

Whole Grains And Whole Grain Rich



Whole Grains for Health

According to the USDA, “CACFP provides aid to child care institutions...for the provision of nutritious foods that contribute to the wellness, healthy growth, and development of young children.”



Agenda

- ✓ The Grains Group – what and why
 - ABCs
 - CACFP Guidance & Proposed Changes
 - Label Reading Savvy
 - Adding Whole Grains
 - FAQs



Foods in the Grains Group:

- Food made from wheat, rice, oats, cornmeal, barley, or another cereal grain
- **Examples:** bread, pasta, oatmeal, breakfast cereals, tortillas and grits

Not potatoes!



Grains are Essential

- Grains, especially whole grains, provide health benefits and carbohydrates for energy
- Whole grains as part of a healthy diet may reduce risk of some chronic diseases
 - e.g. heart disease



Nutrients

- Whole grains are important sources of many nutrients, including...
 - Dietary fiber
 - B vitamins
 - Iron
 - Magnesium
 - Selenium



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ABC's of Grains

Two Types

- Whole grains
- Refined grains



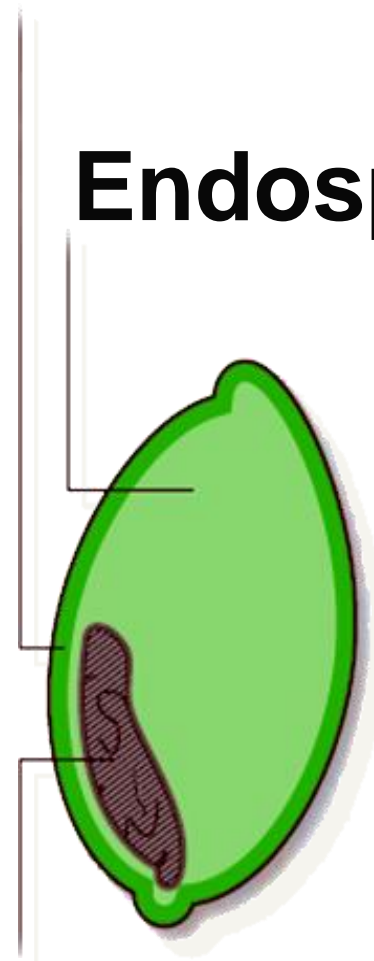
Whole grains contain the entire grain: bran, endosperm & germ

Examples:

- Oatmeal
- Brown rice
- Whole wheat flour

Bran

Endosperm



Germ

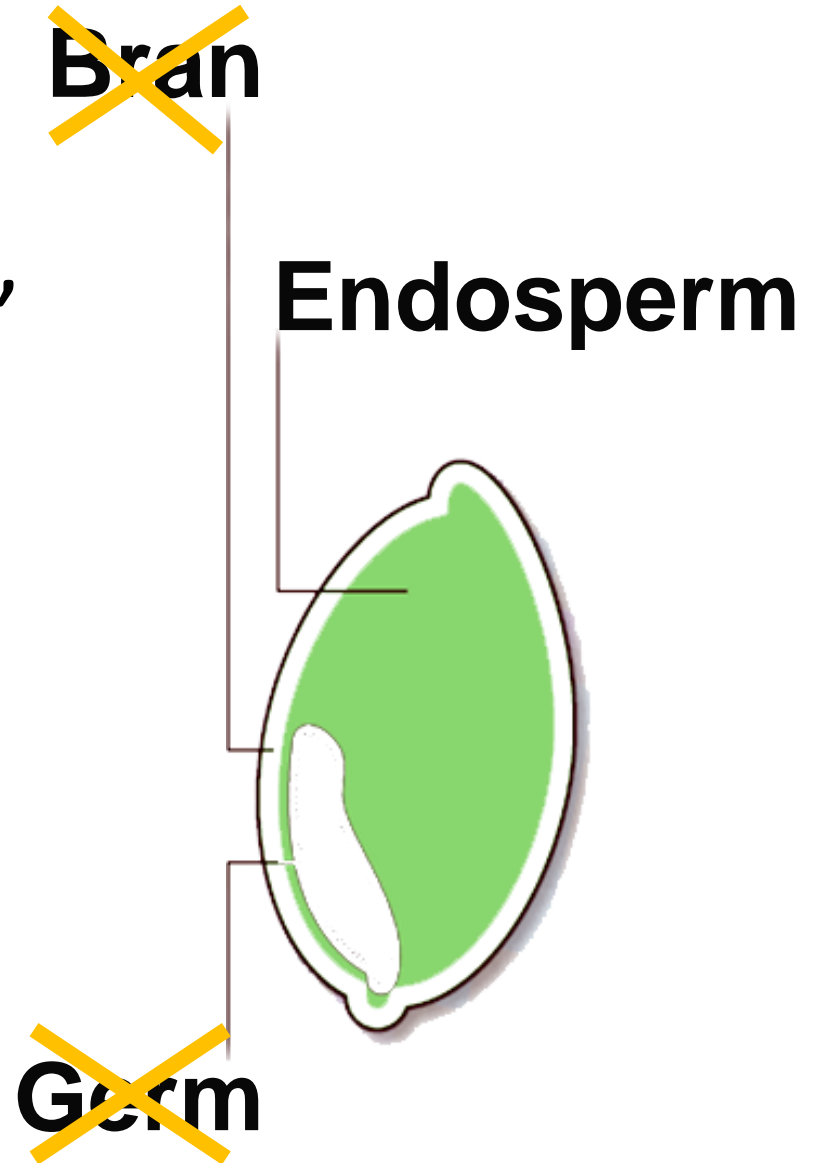


Only endosperm

Lose B-vitamins, iron,
fiber

Examples:

- White flour
- White bread
- White rice



Nutrient Comparison

| | Bran: fiber & B vitamins | Germ: vitamin E, B vitamins & antioxidants | Endosperm: energy, carbohydrates & protein |
|--------------------------|---|---|---|
| Whole grain | X | X | X |
| Refined grain | | | X |



Quiz Time!

What are whole grains?

1. Grains that are darker in color.
2. Grains that are low in carbohydrates.
3. Grains that contain the bran, germ and endosperm.
4. Grains that have been fortified.
5. Both “1” and “3”.



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CACFP Guidelines

- Grains and breads must be enriched **OR** whole-grain or made from enriched or whole-grain meal or flour.
- Ready-to-eat breakfast cereals must be enriched, whole-grain, or fortified.



[NEBRASKA DEPARTMENT OF EDUCATION](http://www.ednet.edu)

Photo source: USDA SNAP-Ed Connection Photo Gallery

Recommendations:

- At least half whole grain
- Limit grains high in solid fats, added sugar and sodium
 - Donuts
 - Toaster pastries
 - Sugary breakfast cereals



WEIGHT TABLE FOR GRAINS/BREADS

Some of the following foods, or their accompaniments, may contain more sugar, salt and/or fat than others. This should be a consideration when deciding how often to serve them.

| Group A | Minimum Serving Size for Group A |
|---|--|
| Breading type coating Bread sticks - hard Chow mein noodles Crackers - saltines and snack crackers Croutons Pretzels - hard Stuffing - dry (weights apply to bread in stuffing) | 1 serving = 20 gm or 0.7 oz 3/4 serving = 15 gm or 0.5 oz 1/2 serving = 10 gm or 0.4 oz 1/4 serving = 5 gm or 0.2 oz |
| Group B | Minimum Serving Size for Group B |
| Bagels Batter type coating Biscuits Breads - white, wheat, whole wheat, French, Italian Buns - hamburger, hotdog Crackers - graham (all shapes), animal crackers Egg roll skins English muffins Pita bread - white, wheat, whole wheat Pizza crust Pretzels - soft Rolls - white, wheat, whole wheat, potato Tortillas - wheat or corn Tortilla chips - wheat or corn Taco shells | 1 serving = 25 gm or 0.9 oz 3/4 serving = 19 gm or 0.7 oz 1/2 serving = 13 gm or 0.5 oz 1/4 serving = 6 gm or 0.2 oz |
| Group C | Minimum Serving Size for Group C |
| Cookies * - plain Cornbread Corn muffins Croissants Pancakes - purchased Pie crust - dessert pies*, fruit turnovers*, meat/meat alternate Waffles - purchased | 1 serving = 31 gm or 1.1 oz 3/4 serving = 23 gm or 0.8 oz 1/2 serving = 16 gm or 0.6 oz 1/4 serving = 8 gm or 0.3 oz |
| Group D | Minimum Serving Size for Group D |
| Doughnuts ** - cake and yeast, raised, unfrosted Granola bars ** - plain Muffins - all except corn Sweet roll ** - unfrosted Toaster pastry ** - unfrosted | 1 serving = 50 gm or 1.8 oz 3/4 serving = 38 gm or 1.3 oz 1/2 serving = 25 gm or 0.9 oz 1/4 serving = 13 gm or 0.5 oz |

| Group E | Minimum Serving Size for Group E |
|---|--|
| Cookies * - with nuts, raisins, chocolate pieces and/or fruit purees Doughnuts ** - cake and yeast, raised, frosted or glazed French toast Grain fruit bars ** Granola bars ** - with nuts, raisins, chocolate pieces and/or fruit Sweet rolls ** - frosted Toaster pastry ** - frosted | 1 serving = 63 gm or 2.2 oz 3/4 serving = 47 gm or 1.7 oz 1/2 serving = 31 gm or 1.1 oz 1/4 serving = 16 gm or 0.6 oz |
| Group F | Minimum Serving Size for Group F |
| Cake * - plain, unfrosted Coffee cake ** | 1 serving = 75 gm or 2.7 oz 3/4 serving = 56 gm or 2 oz 1/2 serving = 38 gm or 1.3 oz 1/4 serving = 19 gm or 0.7 oz |
| Group G | Minimum Serving Size for Group G |
| Brownies * - plain Cake * - all varieties, frosted Cereal bars * | 1 serving = 115 gm or 4 oz 3/4 serving = 86 gm or 3 oz 1/2 serving = 58 gm or 2 oz 1/4 serving = 29 gm or 1 oz |
| Group H | Minimum Serving Size for Group H |
| Barley Breakfast cereals *** - cooked Bulgur or cracked wheat Macaroni - all shapes Noodles - all varieties Pasta - all shapes Ravioli - noodles only Rice - enriched white or brown | 1 serving = 1/2 cup cooked or 25 gm dry (0.9 oz) 1/2 serving = 1/4 cup cooked or 13 gm dry (0.5 oz) |
| Group I | Minimum Serving Size for Group I |
| Breakfast cereal *** - dry | 1 serving = 3/4 cup or 1 oz, whichever is less |

* Snack only

** Breakfast or Snack only

*** Refer to Food Chart for appropriate serving size served to children ages 1 through 5 and adult participants in CACFP.

Proposed Changes

- At least one serving daily must be whole grain rich

What is whole grain rich?

- 8 grams or more whole grains per serving

OR

- Has FDA whole grain claim on packaging

OR

- Ingredient list has “whole” grain first



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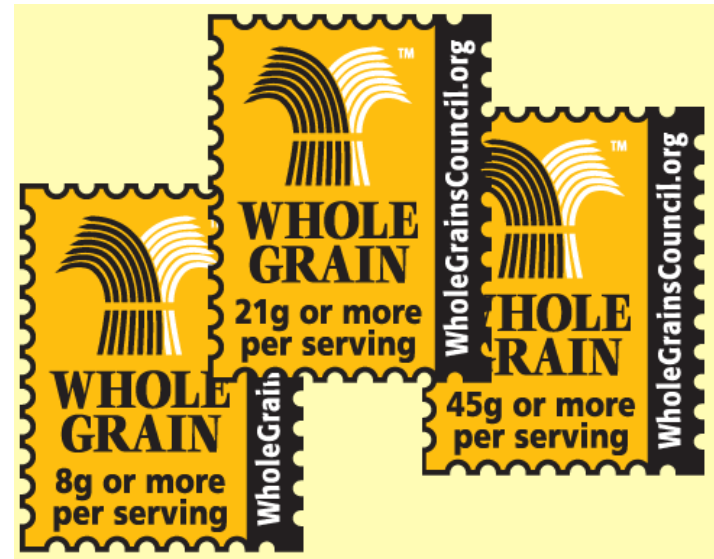


Label Reading Savvy



Whole Grain Stamp

Basic Stamp:
At least 8g (1/2
serving) of
Whole Grains



**EAT 48g OR MORE OF
WHOLE GRAINS DAILY**



NEBRASKA DEPARTMENT OF EDUCATION

Source: wholegrainscouncil.org

Whole Grain Stamp

100% Stamp:
NO refined grain
AND
at least 16g
(1 serving) of Whole
Grains



**EAT 48g OR MORE OF
WHOLE GRAINS DAILY**



Ingredient lists for whole grains

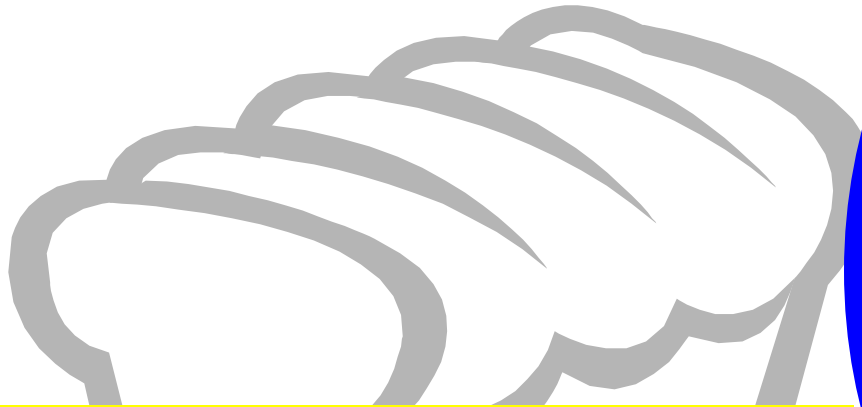
- Labels aren't always truth tellers
- Ingredients lists tell the whole story

Ingredients: whole grain **wheat** flour, sugar, soybean oil, cornstarch, malt syrup (from corn and barley), salt, invert sugar, leavening (calcium phosphate and/or baking soda), vegetable color (annatto extract, turmeric oleoresin).



Which bread is whole grain?

A



Wheat flour, water,
high fructose corn syrup,
molasses, wheat bran ...

B



Whole wheat flour, water,
brown sugar ...



FDA Whole Grain Health Claim

“Diets rich in whole grain foods and other plant foods and low in total fat, saturated fat and cholesterol may reduce the risk of heart disease and some cancers.”

Examples:

Cheerios cereal

Quaker Oatmeal



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Quiz Time!

Which indicates whole grain?

1. Stoneground
2. Unbleached
3. Multigrain
4. Wheat
5. All of the above
6. None of the above



Color: Who Cares?

- Color is not an indication of a whole grain
- Bread can be brown because of molasses or other added ingredients
- Read the ingredient list to see if the grain is a whole grain



Nutrition Facts Labels: Dietary Fiber

| Nutrition Facts | |
|-------------------------------|----------------------|
| Serving Size 1 slice (34g) | |
| Servings Per Container 108 | |
| Amount Per Serving | |
| Calories 90 | Calories from Fat 15 |
| %Daily Value* | |
| Total Fat 1.5g | 2 % |
| Saturated Fat 0g | 0 % |
| Trans Fat 0g | |
| Cholesterol 0mg | 0 % |
| Sodium 140mg | 6 % |
| Total Carbohydrate 16g | 5 % |
| Dietary Fiber 1g | 0 % |
| Sugars 2g | |
| Protein 2g | |
| Vitamin A 0% | • Vitamin C 0% |
| Calcium 0% | • Iron 6% |

* Percent Daily Values are based on a 2,000 calorie diet.

| Nutrition Facts | |
|-------------------------------|----------------------|
| Serving Size 1 slice (50g) | |
| Servings Per Container 15 | |
| Amount Per Serving | |
| Calories 140 | Calories from Fat 30 |
| %Daily Value* | |
| Total Fat 3g | 5 % |
| Saturated Fat 0.5g | 3 % |
| Trans Fat 0g | |
| Cholesterol 0mg | 0 % |
| Sodium 340mg | 14 % |
| Total Carbohydrate 24g | 8 % |
| Dietary Fiber 3g | 14 % |
| Sugars 0g | |
| Protein 4g | |
| Vitamin A 0% | • Vitamin C 0% |
| Calcium 2% | • Iron 8% |

* Percent Daily Values are based on a 2,000 calorie diet.

- Dietary fiber not always indication of whole grain content

Quiz Time!

Which is always a whole grain?

1. Barley
2. Oatmeal
3. Enriched wheat flour
4. 100% wheat bread
5. All of the above
6. None of the above



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Whole Grains for Breakfast

- Whole wheat toast, pancakes, waffles
- Mix 'n match whole grain cereals
- Oatmeal
 - add apples, berries, bananas, nut butter



Whole Grains for Lunch/Dinner

- Whole grain pastas
- Brown rice and/or barley
 - Add to meatballs
 - Add to soups, stews
 - Serve plain and sprinkle with shredded cheese
- Whole wheat black bean and cheese quesadillas



Whole Grain Snacks

- Whole grain tortilla chips
- Whole grain pretzels (unsalted)
- Whole grain dry cereal

- Whole grain mini bagel pizzas

- Brown rice pudding



Snack mix



White Whole Wheat Flour

- Lighter in color, sweeter taste than regular whole wheat flour
- Same fiber content, vitamins and minerals
- Reduce by 1 tablespoon for each cup of flour recipe calls for



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Whole Grain FAQ's



What is gluten and is a gluten-free diet good for you?



Gluten

- A protein in wheat, rye & barley
- Elasticity & shape to baked goods
- Helps dough rise
- Chewy texture
- Added to some foods
 - Modified food starch
 - Gravies, dried fruits, caramel color, processed cheese, processed meat



Celiac Disease or Gluten Sensitivity?

- Celiac Disease
 - Autoimmune reaction to gluten
 - Damage & inflammation to lining of GI tract
 - Poor nutrient absorption = malnutrition
 - Symptoms: GI discomfort, rash, joint pain, tingling
- Non-Celiac gluten sensitivity
 - No immune system reaction
 - Less GI damage
 - Symptoms: headache, numbness



Gluten-free?

Only for participants with:

- Gluten sensitivity/intolerance
- Celiac Disease

Remember a **Gluten-Free** means:

- The elimination of several foods or an entire food group
- Unless **medically necessary**, gluten should NOT be removed - nutrient deficiencies could occur



It seems like a lot of whole grains are very expensive. Are there any low-cost options?



Lower Cost Whole Grain Options

- Brown rice
- Oatmeal
- Store brand dry whole grain cereals
- Buy day-old or on sale whole-grain bread (use quickly or freeze them)
- Frozen whole grain bread dough



Should I be purchasing
organic whole grains?



Organic

- Personal preference
- No scientific evidence to support higher nutrients density than non-organic counterparts



Resources

- Understanding the food label, J. Anderson, L. Young and S. Perryman, <http://www.ext.colostate.edu/pubs/foodnut/09365.html>
- <http://www.cookinglight.com/eating-smart/nutrition-101/whole-grain-food-labeling>
- <http://www.choosemyplate.gov/food-groups/grains-why.html>
- Williams, C.L., & Bollella, M. (1995). Is a high-fiber diet safe for children? *Pediatrics*, 96(5), 1014-1019.
- Williams, C.L., Bollella, M., & Wynder E.L. (1995). A new recommendation for dietary fiber in childhood. *Pediatrics*, 96(5), 955-985.
- <http://www.mayoclinic.com/health/food-and-nutrition/NU00197/NSECTIONGROUP=2>
- A.D.A.M. Medical Encyclopedia (2010). <http://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0001280/>



Questions?
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