

Knowledge @ Noon

Discovering MyPlate:
“Great Grains!”



Wednesday, May 15, 2019
12:00 - 1:00 p.m.

104 S. Brayman, Paola, KS
Marais des Cygnes Extension District, Paola Office

Instructors:
Marais des Cygnes Extension District Master Food Volunteers

What foods are in the Grains Group?

A grain is a small, hard, dry seed, with or without an attached hull or fruit layer, harvested for human or animal consumption. Because grains are small, hard and dry, they can be stored, measured, and transported more readily than can other kinds of food crops such as fresh fruits, roots and tubers. The development of grain agriculture allowed excess food to be produced and stored easily which could have led to the creation of the first permanent settlements and the division of society into classes. Grain can be divided into cereal grains (wheat, oats, corn, barley, rice, rye, millet, wild rice, spelt), pseudocereal grains (Chai, quinoa, buckwheat), grain legumes (beans, peas, soybeans, peanuts), Oilseeds for vegetable oils (sunflower, rapeseed, safflower), and the other families (flax, hemp, poppy, mustard).

A grain crop is a grain-producing plant. The two main types of commercial grain crops are cereals and legumes. As example, any food made from wheat, rice, oats, cornmeal, barley, or another cereal grain is a grain product. Bread, pasta, oatmeal, breakfast cereals, tortillas, and grits are examples of grain products.

Grains are divided into 2 subgroups, Whole Grains and Refined Grains. Whole grains contain the entire grain kernel — the bran, germ, and endosperm. Examples of whole grains include whole-wheat flour, bulgur (cracked wheat), oatmeal, whole cornmeal, and brown rice. Refined grains have been milled, a process that removes the bran and germ. This is done to give grains a finer texture and improve their shelf life, but it also removes dietary fiber, iron, and many B vitamins. Some examples of refined grain products are white flour, de-germed cornmeal, white bread, and white rice.

Most refined grains are enriched. This means certain B vitamins (thiamin, riboflavin, niacin, folic acid) and iron are added back after processing. Fiber is not added back to enriched grains. Check the ingredient list on refined grain products to make sure that the word "enriched" is included in the grain name. Some food products are made from mixtures of whole grains and refined grains.

The amount of grains you need to eat depends on your age, sex, and level of physical activity. Recommended daily amounts are listed in this table below. Most Americans consume enough grains, but few are whole grains. At least half of all the grains eaten should be whole grains.

Daily Grain Table			
		DAILY RECOMMENDATION*	Daily minimum amount of whole grains
Children	2-3 years old	3 ounce equivalents	1 ½ ounce equivalents
	4-8 years old	5 ounce equivalents	2 ½ ounce equivalents
Girls	9-13 years old	5 ounce equivalents	3 ounce equivalents
	14-18 years old	6 ounce equivalents	3 ounce equivalents
Boys	9-13 years old	6 ounce equivalents	3 ounce equivalents
	14-18 years old	8 ounce equivalents	4 ounce equivalents
Women	19-30 years old	6 ounce equivalents	3 ounce equivalents
	31-50 years old	6 ounce equivalents	3 ounce equivalents
	51+ years old	5 ounce equivalents	3 ounce equivalents
Men	19-30 years old	8 ounce equivalents	4 ounce equivalents
	31-50 years old	7 ounce equivalents	3 ½ ounce equivalents
	51+ years old	6 ounce equivalents	3 ounce equivalents

*These amounts are appropriate for individuals who get less than 30 minutes per day of moderate physical activity, beyond normal daily activities. Those who are more physically active may be able to consume more while staying within calorie needs.

How many grain foods are needed daily?

The amount of grains you need to eat depends on your age, sex, and level of physical activity. Recommended daily amounts are listed in this table below. Most Americans consume enough grains, but few are whole grains. At least half of all the grains eaten should be whole grains.

Ounce-equivalent of grains table			
		Amount that counts as 1 ounce-equivalent of grains	Common portions and ounce-equivalents
Bagels	WG**: Whole wheat RG**: plain, egg	1" mini bagel	1 large bagel = 4 ounce-equivalents
Biscuits	(baking powder/ buttermilk - RG*)	1 small (2" diameter)	1 large (3" diameter) = 2 ounce-equivalents
Breads	WG**: 100% Whole Wheat RG**: white, wheat, French, sourdough	1 regular slice 1 small slice, French 4 snack-size slices rye bread	2 regular slices = 2 ounce-equivalents
Bulgur	cracked wheat (WG**)	½ cup, cooked	
Cornbread	(RG**)	1 small piece (2 ½" x 1 ¼" x 1 ¼")	1 medium piece (2 ½" x 2 ½" x 1 ¼") = 2 ounce-equivalents

Ounce-equivalent of grains table

		Amount that counts as 1 ounce-equivalent of grains	Common portions and ounce-equivalents
Crackers	WG**: 100% whole wheat, rye RG**: saltines, snack crackers	5 whole wheat crackers 2 rye crisp breads 7 square or round crackers	
English muffins	WG**: whole wheat RG**: plain, raisin	½ muffin	1 muffin = 2 ounce-equivalents
Muffins	WG**: whole wheat RG**: bran, corn, plain	1 small (2 ½" diameter)	1 large (3 ½" diameter) = 3 ounce-equivalents
Oatmeal	(WG**)	½ cup, cooked 1 packet instant 1 ounce (1/3 cup), dry (regular or quick)	
Pancakes	WG**: Whole wheat, buckwheat RG**: buttermilk, plain	1 pancake (4 ½" diameter) 2 small pancakes (3" diameter)	3 pancakes (4 ½" diameter) = 3 ounce-equivalents
Popcorn	(WG**)	3 cups, popped	1 mini microwave bag or 100-calorie bag, popped = 2 ounce-equivalents

Ounce-equivalent of grains table			
		Amount that counts as 1 ounce-equivalent of grains	Common portions and ounce-equivalents
Ready-to eat breakfast cereal	WG**: toasted oat, whole wheat flakes RG**: corn flakes, puffed rice	1 cup, flakes or rounds 1 ¼ cup, puffed	
Rice	WG*: brown, wild RG*: enriched, white, polished	½ cup cooked 1 ounce, dry	1 cup, cooked = 2 ounce-equivalents
Pasta-- spaghetti, macaroni, noodles	WG**: whole wheat RG**: enriched, durum	½ cup, cooked 1 ounce, dry	1 cup, cooked = 2 ounce-equivalents
Tortillas	WG**: whole wheat, whole grain corn RG**: Flour, corn	1 small flour tortilla (6" diameter) 1 corn tortilla (6" diameter)	1 large tortilla (12" diameter) = 4 ounce-equivalents

*WG = whole grains, RG = refined grains. This is shown when products are available both in whole grain and refined grain forms.

TIPS: Make Half Your Grains Whole Grains

At meals:

To eat more whole grains, substitute a whole-grain product for a refined product – such as eating whole-wheat bread instead of white bread or brown rice instead of white rice. It's important to substitute the whole-grain product for the refined one, rather than adding the whole-grain product.

For a change, try brown rice or whole-wheat pasta. Try brown rice stuffing in baked green peppers or tomatoes and whole-wheat macaroni in macaroni and cheese.

Use whole grains in mixed dishes, such as barley in vegetable soup or stews and bulgur wheat in a casserole or stir-fry.

Create a whole grain pilaf with a mixture of barley, wild rice, brown rice, broth and spices. For a special touch, stir in toasted nuts or chopped dried fruit.

Experiment by substituting whole wheat or oat flour for up to half of the flour in pancake, waffle, muffin or other flour-based recipes. They may need a bit more leavening.

Use whole-grain bread or cracker crumbs in meatloaf.

Try rolled oats or a crushed, unsweetened whole grain cereal as breading for baked chicken, fish, veal cutlets, or eggplant parmesan.

Try an unsweetened, whole grain ready-to-eat cereal as croutons in salad or in place of crackers with soup.

Freeze leftover cooked brown rice, bulgur, or barley. Heat and serve it later as a quick side dish.

As snacks:

Snack on ready-to-eat, whole grain cereals such as toasted oat cereal.

Add whole-grain flour or oatmeal when making cookies or other treats.

Try 100% whole-grain snack crackers.

Popcorn, a whole grain, can be a healthy snack if made with little or no added salt and butter.

What to look for on the food label:

Choose foods that name one of the following whole-grain ingredients first on the label's ingredient list:

Whole grain ingredients	
brown rice	whole-grain barley
buckwheat	whole-grain corn
bulgur	whole-grain sorghum
millet	whole-grain triticale
oatmeal	whole oats
popcorn	whole rye
quinoa	whole wheat
rolled oats	wild rice

Foods labeled with the words "multi-grain," "stone-ground," "100% wheat," "cracked wheat," "seven-grain," or "bran" are usually not whole-grain products.

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 it is a whole grain.

Use the Nutrition Facts label and choose whole grain products with a higher % Daily Value (% DV) for fiber. Many, but not all, whole grain products are good or excellent sources of fiber.

Read the food label's ingredient list. Look for terms that indicate added sugars (such as sucrose, high-fructose corn syrup, honey, malt syrup, maple syrup, molasses, or raw sugar) that add extra calories. Choose foods with fewer added sugars.

Most sodium in the food supply comes from packaged foods. Similar packaged foods can vary widely in sodium content, including breads. Use the Nutrition Facts label to choose foods with a lower % DV for sodium. Foods with less than 140 mg sodium per serving can be labeled as low sodium foods. Claims such as "low in sodium" or "very low in sodium" on the front of the food label can help you identify foods that contain less salt (or sodium).

Whole grain tips for children

Set a good example for children by eating whole grains with meals or as snacks.

Let children select and help prepare a whole grain side dish.

Teach older children to read the ingredient list on cereals or snack food packages and choose those with whole grains at the top of the list.

HOMEMADE BEEF BARLEY SOUP

Ingredients

1 tablespoon olive oil
1 onion chopped
1 garlic clove minced
2 carrots sliced
1 stalk celery sliced
2 cups cooked beef (ground beef, chuck roast as example)
6 cups reduced sodium beef broth
1 can petite diced tomatoes 14-15 oz, undrained
1/2 green pepper diced
2/3 cup barley
1 tablespoon Worcestershire sauce
1/4 teaspoon dried thyme
1 package beef gravy mix
1 bay leaf
2 tablespoons red wine optional
2 tablespoons fresh parsley or 2 teaspoons dried
salt & pepper to taste

Instructions

- 1) Cook onions and garlic in oil over medium heat until softened.
- 2) Add remaining ingredients and bring to a boil. Reduce heat and simmer covered about 40-50 minutes or until barley is cooked.
- 3) Remove bay leaf and serve.

Soup may thicken upon cooling, add extra broth (or water) to reach desired consistency. Shredded cabbage or diced potatoes can also be added.

Nutrition Information

Calories: 149, Fat: 5g, Saturated Fat: 1g, Cholesterol: 17mg, Sodium: 385mg, Potassium: 623mg, Carbohydrates: 15g, Fiber: 3g, Sugar: 1g, Protein: 10g, Vitamin A: 53.6%, Vitamin C: 11.8%, Calcium: 2.5%, Iron: 8.5%

Creamy Rice Pudding

Ingredients

3/4 cup uncooked white rice
2 cups milk, divided
1/3 cup white sugar
1/4 teaspoon salt
1 egg, beaten
2/3 cup golden raisins
1 tablespoon butter
1/2 teaspoon vanilla extract

Directions

Bring 1 1/2 cups water to a boil in a saucepan; stir rice into boiling water. Reduce heat to low, cover, and simmer for 20 minutes. In a clean saucepan, combine 1 1/2 cups cooked rice, 1 1/2 cups milk, sugar and salt. Cook over medium heat until thick and creamy, 15 to 20 minutes. Stir in remaining 1/2 cup milk, beaten egg, and raisins; Cook 2 minutes more, stirring constantly. Remove from heat and stir in butter and vanilla.

Nutrition Facts: Per Serving: 366 calories; 6.9 g fat; 67.6 g carbohydrates; 8.8 g protein; 64 mg cholesterol; 237 mg sodium.

Perfect Microwave Rice

Perfect fluffy rice can be made in the microwave very easily.

In a bowl combine:

1 part rice
2 part water
1 tbsp cooking oil – oil prevents sticking and makes rice fluffier

Cover and cook in microwave for 12 minutes.

The amount of rice used does not affect cooking time.

Tomato Basil Pasta Salad

2 medium fresh tomatoes or you can use canned

1 C fresh basil leaves – cut up

3 cloves garlic

½ Tablespoon salt

¼ Cup olive oil

¼ Cup Italian salad dressing

2 cups pasta noodles of your choice

½ red pepper diced

½ yellow pepper diced

½ green pepper diced

1 can sliced black olives

Fresh grated parmesan cheese

Cut tomatoes into bite sized pieces and add the cut up basil leaves. In a separate bowl squeeze the garlic cloves in a minced mush. Mash the garlic with the salt. Add the tomato basil mixture to the garlic mixture and stir in the olive oil and salad dressing. Mix well and let set at room temperature for at least 30 minutes.

Cook pasta noodles, drain and rinse. Stir the cut up peppers and olives into pasta and add the tomato basil dressing. Stir well and refrigerate for at least 1 hour. Just before serving add freshly grated parmesan cheese.

Nutrition Facts	
servings per container	
Serving size	(168g)
Amount per serving	
Calories	280
% Daily Value*	
Total Fat 19g	24%
Saturated Fat 3g	15%
Trans Fat 0g	
Cholesterol 5mg	2%
Sodium 1160mg	50%
Total Carbohydrate 26g	9%
Dietary Fiber 3g	11%
Total Sugars 3g	
Includes 0g Added Sugars	0%
Protein 5g	
Vitamin D 0mcg	0%
Calcium 106mg	8%
Iron 3mg	15%
Potassium 210mg	4%
<small>*The % Daily Value tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.</small>	

Oatmeal Cookies

1 cup butter
1/2 cup shortening
2 cups. brown sugar
1 cup granulated sugar
2 eggs
1/4 cup water
2 teas. vanilla
2 cups flour
2 teas. salt
1 teas. soda
1 teas. cinnamon
6 cups oatmeal
1 cup chopped nuts, optional
1 cup raisins, optional

Cream shortening and sugars together. Add eggs, water and vanilla. Cream well. Combine flour, salt, soda and cinnamon and add to creamed mixture and mix well. Add oatmeal. Add chopped nuts and or raisins if using and mix well. Drop out onto parchment lined cookie sheet and bake 10 to 11 minutes in a 350 degree oven. Makes 6 dozen cookies.

Nutrition Facts

servings per container	
Serving size	(36g)
Amount per serving	
Calories	90
% Daily Value*	
Total Fat 4g	5%
Saturated Fat 2.5g	13%
Trans Fat 0g	
Cholesterol 15mg	5%
Sodium 105mg	5%
Total Carbohydrate 12g	4%
Dietary Fiber 0g	0%
Total Sugars 7g	
Includes 7g Added Sugars	14%
Protein 1g	
Vitamin D 0mcg	0%
Calcium 4mg	0%
Iron 0mg	0%
Potassium 17mg	0%

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BULGUR BLACK BEAN SALAD

yields 4 servings, approx 1/2 cup servings

- 1 orange (rind and juice)
- 1 cup uncooked bulgur
- 1 can (14-15 oz) black beans, drained and rinsed
- 1 red bell pepper, chopped in small pieces
- 6 stalks green onions, chopped in small pieces
- 4 TBS fresh parsley, chopped
- 2 tsp vinegar
- 2 TBS canola or olive oil
- 1/2 tsp ground cumin

1. Put 1 cup bulgur and 2 cups water or broth in a covered sauce pan. Bring to boil then simmer 10-12 minutes until excess liquid is absorbed. Let bulgur cool, then fluff with a fork.
2. Scrub the orange, then grate the top colored layer of rind off (a cheese grater works fine if you don't have a citrus zester).
3. Cut orange in half and squeeze juice into a large mixing bowl.
4. Add orange rind, vinegar, oil and cumin to the orange juice in the bowl.
5. Chop all the veggies while the bulgur is cooking.
6. Throw veggies in the bowl and mix. Add cooked bulgur and mix again to combine everything.
7. Chill in refrigerator a half hour or more before serving.

Variations:

- Use leftover cooked bulgur from last night's dinner.
- Substitute whole wheat couscous for the bulgur.
- Try different vegetables—be creative.
- Use a lemon instead of an orange.

Nutrition Facts

servings per container
Serving size (207g)

Amount per serving
Calories **300**

% Daily Value*

Total Fat 8g	10%
Saturated Fat 1g	5%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 320mg	14%
Total Carbohydrate 47g	17%
Dietary Fiber 12g	43%
Total Sugars 3g	
Includes 0g Added Sugars	0%
Protein 10g	
Vitamin D 0mcg	0%
Calcium 70mg	6%
Iron 3mg	15%
Potassium 126mg	2%

*The % Daily Value tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

Bread Pudding with Nutmeg

TOTAL TIME: Prep: 15 min. Bake: 40 min. YIELD: 6 servings.

Ingredients

- 2 large Eggs
- 2 cups milk
- 1/4 cup butter, cubed
- 3/4 cup sugar
- 1/4 teaspoon salt
- 1 teaspoon ground cinnamon
- 1/2 teaspoon ground nutmeg
- 1 teaspoon vanilla extract
- 4-1/2 to 5 cups soft bread cubes (about 9 slices)
- 1/2 cup raisins, optional

VANILLA SAUCE:

- 1/3 cup sugar
- 2 tablespoons cornstarch
- 1/4 teaspoon salt
- 1-2/3 cups cold water
- 3 tablespoons butter
- 2 teaspoons vanilla extract
- 1/4 teaspoon ground nutmeg

Directions:

1. In a large bowl, lightly beat eggs. Combine milk and butter; add to eggs along with sugar, spices and vanilla.
2. Add bread cubes and raisins if desired; stir gently.
3. Pour into a well-greased 11x7-in. baking dish.
4. Bake at 350° for 40-45 minutes or until a knife inserted 1 in. from edge comes out clean.
5. Meanwhile, for sauce, combine the sugar, cornstarch and salt in a saucepan. Stir in water until smooth. Bring to a boil over medium heat; cook and stir for 2 minutes or until thickened. Remove from the heat. Stir in the butter, vanilla and nutmeg. Serve with warm pudding.

Bread Pudding

Nutrition Facts	
servings per container	
Serving size	(208g)
Amount per serving	
Calories	420
	% Daily Value*
Total Fat 14g	18%
Saturated Fat 7g	35%
Trans Fat 1g	
Cholesterol 85mg	28%
Sodium 570mg	25%
Total Carbohydrate 67g	24%
Dietary Fiber 1g	4%
Total Sugars 35g	
Includes 18g Added Sugars	36%
Protein 5g	
Vitamin D 1mcg	6%
Calcium 328mg	25%
Iron 3mg	15%
Potassium 254mg	6%
*The % Daily Value tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.	

Vanilla Sauce

Nutrition Facts	
servings per container	
Serving size	(20g)
Amount per serving	
Calories	90
	% Daily Value*
Total Fat 6g	8%
Saturated Fat 3.5g	18%
Trans Fat 0g	
Cholesterol 15mg	5%
Sodium 140mg	6%
Total Carbohydrate 11g	4%
Dietary Fiber 0g	0%
Total Sugars 8g	
Includes 8g Added Sugars	16%
Protein 0g	
Vitamin D 0mcg	0%
Calcium 2mg	0%
Iron 0mg	0%
Potassium 4mg	0%
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