In the News
Whole Grains

Jessica LaRoche, MS, RD, CD

January 25, 2012

Overview

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- Definition of whole grain
- Health benefits
- Reasons for health benefits
- Sources of whole grain
- Identifying whole grain products
- Recommended servings
- Serving Sizes
- Whole grain stamp
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Whole Grain Fiber, Colorectal Cancer Risk Linked

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By John Gever, Senior Editor, MedPage Today
Published: November 10, 2011
Reviewed by Dori F. Zaleznik, MD; Associate Clinical Professor of Medicine, Harvard Medical School, Boston and Dorothy Caputo, MA, RN, BC-ADM, CDE, Nurse Planner

FEEDBACK

Individuals eating three daily servings of whole grains had a significantly, though modestly, lower risk of colorectal cancer, according to pooled data from nearly 800,000 individuals -- perhaps the largest and strongest analysis ever conducted.

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Antioxidants Abound in Cereals, Popcorn, Whole-Grain Snacks

August 19, 2009

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TUESDAY, Aug. 18 (HealthDay News) — Eating a bowl of your favorite cereal every day is a great source of natural antioxidants, new research shows.

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Sifting through the facts about whole grains
What does 'cracked wheat' mean? Is your cereal really the best source of whole grains? Nutritionist Joy Bauer breaks down the food labels
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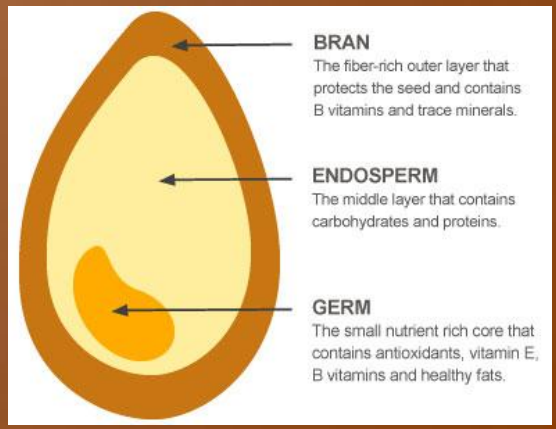
What is a whole grain?

- Whole grains are the entire seed of the grain plant
- This seed (or kernel) is made up of 3 parts:
  - **Bran:** Tough outer layer that contains fiber, antioxidants, and B vitamins
  - **Germ:** Core of the kernel that contains B vitamins, protein, healthy fat (oils), antioxidants, and fiber
  - **Endosperm:** Starchy middle layer that provides mostly carbohydrate and some protein

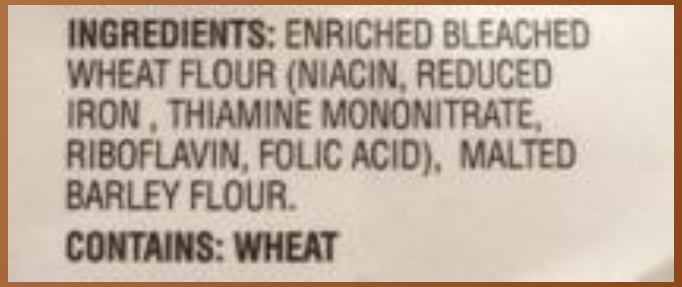


Refined Grains

- Refined grains and products usually have the **bran** and **germ** removed
  - This means refined grains usually contain **only** the endosperm
- Refined grains are commonly finer in texture than whole grains
- Removing the germ and bran also removes most of the fiber, B vitamins, minerals, antioxidants, and healthy fats
- Sources of refined grains: white pasta, white bread, white rice, snack cakes, many crackers

Enriched Grains

- Most refined grains are enriched
  - B vitamins (folic acid, niacin, riboflavin, and thiamin) and iron are added back
  - Fiber and phytochemicals are not added to enriched, refined grain products



Health Benefits: Cardiovascular Disease

- Eating whole instead of refined grain products substantially lowers total and LDL (bad) cholesterol, triglycerides, blood pressure and insulin levels
- Observational studies (cause/effect cannot be established)
  - Nurse's Health Study
    - Women who ate 2-3 whole grain servings daily were 30% less likely to have a heart attack or die from heart disease over a 10-year period than women who ate less than 1 serving per week
  - Meta-analysis of seven major studies
    - CVD 21% less likely in those who ate 2.5 servings of whole grain foods daily than those who ate less than 2 servings per week

Harvard School of Public Health

Reasons for Cardiovascular Benefits

- Not fully understood
- Possible mechanisms:
  - Soluble fiber in whole grains can help lower cholesterol
  - Fiber may also help activate the body's natural anticoagulants and help prevent small blood clots that can lead to stroke and heart attack
  - Antioxidants can help prevent oxidation of LDL (which leads to plague buildup in arteries)

Health Benefits: Type 2 Diabetes

- Whole grains play a role in reducing the risk of Type 2 diabetes and maintenance of blood glucose levels
  - Study of more than 160,000 women followed for up to 18 years found those who averaged 2-3 servings of whole grains per day were 30% less likely to develop Type 2 diabetes than those who rarely ate whole grains
  - Swapping white rice for whole grains can lower your diabetes risk:
    - Those who ate the most white rice (5 or more servings per week) had a 17% higher risk of developing diabetes than those who ate white rice less than one time per month
    - Those who at the most brown rice (2 or more servings per week) had 11% lower risk of diabetes than those who rarely ate brown rice

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Reasons for Diabetes Benefits

- Whole grain components are believed to contribute to lower Type 2 diabetes risk and blood glucose control
  - Fiber
  - Magnesium
  - Selenium
  - Copper
  - Manganese

Health Benefits: Cancer

- Studies on cancer risk and whole grain consumption have been mixed (some show a benefit, some do not)
  - The NIH-AARP Diet and Health Study looked at 500,000 men and women over a 5-year period
    - Higher whole grain consumption lowered the risk of developing colorectal cancer

Reasons for Cancer Benefits

- Variety of proposed mechanism:
  - Fiber and resistant starch ferment in the colon, increasing beneficial bacteria and decreasing transit time
  - Antioxidants help protect against oxidative damage
  - Phytoestrogens may help protect against some cancers (hormone-dependent)

Health Benefits: Weight Management

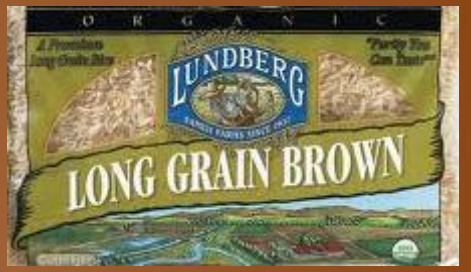
- Research suggests that eating whole grains can contribute to achieving and maintaining a healthy weight
  - A 12-year study in the *American Journal of Clinical Nutrition* found that women who consumed more whole grains consistently weighed less than women who consumed fewer whole grains
  - In men, whole grain and bran intake were independently linked to less weight gain

Reasons for Weight Benefits

- Fiber in whole grains promotes:
  - Increased satiety with lower calorie intake
  - Prolonged gastric emptying
    - Feel full longer
    - Reduce glucose response and insulin demand

Common Sources of Whole Grains

- Whole wheat flour
- Brown rice
- Wild Rice
- Quinoa
- Oats
- Corn (and popcorn)
- Barley
- Rye
- Amaranth

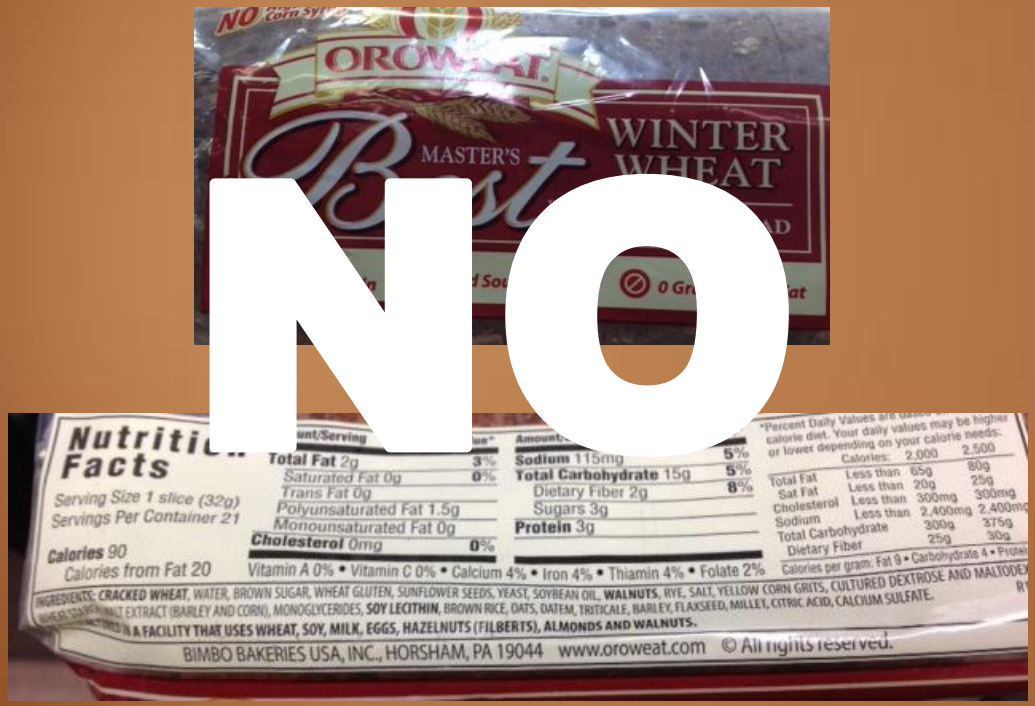


How to Identify Whole Grain Products

- Read food labels and check **ingredient lists**
- One of the first ingredients should be “whole” grain (wheat, rye, barley, etc) or oats
- The following terms are NOT necessarily whole grain
  - Wheat flour
  - Cracked wheat
  - Multigrain
  - Stone-ground wheat

Does this product provide a good source of whole grains?

Oroweat Winter Wheat Bread



NO

Ingredients: Cracked wheat, water, brown sugar, wheat gluten…

Oroweat Nutty Grain

YES

Ingredients: Whole wheat flour, unbleached enriched wheat flour…

Does this product provide a good source of whole grains?

Wheat Thins Original

YES

INGREDIENTS: WHOLE GRAIN WHEAT FLOUR, SOYBEAN OIL, SUGAR, CORNSTARCH, MALT SYRUP (FROM CORN AND BARLEY), SALT, INVERT SUGAR, LEAVENING (CALCIUM PHOSPHATE AND/OR BAKING SODA), VEGETABLE COLOR (ANNATTO EXTRACT, TURMERIC OLEORESIN).

BHT ADDED TO PACKAGING MATERIAL TO PRESERVE FRESHNESS

CONTAINS: WHEAT.

Wheatables Toasted Honey Wheat

NO

INGREDIENTS: ENRICHED FLOUR (WHEAT FLOUR, NIACIN, REDUCED IRON, THIAMIN MONONITRATE [VITAMIN B_1], RIBOFLAVIN [VITAMIN B_2], FOLIC ACID), PARTIALLY HYDROGENATED SOYBEAN AND/OR COTTONSEED OIL† WITH TBHQ FOR FRESHNESS, STONE GROUND WHOLE WHEAT FLOUR, SUGAR, HONEY, HIGH FRUCTOSE CORN SYRUP, TOASTED WHOLE GRAIN WHEAT, SALT, CONTAINS TWO PERCENT OR LESS OF MALT EXTRACT, NATURAL FLAVOR, LEAVENING (BAKING SODA, SODIUM ACID PYROPHOSPHATE, MONOCALCIUM PHOSPHATE), CARAMEL COLOR, SOY LECITHIN.
†LESS THAN 0.5g *TRANS* FAT PER SERVING.

CONTAINS WHEAT AND SOY INGREDIENTS.

Recommended Whole Grain Intake

- According to the 2010 Dietary Guidelines for Americans, at least ½ of your total grain intake should be whole grains
  - For most adults, this is at least 3-oz equivalents of whole grains daily (at least 48 grams of whole grain)
- Less than 5% of Americans consume the recommended minimum amount of whole grains
- On average, Americans eat less than 1-oz equivalent of whole grains each day

What counts as 1-oz equivalent of whole grains?

- 1 1-ounce slice of 100% whole grain bread
- ½ cup cooked brown rice, quinoa, or other whole grain
- ½ cup cooked 100% whole grain hot cereal, like oatmeal
- ½ cup cooked 100% whole grain pasta
- 1 6” 100% whole grain (or whole corn) tortilla
- 1 ounce ready to eat 100% whole grain cereal
- 1 5” 100% whole grain pancake

*One serving of whole grains = 16 grams of whole grain ingredients

What about partly whole grain products?

- Some foods contain whole grains, but are not 100% whole grain
  - Crackers, some breads, some cereals, etc
- If a product contains 8 grams of whole grains per serving, it is considered a substantial amount of whole grains
- Look for products that have the first or second ingredient as a whole grain
- But there is not an easy way to determine the grams of whole grain per serving…

Whole Grain Stamp

- Quick and easy way to identify whole grain products
- Identifies foods that have at least 8 grams of whole grains per serving
- One full serving of whole grains is 16 grams
  - If the stamp says 100% whole grain, it contains 16 grams per serving

Using the Whole Grain Stamp

- Eat three servings of foods with the 100% whole grain stamp each day
  - 1 slice Oroweat 100% Whole Wheat
  - 2 Kashi 7 Grain Waffles
  - 1 cup Cheerios
- Eat six servings of foods with ANY whole grains stamp
  - 1 slice Oroweat Health full Nutty Grain
  - 1 Cascadian Farm Chewy Chocolate Chip Granola Bar
  - ¾ cup Barbara's Hole n' Oats Cereal

Recommendations for Customers

- We carry a large variety of whole grain products at Harmons
- Help customers with questions about whole grains
  - Help identify whole grains (brown rice, quinoa, etc)
  - Help locate partly whole grain foods (bread, crackers, etc)
  - Help educate about Whole Grain Stamps and what they mean
- For more specific questions about individual whole grain needs, please direct to Jessica or Jonnell
  - jessicalaroche@harmonsgrocery.com
  - jonnellmasson@harmonsgrocery.com

Thank you!
Questions??

Jessica LaRoche

801-928-2634