



# Kernels

September 2012

Do Carbohydrates and  
Wheat Make You Fat?



"Going  
Grainular"



Flour 101



PLUS  
Whole Grains  
Recipes: Souper Suppers  
Wheat Safari



Wheat Foods Council  
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## A word from Judi Adams

What comes to mind when you think about the time between September and December? Back to school, back to work, traditional holidays like Halloween, Thanksgiving and Christmas?

Well, this year, think grains. That's right, grains. That's because during the fourth quarter of 2012 the US Department of Agriculture's Center for Nutrition Policy and Promotion (CNPP) will be focusing on the Dietary Guidelines message, "make at least half your grains whole." The Wheat Foods Council has been working with others in the "grain chain" since last spring to develop ideas for some exciting ways to help get the message out to consumers about the importance of grains, both whole and enriched. To learn more, read the article on the next page.

Registered dietitian and author Victoria Shanta Retelny contributes an article about the health benefits of grains, with some practical tips on ways to work more grains into your daily diet.

As a leading source of science-based information on wheat and grain foods nutrition, the Wheat Foods Council is always working to provide the most accurate information about wheat foods and the diet. To that end, I'll address some of the current myths and misinformation appearing in the media and elsewhere about wheat and carbohydrates.

With the return of cooler weather in most parts of the country, we'll tempt your taste buds with two delicious, hearty soups: Mixed Bean Soup, featuring a trio of beans paired with pasta, and Onion Soup Gratinée, the classic favorite cupped in individual bread bowls.

Finally, add to your baking expertise with our primer on the different kinds of flour and their uses.

Enjoy!

Judi Adams, MS RD,  
President, Wheat Foods Council

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# Wheat Foods Council: Going "Grainular"

The Dietary Guidelines for Americans (DGA) message, "make at least half your grains whole," will be in the spotlight this fall as part of the US Department of Agriculture's Center for Nutrition Policy and Promotion's (CNPP) outreach to help more Americans eat healthfully. Since the release of the 2010 DGAs, CNPP has focused on a different health message each quarter. The timing for the grains messaging is perfect given that September is National Whole Grains Month, October is National Pasta Month, November is National Bread Month, and December has grain foods at the heart of many holiday traditions.

The Wheat Foods Council is joining with CNPP, as well as other members of the "Grain Chain" – the American Bakers Association, Grain Foods Foundation, National Pasta Association, USA Rice, and corporate members General Mills and Kellogg's – to help get the word out. Our strategic approach involves working collectively as well as individually to amplify the overarching message with the common theme of helping consumers incorporate whole grains at each meal. We'll also be stressing the need for women of child-bearing age to eat sufficient enriched grains for folic acid, which plays a critical role in helping prevent neural tube defects.

For our solo activity, WFC will be launching our "Half 'N Half" campaign featuring a CD for distribution to registered dietitians, health professionals and other message multipliers. Half of the CD will be devoted to whole grain recipes, with the other half enriched grain recipes. The CD will also be loaded with creative meal tips, nutrition information about wheat and grains, sample Tweets on whole and enriched grains, and backgrounders on wheat and flour. The campaign officially launches in October at the Academy of Nutrition and Dietetics (AND) Food and Nutrition Conference and Exposition (FNCE) so be sure to stop by for your copy at booth #1067. Information featured on the CD will also be downloadable from the Wheat Foods Council website.

WFC has also worked with CNPP to develop a series of consumer-oriented videos on such topics as whole grains for breakfast, budget-friendly whole grains, and whole grains for the whole family. These will be featured on the MyPlate.gov website during the September-December timeframe as well as on the Wheat Foods Council website and the websites of other Grain Chain partners.





# The Whole (Grain) is Greater Than the Sum of Its Parts



Victoria Shanta Retelny, RD, LDN

The health benefits of whole grains are public knowledge, however, only about 1 percent of Americans adhere to the 2010 Dietary Guidelines for Americans' (DGAs) recommendation of "make at least half of your grains whole grains" – or at least three servings of whole grains a day. So what are Americans eating? According to the United States Department of Agriculture's Economic Research Service in 2009, whole grains only make up 12 percent of U.S. food consumption. How can we change American eating patterns to include more whole grains?

The whole grain, which includes the starchy endosperm, germ and bran layers, offers a myriad of health benefits – from weight management, to acting as a high-fiber defense in diet-related chronic diseases, including diabetes, heart disease and certain cancers such as breast and colorectal cancers. Plus, nutrition science has shown a link between soluble fiber found in whole grains and keeping cholesterol levels in a healthy range, as well as insoluble fiber keeping the colon functioning smoothly. The combination of both types of fiber keep blood sugar levels stable throughout the day and are satiating on fewer calories, which helps with long-term weight management.

The Dietary Guidelines for Americans (DGA) and its MyPlate icon emphasize that approximately a quarter of a person's plate should consist of foods from the Grains Group – whole grains, as well as enriched grain products – a clear reflection of the prominent role they play in daily nourishment. In every cultural background, grains have an important seat at the dinner table.

Here are some handy ways to incorporate grains into your day – and remember to make whole grains at least half of them:

- Wrap a handful of arugula with two slices of tomato and avocado (if you like a kick add a hint of giardiniera, a hot and tangy relish of pickled pepper and jalapeno) into a whole wheat tortilla for lunch.
- Use hard white whole wheat flour, or half enriched flour and half whole wheat flour in baked goods.
- Spread a tablespoon of hummus into a whole wheat pita and stuff with two small falafels, cucumbers, tomato and drizzle of tzatziki for a delicious Mediterranean-style meal.

Or try this simple pasta recipe for dinner or as a side dish. It features whole wheat spaghetti flavored with a bit of red pepper and balanced with hints of citrus and garlic.

## Spicy Spaghetti with Garlic Broccoli

**Yield: 4 servings**   **Serving size: 1/2 cup**   **Prep time: 5 minutes**   **Cook time: 15 minutes**

Each serving has: 184 calories, 6 g protein, 27 g carbohydrates, 7 g total fat (1 g saturated), 5 g fiber, 2 g sugars, 0 mg cholesterol, 19 mg sodium, 7 mg iron

### Ingredients:

12 ounces whole wheat spaghetti, dry  
1 medium crown of broccoli, chopped  
1 large lemon, juiced  
2 garlic cloves, minced  
1/2 tsp red pepper flakes  
2 tbs extra-virgin olive oil  
A pinch of salt

### Instructions:

Cook pasta in a pot of boiling water according to instructions on the package (about 10 minutes), then drain well and return to the pot.

Steam broccoli over boiling water (in a steamer pot, if you have one; otherwise, place a colander in the pot and cover).

When broccoli is bright green and slightly tender, remove from heat.

(Overcooking the broccoli will make it mushy, so keep a close eye on it.)

Toss broccoli into the pasta and add lemon juice, garlic cloves, red pepper flakes, and olive oil.

Season with salt to taste.

Recipe courtesy of *The Essential Guide to Healthy Healing Foods* (Alpha Books/Penguin) by Victoria Shanta Retelny, RD, LDN.

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# Do Carbohydrates and Wheat Make You Fat?

Judi Adams, MS, RD  
President, Wheat Foods Council

Do carbohydrates and wheat make you fat? If you believe in science, follow along and learn about all the research that proves otherwise.

Around the turn of the 20th century, wheat consumption averaged about 200 lbs. per person annually and we did not have an obesity problem. Last year, wheat consumption was about 131 pounds per person and we have the highest obesity rate in U.S. history. What do the following studies have in common?

- Center for Disease Control's (CDC) on-going National Health and Nutrition Examination Survey (NHANES)
- Nurses' Health Study
- Nurses' Health Study II
- Women's Health Study
- Prostate, Lung, Colorectal, and Ovarian Screening Study
- Health Professionals Follow-up Study
- Canadian National Breast Screening Study

They all show an **inverse** relationship between carbohydrate intake and body mass index which means that the higher percentage of carbohydrates consumed, the lower the weight. The actual body weight difference between high- and low-carbohydrate intake groups equaled 6 to 7 **fewer** pounds for the higher carbohydrate consumers<sup>1</sup>.

Some people claim eating wheat increases your appetite, but there is no scientific research to support that. One study shows that eating wheat has no effect on satiety (feeling full) or increased appetite<sup>1</sup> while several others show it actually enhances satiety and reduces caloric intake.<sup>3,8</sup> These studies are consistent with the large body of epidemiological evidence showing whole grain consumption (most of it in the U.S. is from wheat) is actually associated with healthier body weights.<sup>8-17</sup>

You might have heard that wheat and carbohydrates increase harmful belly fat. Not so. A recent study in the American Journal of Clinical Nutrition found the lowest amount of belly fat was associated with two servings per day of enriched grains and three servings per day of whole grains.<sup>18</sup> This pattern of consumption is consistent with the 2010 Dietary Guidelines for Americans which recommend the average consumer eat six one-ounce servings of grain foods daily with at least half being whole grains. Additionally, subjects consuming more than three servings of whole grains per day had 10% **less** abdominal fat than subjects who ate no whole grains.

Furthermore, if you don't eat wheat, you could increase your risk of not getting enough fiber, a nutrient of concern.

Also, because of folic acid fortification of enriched grains in 1998, neural tube birth defects, such as spina bifida, have decreased by 36 percent in the U.S. The CDC acknowledges that enriched grains, rather than supplements, are responsible for this achievement and in May 2011 named folic acid fortification as one of the top ten public health achievements of the last decade. This incredible health initiative has saved Americans \$4.7 billion in direct causes. All women of child-bearing age (including teenagers) should be consuming three servings of enriched grains daily and taking a folic acid supplement.

Approximately seven percent of Americans cannot eat wheat because it contains gluten. That small percentage

*They all show an inverse relationship between carbohydrate intake and body mass index ... the higher percentage of carbohydrates consumed, the lower the weight.*

includes approximately one percent who have celiac disease, an autoimmune disease, and six percent who have non-celiac disease gluten sensitivity. Celiac disease, while serious for those who have it, is actually lower in incidence than autism or diabetes. Going on a gluten-free diet when you don't need to risks trivializing the serious disease that celiac is. If you think you have celiac disease, get tested before going on a gluten-free diet or the test results will not be accurate.

You may have also heard that the wheat we consume today is different than the wheat our grandparents ate. There are no studies that show this is true for U.S. wheats.

Eating wheat is nutritious, and economical. Wheat forms the basis of some of our favorite foods so follow the science and enjoy!

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# Souper Suppers

## Onion Soup Gratinée In a Bread Bowl

Serves 4

### Ingredients:

2 large, sweet onions such as Vidalia, thinly sliced  
1 tablespoon butter  
1 cup dry white wine  
2 ¼ cups low sodium beef broth  
¾ cup apple cider  
Freshly ground black pepper  
4 4-inch hard rolls  
1 cup grated gruyere cheese

### Directions:

Melt butter in a large skillet over very low heat. Add the onions, sprinkle with salt and stir. Cover the skillet and let the onions cook very slowly until they have wilted completely, about 20 minutes. Remove the lid, stir the onions and let them cook another 20 minutes or so, stirring regularly until they become a deep caramel brown. Add white wine and turn the heat up to high. Let the wine boil until it is reduced to a syrup. Add the broth and cider, bring to a simmer, add pepper. Cover and keep it hot while you prepare the bread. Preheat the oven to 400 degrees F. Slice about 1 inch off the top of each roll and pull out the inside bread, making a bowl. Save the bread tops and inside for another use (crumbs or croutons). Set the rolls on a sheet pan and bake them for 5 minutes, until crispy and hot. Preheat the broiler. Have 4 shallow soup bowls ready. Ladle ¾ cup soup into each bread bowl and divide the gruyere among them, covering the edges of the bread. Broil until the cheese bubbles and browns, about 45 seconds. Be careful not to burn the bread. Lift each bread bowl with a spatula and set it into a soup bowl. Ladle the remaining soup around the bread and serve immediately.

Nutrition: Approximately 430 calories; 15 g total fat; 7 g saturated fat; 35 mg cholesterol; 470 mg sodium; 45 g carbohydrates; 3 g dietary fiber; 17 g protein; 104 mcg DFE (folate).  
Source: Wheat Foods Council



Photo for Wheat Foods Council by Renee Comet

## Mixed Bean Soup with Pasta

Serves 12

### Ingredients:

3 quarts vegetable stock  
1- 28 ounce can crushed tomatoes in puree  
1- 15 ounce can black beans, drained  
1- 15 ounce can garbanzo beans, drained  
1- 15 ounce can kidney beans, drained  
2 medium carrots, trimmed, scrubbed and cut into 1/2-inch dice  
2 medium stalk celery ribs, washed and cut into 1/2-inch dice  
¾ cup onion, peeled and chopped  
1 small green bell pepper, cored and cut into 1/2-inch dice  
1 small red bell pepper, cored and cut into 1/2-inch dice  
8 cloves garlic, chopped  
1 teaspoon ground oregano  
1 teaspoon thyme  
1 teaspoon rosemary  
1 teaspoon basil  
1 cup dry pasta, Penne or Rotini  
3 tablespoons balsamic vinegar  
pepper to taste

### Directions:

TIP: To lower the sodium content of this soup either purchase unsalted beans, or simply rinse the canned beans thoroughly before using. You can also purchase unsalted vegetable stock and tomatoes. As you can see by the recipe we have not ADDED any salt; only herbs and pepper as our seasonings.

In large soup pot combine everything except pasta, vinegar, and black pepper; bring to a boil over high heat; reduce heat to low and simmer, partially covered until carrots are tender crisp, stirring occasionally.

Add pasta and cook until tender, about 10 minutes.

Stir in vinegar and season with pepper. Serve in warm bread bowls.

Nutrition: Approximately 164 calories; 8 g protein, 32 g carbohydrates, 9 g fiber, 2 g fat (0 g saturated), 0 mg cholesterol, 41 mcg folate, 3 mg iron, 613 mg sodium (which could be reduced by following the TIP in the directions section).

Source: Wheat Foods Council



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# Wheat Growers Corner

## Flour 101

If you want to flex your baking muscles, think flour – there's a lot more than "all-purpose" out there. Many of the flours listed below can be found in the baking aisle of your favorite grocery store. With fall just around the corner – the harbinger of bake sales and holiday entertaining – it's time to start harnessing the power of flour for your next baking project!

Keep in mind that the harder the wheat, the higher the protein content in the flour. Soft, low protein wheats are used for cakes, pastries, cookies, and crackers, while hard, high protein wheats make excellent breads.

### White flour

The finely ground endosperm of the wheat kernel.

### All-purpose flour

White flour milled from hard wheats or a blend of hard and soft wheats. It gives the best results for a variety of products, including some yeast breads, quick breads, cakes, cookies, and pastries. All-purpose flour is usually enriched and different brands will vary in performance. Protein content varies from 8-11 percent.

### Bread flour

White flour that is a blend of hard, high protein wheats and has greater gluten strength and protein content than all-purpose flour. Bread flour is milled primarily for commercial bakers, but is available at most grocery stores. Protein varies from 12-14 percent.

### Cake flour

Fine-textured, silky flour milled from soft wheats with low protein content. It is used to make cakes, cookies, crackers, quick breads and some types of pastry. Cake flour has a greater percentage of starch and less protein, which keeps cakes and pastries tender and delicate. Protein varies from 7-9 percent.

### Self-rising flour

Also referred to as phosphate flour, a convenience product made by adding salt and leavening to all-purpose flour. It is commonly used in biscuits and quick breads, but is not recommended for yeast breads. One cup of self-rising flour contains 1 ½ teaspoons baking powder and ½ teaspoon salt. Self-rising can be substituted for all-purpose flour by reducing salt and baking powder according to these proportions.

### Pastry flour

Has properties intermediate between those of all-purpose and cake flours. It is usually milled from soft wheat for pastry-making, but can be used for cookies, cakes, crackers and similar products. It differs from hard wheat flour in that it has a finer texture and lighter consistency. Protein varies from 8-9 percent.

### Whole wheat Flour

This flour is milled from the entire kernel of hard red wheat either by grinding the whole-wheat kernel or recombining the white flour, germ and bran that have been separated during milling.

The presence of bran reduces gluten development, therefore, items baked with whole wheat flour tend to be heavier and more dense than those made from white flour. The insoluble fiber content is higher than in white flours.

### White whole wheat flour

This flour is milled exactly like whole wheat flour and is nutritionally equivalent to whole wheat flour as well. The only difference is that whole white wheat flour is made with a white not red wheat variety. The bran of white wheat is lighter in color and has a milder flavor than red wheat and therefore the flour has these properties as well.

### Gluten flour

Usually milled from spring wheat and has a high protein (40-45 percent), low-starch content. It is mixed with other non-wheat or low-protein wheat flours to produce a stronger dough structure. Gluten flour improves baking quality and produces a high-protein bread.



# Wheat Safari Takes Nutrition Influencers from Farm to Fork



The 2012 Wheat Safari, June 19-21 in Manhattan, KS, let attendees experience first-hand how wheat goes from farm to fork. The information-packed two-and-a-half-day event included visits to:

- A working farm where participants rode a combine and experienced the wheat harvest
- A hands-on baking workshop at the American Institute of Baking featuring wheat flour from the six classes of wheat
- A tour of Kansas State University's Hal Ross demonstration flour mill to see how wheat kernels are turned into flour
- Baking tips and "tricks of the trade" demonstration by baking expert and educator Sharon Davis, Home Baking Association.
- A visit to a commercial bakery where flour is transformed into the wheat foods we all love.

The goal of the event was to educate key influencers about wheat's nutrition and healthfulness.

Take 25 of the nation's top nutrition bloggers, freelance food writers, dietitians and health professionals to Manhattan, KS, the heart of wheat country, and what do you get?

The Wheat Foods Council's Wheat Safari!

