Whole Grain

• 100% Wheat
  – The only grain is wheat
• Multigrain
  – More than one kind of grain
• Stone Ground
  – The grain is coarsely ground
• Pumpernickel
  – Coarse dark bread made with rye and wheat flours
What to Look for on the Label

- 100% whole grain
- Whole wheat, (or other grain) is the first grain ingredient on the label
Health Benefits

• Reduces the risk of:
  – Bowel Disorders
  – Cancer
  – Heart Disease and High Cholesterol
  – Stroke
  – High Blood Pressure
  – Obesity
  – Type 2 Diabetes
Disease-fighting Antioxidants

• Whole grains can have antioxidant activity that is superior to some common vegetables, fruit, or white breads
• Some whole grain antioxidants act as tumor growth suppressants
How Much is Enough?

- DG 2005 recommends a minimum of 3 servings of whole grains per day
- **BUT** even choosing one serving/day compared to once/week or less, is beneficial for your heart and circulatory system
Fiber

- Soluble and Insoluble
- Insoluble may bind or dilute cancer causing materials
- May work with healthy bacteria to create a healthier colon which is resistant to cancer
Fiber

- Soluble fiber helps lower cholesterol levels
- Fiber absorbs water and swells
- May require an extra glass or two of water as fiber intake increases
- 25 to 30 grams/day for adults
- Fiber slows passage of food reducing need for insulin
Why do some whole grain products have less fiber?

- Bran content (bran contains most of the fiber)
- Whole grain cereals (shredded wheat) have less fiber than bran cereals (All Bran).
- The whole grain includes the endosperm (white flour) and germ as well as the fiber-rich bran. So there's less room for the bran.
Why do some whole grain products have less fiber?

• Sugar
• The added sugar in a cereal like Honey Nut Cheerios takes the place of some of the whole grain.
• The less grain, the less fiber
Why do some whole grain products have less fiber?

• How dense
• Some cereals are less dense than others. Puffs (like Puffed Kashi) and flakes (like Grape-Nuts Flakes) have less fiber than denser cereals (like Grape-Nuts or All-Bran)
• A serving of dense cereal contains more cereal
Take Home Messages

• Look for products that are whole grain and high in fiber (3-5 grams or more/serving)
• Bran cereals and wheat germ are not whole grain BUT contain many nutrients missing in refined grains
• Minimize sugar—it doesn't just threaten children’s teeth. It also replaces some of the whole grain they could be eating.
Take-Home Messages

• Reading the food label/ingredients list will help you identify whole grains
• Make changes gradually to add more whole grains to children’s diets
• Experiment with different whole grains with your children
• Use whole grains for snacks— popcorn, whole grain crackers, whole grain muffins/cookies