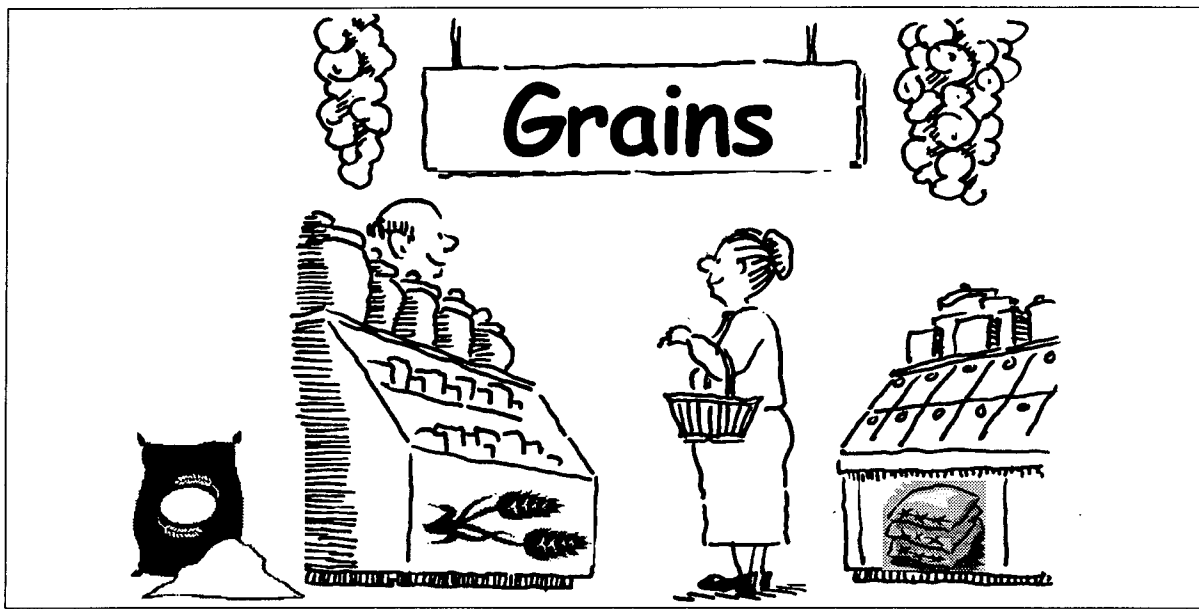


Fall 2000

The Whole Story

During this session you will:

- ♦ *Review study progress and identify areas that may need attention.*
- ♦ *Examine the health benefits of grains, especially whole grains.*
- ♦ *Explore ways to incorporate whole grains into meals and snacks.*



Next Steps Follow-Up

- ◆ What types of surprises/challenges did you meet when you ate meals prepared away from home?
- ◆ How did you choose to deal with them?

WHI Update: Strength from Within

As participants in the largest women's health study ever conducted, you are making a tremendous contribution to science and future generations. Thank you! We realize that in a long-term study, like WHI, unpredictable things happen that can make maintaining a commitment difficult.

If things come up in your life that make it difficult to focus on WHI, we ask that you not give up on the study. Your continued participation is critical for the success of WHI.

Two of the best ways to stay active and interested are:

- ◆ Attending group meetings.
- ◆ Keeping track of what you eat.

Attending Group Meetings. During the first year of the dietary study almost 90% of participants completed sessions. This declined to about 75% during 1999.

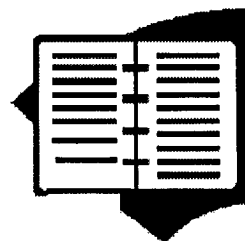
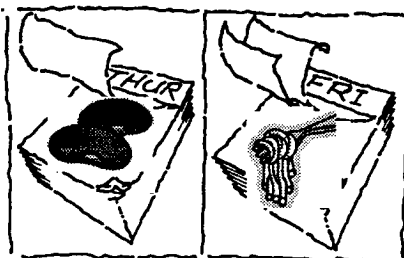
To give participants a greater opportunity to attend group meetings, most clinics now provide a list of the dates and times for all their dietary groups. So if you can't attend with your own group, consider visiting another group and meeting new people!

Remember that the women taking part in WHI are your peers.

They can help in a number of ways.

- ◆ Provide support and encouragement.
- ◆ Share ideas, solutions and information.
- ◆ Remind you that you are part of a very large and important study.

Keeping Track of What You Eat. Self-monitoring is another important way to maintain the dietary changes you've made. We realize that this may sound like a 'broken record', but keeping track of meals/snacks helps maintain awareness and reduces drifting back toward higher-fat eating.



The number of women self-monitoring declined from about 85% in the first year to about 60% in 1999. During this same time period, there was a gradual increase in the intake of fat re-

ported by Dietary Change participants. So, if you are not currently self-monitoring, please consider what you might do. Even self-monitoring once or twice a month could help both

you and the study. If you are self-monitoring, great! Keep it up; it definitely helps both you and the study stay on track.

Role of Grains in a Healthy Low-Fat Eating Pattern

In this part of the session, we plan to focus on the following areas:

- ◆ Health benefits of whole grains.
- ◆ Identification of whole grain foods.
- ◆ Ideas to include more whole grains into meals and snacks.

Both the WHI and the USDA Dietary Guidelines recommend that people eat at least 6 servings of grains each day. But, sometimes people feel this recommendation is too high.

- **How do you feel about eating at least 6 servings of grains each day?**

1 Grain Serving =

- 1 slice bread
- 1 cup cold cereal
- 1/2 cup cooked cereal
- 1/2 cup cooked rice, pasta or grains
- 1/2 cup cooked legumes or beans
- 1 (6-inch) tortilla
- 1/2 (3-inch) bagel (about 1 oz.)
- 1 oz. crackers or pretzels
- 3 cups popcorn (popped)

According to the 1994-96 USDA Food Intake Survey, only 38% of all Americans eat the 6-11 daily grain servings recommended. Moreover, refined grains make up the majority of the grain foods eaten.



In WHI, the grain goal continues to be difficult for many participants. During the first two years of the study, grain servings gradually increased from less than 5 to 5½ servings per day. However, during 1999, the upward trend changed and the average dropped back to about 5 grain servings per day.

To get a better idea about why a low-fat eating pattern like WHI has a grain goal, let's look at some of the potential health benefits of grains.

- **How can eating grains be important for health?**

Health Benefits of Grains. A number of population-based studies have shown links between a high intake of grains, especially whole grains, and a lower risk of cancer, heart disease and diabetes.

Grains are usually low in fat, and provide:

- ◆ Complex carbohydrates
- ◆ Protein
- ◆ Fiber
- ◆ Vitamins
- ◆ Minerals
- ◆ Phytochemicals

In low-fat eating patterns, such as WHI, grains help you eat less fat because they help you feel full. In addition, the dietary fiber in

whole grains promotes regularity and helps to reduce constipation.

Many experts have assumed that the high fiber content of whole grains was largely responsible for the health benefits. However, more recent research suggests that the benefits may be associated with more than just the fiber.

Other whole grain nutrients that may also provide health benefits include:

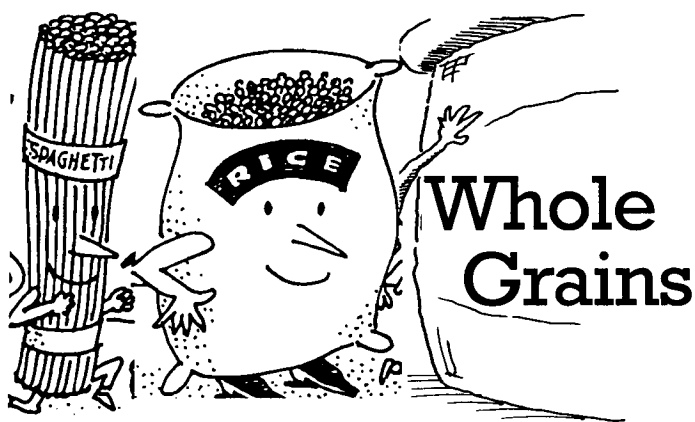
- ◆ Vitamin E.
- ◆ B Vitamins, such as thiamin, B6, and folic acid.
- ◆ Trace minerals, such as zinc, iron, magnesium, and selenium.

- ◆ Phytochemicals, such as plant sterols, lignans and phenolic acid.

The exact ways in which grains function in disease prevention are not known. However, there is a lot of research that strongly supports the idea that regular consumption of whole grain foods plays an important role in reducing the risk of the following:

- ◆ Cancer
- ◆ Heart disease
- ◆ Diabetes
- ◆ Constipation

So now it's time to take a look at your own intake of whole grains.



Wholesome Decisions

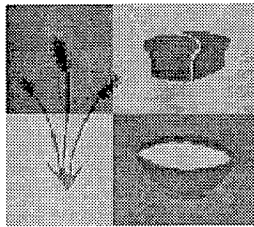
Think about the grains that you ate during the past week.

- ◆ Breads and cereals
- ◆ Grains and pasta
- ◆ Crackers, popcorn and other grain snacks
- ◆ Grain sweets, such as cakes, cookies and pastries
- ◆ Mixed dishes with grains

What are some of the grain foods that you usually eat?

Look at your list of foods and star the ones that you would consider 'healthier grain choices.'

- What do you think makes one type of grain food a 'healthier' choice than another?
- When you hear the term *whole grain*, what does it mean to you?



- What types of foods do you consider to be *whole grains*?
- What foods would you consider to be *refined grains*?

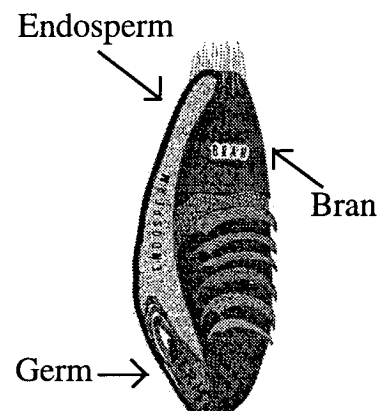
Look at the *Grain/Bean Pyramid* on page 9. The grains listed in the top and middle sections of this pyramid tend to be more refined. The grains listed in the bottom section are considered *whole grains*.

- Think about the grain foods that you usually eat, where would they be on this Grain/Bean Pyramid?
- Are you surprised by some of the grain foods that are not considered to be whole grains?

Sometimes a refined food, such as pancakes or cookies, may be considered a whole grain if it is made with whole grain flours. For ex-

ample, pancakes made with whole wheat or buckwheat flour would be considered a whole grain.

Americans eat an average of 1 whole grain serving each day. Most people would like to eat more, but are confused about what the term *whole grain* means. So, let's take a look.



Whole or Refined Grain? The term *whole grain* means that the grain contains the entire grain:

- bran (outer layer)
- endosperm (starchy middle layers); and
- germ (fatty inner portion)



Some examples of whole grains are: whole wheat bread, corn tortillas, oats, brown rice, barley, and popcorn.

Refined grains have the bran and germ portions of the grain removed during the refining process. This leaves the grain stripped of its original nutrients. Some examples of refined grains are: white bread, flour tortillas, regular pasta, and white rice.

Most of the grains commonly used in home-made and commercial grain products, such as crackers and cookies are made from refined grain flours which are *enriched* or *fortified*. An enriched flour (or grain) has a few of the original nutrients added back to the grain. However, many of the important nutrients, such as Vitamin E, zinc, phyto-

chemicals, and dietary fiber are not replaced.

The recommendation is for people to eat about half of their grain servings as *whole grains*. In WHI, this would ideally mean that about 3 servings a day would come from whole grain sources.

- **How many whole grain servings do you eat on a typical day?**

Label Reading. If you're not sure how many of the grain foods you currently eat are whole grains, take a look at the ingredients. However, be aware that it's not always easy to identify whole grain foods. Sometimes labels and ads can be misleading.

Example:

**Stone Wheat Thins
(Wheat Crackers)**

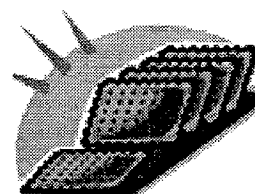
Ingredients: Enriched wheat flour, cracked wheat, hydrogenated vegetable oil....etc.

Looking at this example you might think that this product is a whole grain

food, but it's not; it's a refined grain. Look at the list of ingredients. The first ingredient is *enriched wheat flour*, not whole wheat flour.

Here are a few tips to help you identify 'whole grains.'

- ◆ Look for a food that lists a 'whole grain' as the first ingredient. For example: *whole wheat, brown rice, whole oats, cracked wheat, whole rye, graham flour, whole grain corn*, etc.
- ◆ The following words do not necessarily indicate a whole grain: *stone ground, 100% wheat, multi-grain, 7-grain, organic, semolina, rye or pumpernickel*.
- ◆ Don't assume that a grain product is whole grain just because it looks dark. It may be darkened by molasses or other sweeteners.



◆ Fiber numbers are not a good way to find whole grains. Fiber may be added by other foods (e.g., seeds, fruits, etc.). This may help prevent constipation, but it won't have the antioxidants and phytochemicals found in whole grains.

◆ Brown and wild rice are whole grains; white rice is refined.

◆ Oats are always whole grains, but 'oatmeal' bread is an exception. The first ingredient in oatmeal breads is usually 'refined wheat flour'.

Resource Fall-2, *Looking for Whole Grains* on page 10 provides a way for you to practice using some of these label-reading tips on your own labels at home.



Next Steps



G rains, particularly whole grains, are an important way to maintain a low-fat eating pattern. In addition, they provide key nutrients such as, vitamins, minerals, dietary fiber and phytochemicals.

Consider taking another look at the grain foods you currently eat.

- Do you eat fewer than 6 grain servings each day?
- Do you eat a variety of both whole and refined grains?

Think about a dietary change that you might consider making in your current grain choices or servings. For example:

- ◆ Eating more 'whole grain' foods.
- ◆ Including grains in more meals and/or snacks.
- ◆ Finding a new whole grain to try.

Need some ideas to get started? Look at the Resource Fall-3, *Great Whole Grain Suggestions* (pg. 11). In addition, if you have access

to a computer and the Internet, here are some *websites that you might find interesting:

☛ www.wheatfoods.org

☛ www.generalmills.com/wholegrain

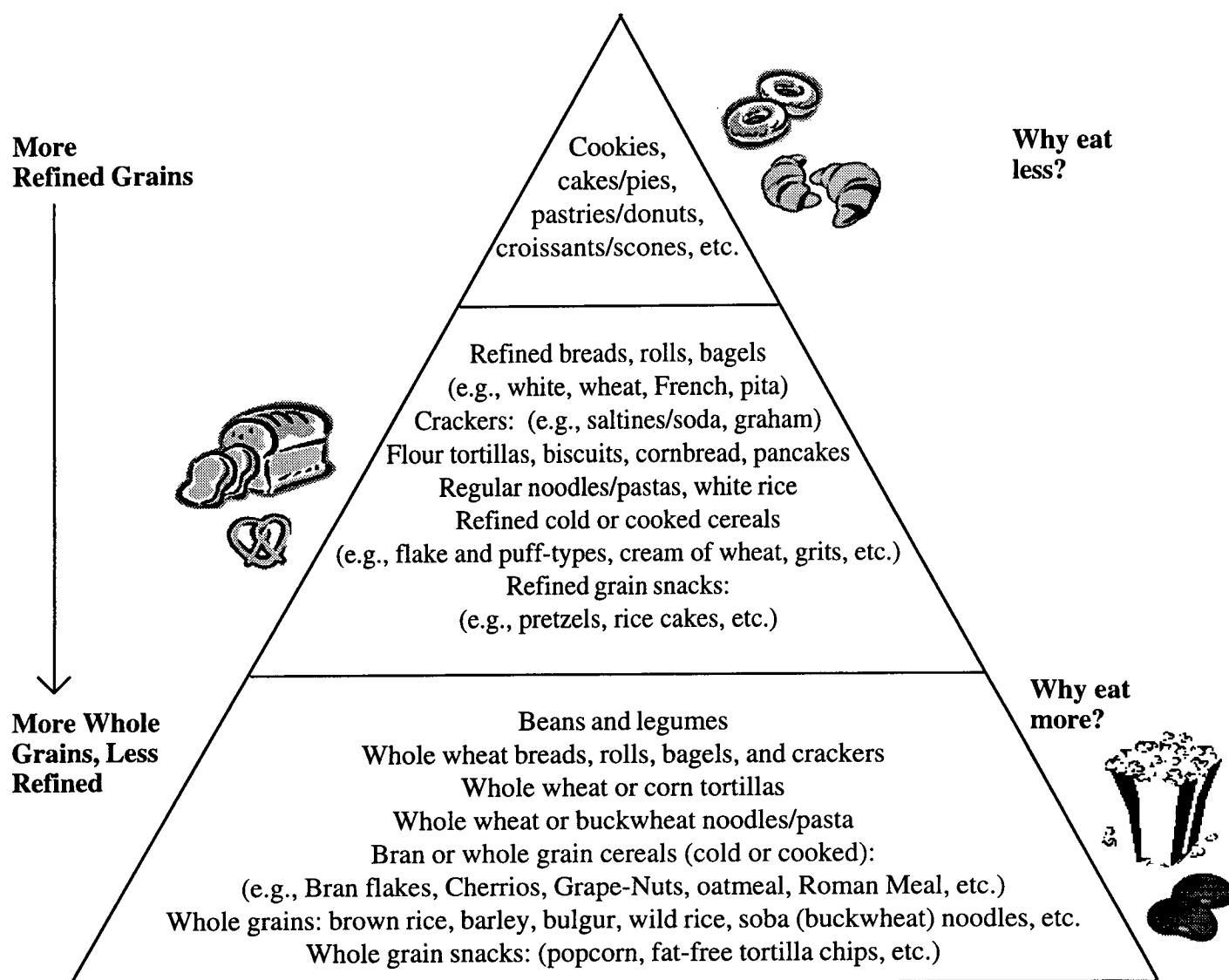
(* The information in the above websites is not an endorsement by WHI of specific food products or information.)

Questions for Thought

- ◆ How might a change in your grain choices help you meet or maintain your WHI grain goal?
- ◆ What do you like about eating grains? What don't you like?
- ◆ What would need to happen in order for you to consider eating more whole grains?

The Grain/Bean Pyramid – Where Are My Grains?

Look at the grain foods shown in the pyramid below. Circle any foods that you ate last week. If you cannot find a grain-food that you ate, write it on the bottom of the page. Where are most of your grain choices, in the top or the bottom of the pyramid? Aim for making more of your choices from the bottom.



Other grain foods I ate: _____

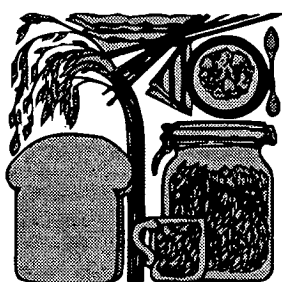
Looking for Whole Grains



Look at the grain foods listed below. Use the label-reading tips on pages 6-7 and the information in the second column (Grain Ingredients on the Label) to select the grain foods that would be considered 'whole grains.' In the third column, mark (✓) if it is a whole grain.

Grain Food	Grain Ingredients on the Label	Whole Grain (✓ if yes)
1. Orowheat Honey Wheat Berry Bread	Cracked wheat	
2. Arnold's Real Jewish Rye Bread	Enriched wheat flour, malted barley flour	
3. Honey Maid Honey Grahams	Enriched wheat flour	
4. Bulgur	Toasted cracked wheat	
5. Rice-a-Roni	Enriched rice, enriched vermicelli	
6. Orville Redenbacher's 100% Popcorn Mini Cakes	Popping corn	
7. Wheatsworth Stone Ground Wheat Crackers	Enriched wheat flour	
8. Health Valley Apricot Delight Cookies	Organic 100% whole wheat, organic oats, 100% whole grain and fiber blend	

Answer: 1, 4, 6, and 8 are whole-grain products. The rest contain mainly refined grains.



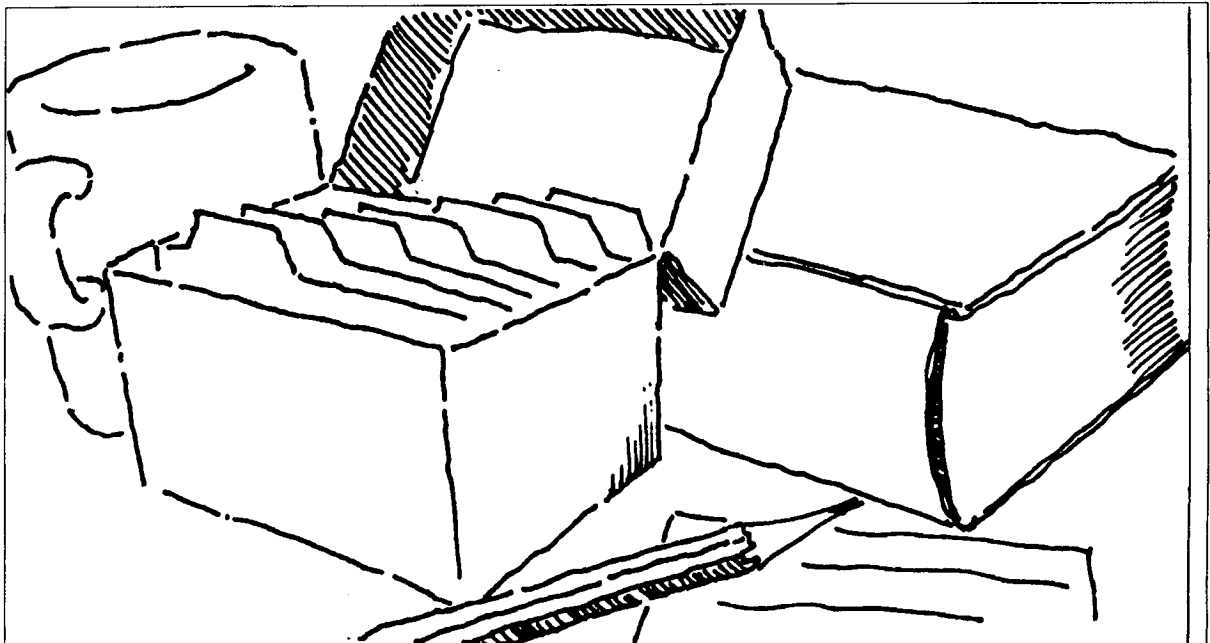
Great Whole Grain Suggestions

1. Buy low-fat bread, cereals, and crackers that list whole grain as the first ingredient.
2. Use brown rice or flavorful brown basmati rice instead of white rice.
3. When eating out, request that sandwiches be made on whole wheat bread.
4. Serve whole wheat breadsticks with soup or salad.
5. Use whole wheat tortillas.
6. Add wild rice to your favorite rice dish.
7. Try whole wheat pastry flour as a nice introduction to using whole wheat flour. It has a much finer texture and is lighter in color.
8. For a convenient breakfast, consider buying frozen whole grain waffles - just pop them into a toaster.
9. Stuff a whole wheat pita bread with your favorite sandwich filling.
10. Experiment with new grains. Try quinoa (keen-wah) or kasha as a side dish instead of rice.
11. Munch on fat-free popcorn for a satisfying whole grain snack.
12. Instead of the usual lettuce salad, make a grain salad with bulgar, brown rice, or whole wheat couscous.
13. On the weekend, have cooked oatmeal with maple syrup or brown sugar.
14. Try whole wheat pasta with your favorite low-fat tomato sauce.
15. Once a week or more, try a low-fat meatless meal or main dish that features whole grains (vegetable stir-fry over brown rice, vegetarian burritos made with whole wheat tortillas).
16. Try low-fat granola-type cereals or Grape Nuts as a topper for fruit or fruit-flavored frozen yogurt.

Fall 2000

Recipes

- ◆ *Cranberry Orange Rice*
- ◆ *Veggie Meatloaf*
- ◆ *Bob's Black-Eyed Peas and Rice Casserole*



Cranberry Orange Rice

2 cups cooked brown rice
1/2 cup orange juice
1/2 cup dried cranberries
1 orange, seeded and diced
3 tablespoons chopped walnuts
1 teaspoon minced fresh mint
2 scallions, chopped (optional)
1 tablespoon raspberry vinegar (optional)
dash of salt

Place all ingredients in a mixing bowl and stir to combine. Adjust seasonings as desired.

Tip: The recipe can be varied by using any other cooked grains, such as a combination of brown and wild rice, kamut, bulgur, etc.

Makes 6 (1/2 cup) servings

Fat: 3 grams per serving

Fruit/Vegetable Servings: 0.5 per serving

Grain Servings: 0.5 per serving

Recipe from the George Washington University WHI Clinical Center

Veggie Meatloaf

1 pound ground turkey breast OR lean hamburger
1 cup raw minced carrots
1 cup raw minced cabbage
2 tablespoons dried sage
1 cup quick cooking oatmeal (uncooked)
3/4 cup catsup or tomato paste
1 egg, slightly beaten (1/4 cup Eggbeaters®)

Mix ingredients and place in loaf pan.
Bake 45-60 minutes at 375° F in oven.

Makes 8 servings

Fat: 3 grams per serving (if made with
ground turkey breast)
7 grams per serving (if made with
extra lean [15%] ground beef)

Fruit/Vegetable Servings: 0.5 per
serving.

Grain Servings: 0.5 per serving

Recipe from Boston WHI Clinical
Center

Bob's Black-Eyed Peas and Rice Casserole

1 slice bacon, or 1 tablespoon Bacos®
1 medium onion, chopped
1 can (16-ounce) black-eyed peas
1 can (14-ounce) stewed tomatoes, undrained
1 cup cooked brown rice
1/4 teaspoon salt
1/4 teaspoon pepper
vegetable cooking spray

Cook bacon. Set aside for garnish.
Sauté onion in vegetable cooking spray. Add remaining ingredients.
Mix well. Spoon into casserole dish.
Bake in 350° F oven for 30 minutes.
Sprinkle top with crumbled bacon (or Bacos®).

Makes 6 servings

Fat: 2 grams per serving

Fruit/Vegetable Servings: 1 per serving

Grain Servings: 1 per serving

Recipe from New York City WHI
Clinical Center