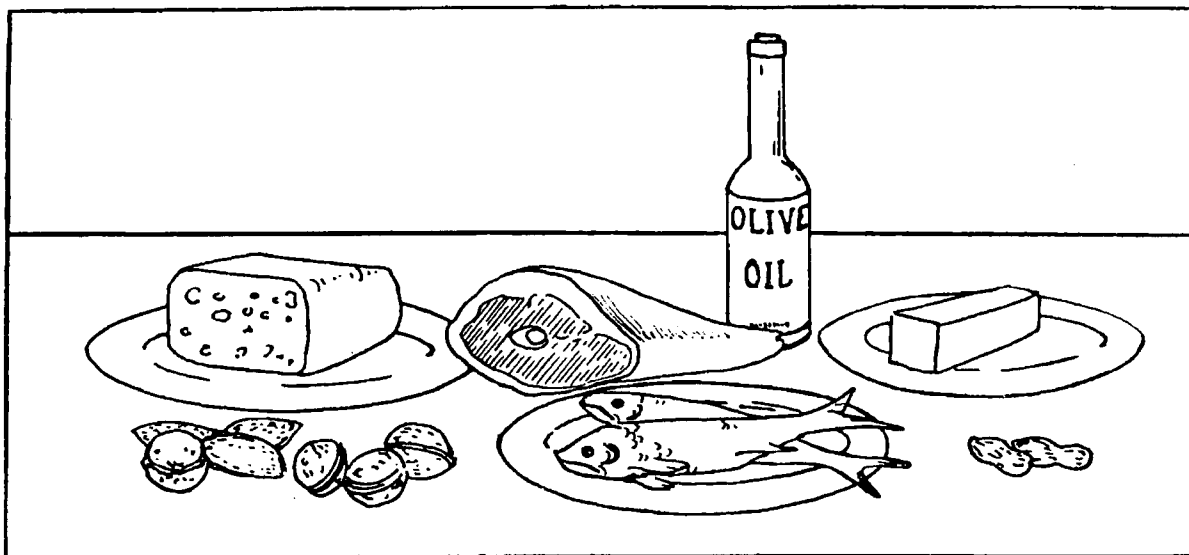


Winter 1998

Not All Fats Are Created Equal

During this session you will:

- ◆ *Relate WHI dietary goals to the role of different types of fat in health and disease*
- ◆ *Identify sources of different types of fat in your own eating pattern*
- ◆ *Practice skills to help you maintain your WHI fat gram goal while increasing the variety of unsaturated fat and decreasing saturated fat food choices*



Goal Follow-Up

- ◆ Which new self-monitoring tool did you try?
- ◆ How was it helpful?
- ◆ What other creative ways do you use to track what you eat?

Overview

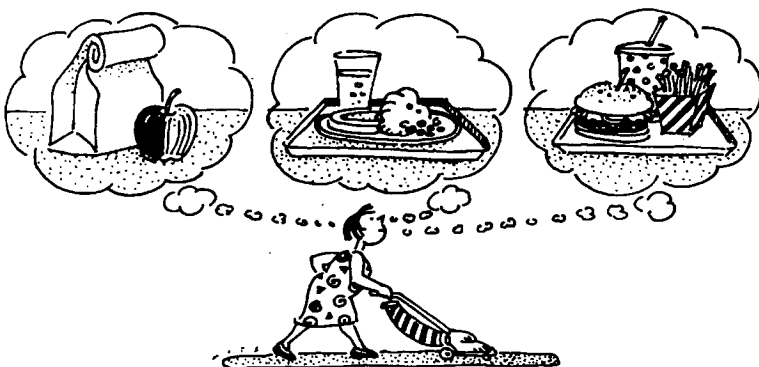
During the past few years, low-fat eating has become a topic of great interest. Numerous studies have been conducted around the world, each with its own set of questions. So it's not surprising that we continue to see newspaper headlines that provide confusing statements about what to eat or what not to eat.

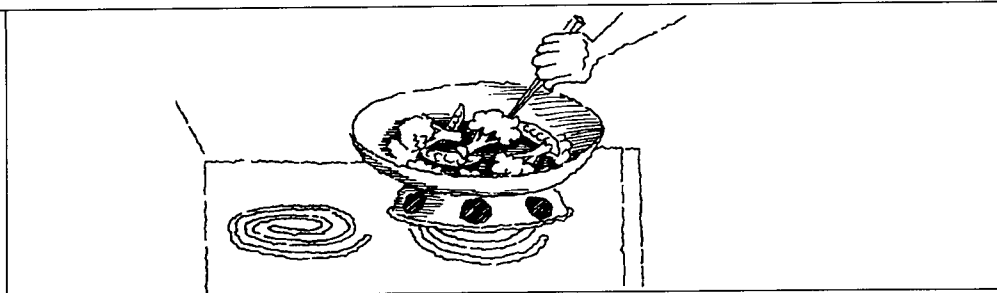
For example, "Animal fat is bad, olive oil is good; margarine is better than butter-then again, maybe it's not." These headlines may have you thinking about your own fat intake and WHI.

In the Summer '98 issue of the DM newsletter, *Making WHIse Choices*, we began by answering some of your questions about the safety of low-

fat eating patterns. Then, in the Fall '98 issue, we provided some tips to help people evaluate the accuracy and believability of news media reports.

In this session, we plan to review the role of fat in the WHI eating pattern and address questions that we have received from participants about different types of fat and their relation to health. We hope that this information will help with your own WHI eating pattern.





Role of Fat in Health

What do fats provide? Small amounts of dietary fats are necessary to good health. They provide energy and essential fatty acids for healthy skin. They also carry and help the body absorb the fat-soluble vitamins A, D, E, and K. Yet, despite all the functions of fat, we only need a small amount (about 1-2 teaspoons per day from foods or oils) to meet our needs.

Are there certain fats that we need to eat?

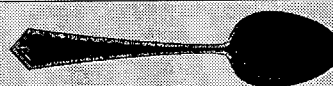
Yes, there are two polyunsaturated fats that your body cannot make enough of. These are called essential fats (linoleic and linolenic).

These two essential fats provide the raw materials that are important for specific body functions, such as blood clotting, inflammation, blood pressure regulation, and immune system function.

What foods contain essential fats?

Small amounts of essential fats are found in a wide range of foods, such as bean/legumes, whole grains, vegetable oils and nuts/seeds (e.g., walnuts, flaxseeds and sunflower seeds). These essential fats are also found in cold water fish,

like salmon and in soy products. So, getting enough of these essential fats is easy if you eat a variety of foods.



We can meet our daily needs with as little as 1-2 teaspoons of fat from foods or oils.

Now before you read more about the different types of fats and their relation to

health, take a few minutes to quickly evaluate your own food choices.

Use the Winter-1 worksheet (pg. 10-11) and circle foods that you ate during the past week. If you find that you are not circling many foods, don't worry. This probably means that many of your food choices are low in fat.

Questions About Different Types of Fat

What are the different types of fat?

Basically there are three main classes of dietary fats: saturated, monounsaturated and polyunsaturated. These terms refer to the degree to which a fat is loaded with hydrogen. Saturated fat, for instance, contains all the hydrogen it possibly can, while polyunsaturated fat contains the least amount of hydrogen.

There are three main classes of dietary fats: saturated, monounsaturated and polyunsaturated.

All fats, animal and vegetable, contain a mixture of these fats. Nevertheless, many foods are higher in one type of fat than another.

What is hydrogenation?

Hydrogenation is a chemical process. It changes a polyunsaturated fat (oil) into a more saturated fat. Food companies use this process either to im-

prove the shelf life of a fat or to make an oil into margarine or shortening.

Saturated Fat

What foods contain saturated fat?

Animal products are major sources of saturated fat in the American diet. Butter, cheese, whole milk, ice cream, and cream all contain high amounts of satu-

rated fat. Saturated fat is also found in the fat that surrounds meat and in the

white streaks of fat in the muscle of meat (marbling). Poultry, fish, and shellfish also contain saturated fat, but the amounts are usually much lower than red meat.

In addition, saturated fat is abundant in tropical oils like coconut and palm oil and in cocoa butter (found in choco-

late). Tropical oils are sometimes used in baked goods like cookies and crackers, and in other processed foods. However, today, most processed foods are made with partially hydrogenated vegetable oils.

How is saturated fat related to breast and colorectal cancers and heart disease?

Saturated fat is best known for its role in promoting risk factors related to heart disease. Consuming excess saturated fat can raise blood cholesterol levels in some people. High intakes of saturated (animal) fat are also potential risk factors in both breast and colorectal cancers.



So, reducing your use of highly saturated foods, such as fatty meats, whole milk, cheese, ice cream, and rich desserts appears to be beneficial.

What is more important in my WHI eating pattern, the total amount of fat I eat or the type of fat?

Both are equally important in your WHI eating pattern.

If both are important, then don't I need a saturated fat goal?

No. In WHI, your fat gram goal focuses on the TOTAL amount of fat that you eat. The reason that we don't ask you to track saturated fat is because saturated fat usually decreases as people reduce their total fat intake.

You have already made many dietary changes that have reduced your intake of saturated fat. For example, you probably:

- ◆ **Eat less red meat**
- ◆ **Use low-fat dairy foods**
- ◆ **Eat chicken and fish**
- ◆ **Limit commercially fried foods**

However, over time, larger servings of some of these foods might slip back into your food choices (e.g., red meat, ice cream, cookies, cakes, snack crackers, etc.). Go back and look at the foods you circled on the Winter-1 worksheet under the saturated fat column.

- ◆ **How often do you eat these foods?**
- ◆ **What size is your usual serving?**

Trans Fat

I've heard a lot about a fat that acts like saturated fat, it's called trans fat. What type of fat is this?

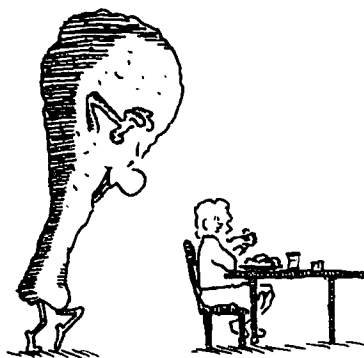
Trans fat or trans fatty acids are a by-product produced when unsaturated fats are hydrogenated.

Trans fatty acids make up a very small part of a low-fat eating pattern, such as the WHI.

Are trans fatty acids bad?

Despite recent media reports about the role of trans fatty acids in raising blood cholesterol levels, scientists are still debating the effect of these fats. A few clinical studies have shown that high levels of trans fats





moderately raise LDL (bad) cholesterol levels but to a less extent than saturated fats.

In addition, trans fatty acids only make up a small part of a typical American diet (2-4% of daily fat intake) while saturated fat makes up about 14%.

Low-fat foods have very small amounts of trans fatty acids. So, in a low-fat eating pattern, such as WHI, trans fatty acids would make up a very small portion of the diet because you eat more lower fat foods.

What foods contain trans fatty acids?

Trans fatty acids are found in most margarines, and in many kinds of French fries, fried chicken or fish, pies,

cakes, cookies and other foods made with shortening. They also occur naturally in meat and dairy products.

Take a look and see if any of the foods you circled on the Winter-1 worksheet have a star behind them (*). The star indicates that the food may contain some trans fatty acids.

◆ **How often do you eat these foods?**

Margarine is one of the foods I use. Should I stop using margarine, since it contains trans fatty acids?

No, small amounts of margarine should be okay as long as you are within your WHI fat gram goal.

However, if you want to reduce trans fatty acids in your diet, you can switch from stick margarine to a lower-fat tub, liquid 'squeeze' or pump spray margarine. Or, you might try one of the new 'trans-free' margarines. Ask your nutritionist about the products available in your area.

Monounsaturated Fat

What foods contain monounsaturated fat?

Olive and canola oils are examples of monounsaturated fat. Other foods that are rich in monounsaturated fat include peanuts, peanut oil, avocados, and almonds.

How is monounsaturated fat different than saturated fat?

Unlike saturated fat, monounsaturated fat does not promote heart disease. Recent studies indicate that substituting small amounts of monounsaturated fat for saturated fat reduces blood cholesterol levels. In fact, in a country like Greece, where olive oil is used, the occurrence of heart disease is much lower than in the United States.

Does this mean that I should add olive oil to my diet?

No. People in Greece use olive oil *instead of* saturated fat. It is the absence of saturated fat, rather than the presence of monounsaturated fat, that provides the health



Don't add olive or canola oils to your diet, use them to replace saturated fats like butter or lard.



benefits. In addition, the Greek population ate more fruits, vegetables and whole grains.

However, since monounsaturated fat has no known harmful effects - other than being a concentrated source of calories, like all fats -

they are a good choice as long as you stay within your WHI fat gram goal.

Go back and look the Winter-1 worksheet under the unsaturated fat column.

- ◆ **What foods do you eat that are high in monounsaturated fat?**

Polyunsaturated Fat

What foods contain more polyunsaturated fat?

This fat is found primarily in safflower, corn, soybean, cottonseed, sesame and sunflower

oils. It is also present in walnuts and sunflower seeds, and in many salad dressings. But be careful. Commercially prepared salad dressings may also be high in saturated fat if they contain cheese or sour cream. Check the label.

Go back and look the Winter-1 worksheet under the unsaturated fat column.

- ◆ **What foods do you eat that are high in polyunsaturated fat?**

How is polyunsaturated fat related to breast and colorectal cancer and heart disease?

Like monounsaturated fat, polyunsaturated fat may lower blood cholesterol levels, so it is often recommended as part of a heart-healthy eating plan. There is very little information available about the relationship of polyunsaturated fat to the risk of cancer.



Summary

As scientific knowledge about dietary fat continues to grow, the best advice is to limit your total fat intake, reduce saturated fat, and eat plenty of whole grains, vegetables and fruits. Take a few minutes to think about your own eating patterns.

Use your own self-monitoring tool to help you evaluate your food choices. Then decide what steps you want to take to get a better mix of fats in your own eating pattern.

Based on what you discover, set a goal to work on during the next few months.

At our next session in Spring 1999, we will talk more about the role of diet in breast and colorectal cancer.

Questions for thought:

- ◆ Which of your food choices tend to have more saturated fat?
- ◆ What types of foods would help you maintain a low-fat eating pattern while also providing small amounts of mono- and/or polyunsaturated fats?

My Plan

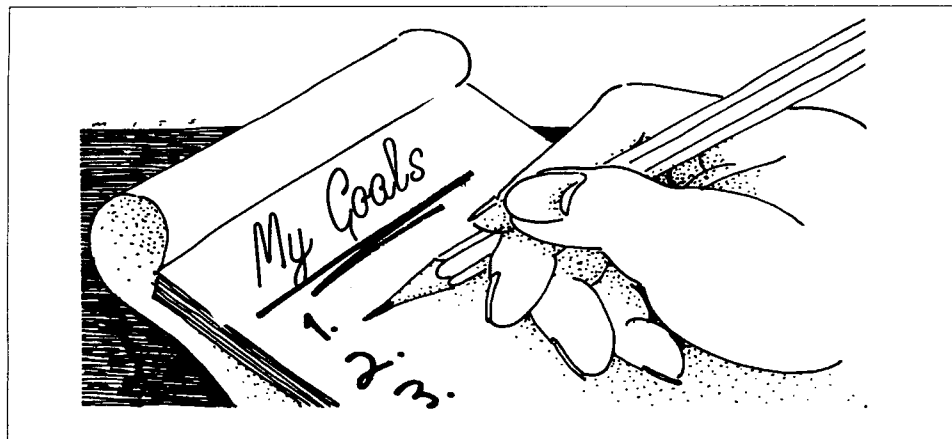
Area(s) I will work on during the next three months:

My Goal: _____

Evaluation:

When you come to the next group meeting, think about what steps you took to maintain your WHI fat gram goal while also improving the mix of fats in your WHI eating pattern. Be ready to share information about:

- ◆ **Your changes (goals).**
- ◆ **The changes that seemed to work and why they worked for you.**
- ◆ **The changes that didn't work and how they could be modified to work better.**



Fat: What Different Types Do You Eat?

Look at the foods listed below. They are foods that tend to have higher amounts of either saturated or unsaturated fats. Circle any foods that you have eaten in the last week. This information will help you evaluate the different types of fats you currently eat. The star (★) behind a food indicates that the food may contain some 'trans' fatty acids.

Notice that this list does not include lower-fat or fat-free foods, such as fruits, vegetables, whole grains and low-fat dairy foods. That is because these foods are low in total fat and are not major sources of either saturated or unsaturated fat.

Foods with More Saturated Fat	Foods with More Unsaturated Fat (Monounsaturated or Polyunsaturated)	
Fats and Oils	Fats and Oils	
Butter Animal fat (meat fat, lard, bacon fat, etc.) Vegetable shortening (i.e., Crisco, etc.)★ Chocolate Coconut	<u>Monounsaturated Fat:</u> Olive, canola, flaxseed oils Peanuts, cashews, almonds Peanut butter★ Avocado and olives	<u>Polyunsaturated Fat:</u> Margarine★ Corn, safflower, sesame, sunflower, soybean oils Sunflower seeds, walnuts, sesame seeds, pine nuts, soy nuts Mayonnaise/Miracle Whip Oil-based salad dressings (e.g., Italian, French, etc.)
Meat, Poultry, Fish and Eggs	Meat, Poultry, Fish and Eggs	
Beef, pork, ham, lamb Bacon/sausage, hot dogs or lunch meats Poultry with skin Breaded/deep-fried meat, poultry, or fish (commercial)★ Egg yolks	<u>Monounsaturated Fat:</u> (None)	<u>Polyunsaturated Fat:</u> Cold water fish: salmon, mackerel, sardines, herring, trout, pompano Tuna canned in oil (Tofu contains small amounts)

Worksheet Winter-1 (Cont.)

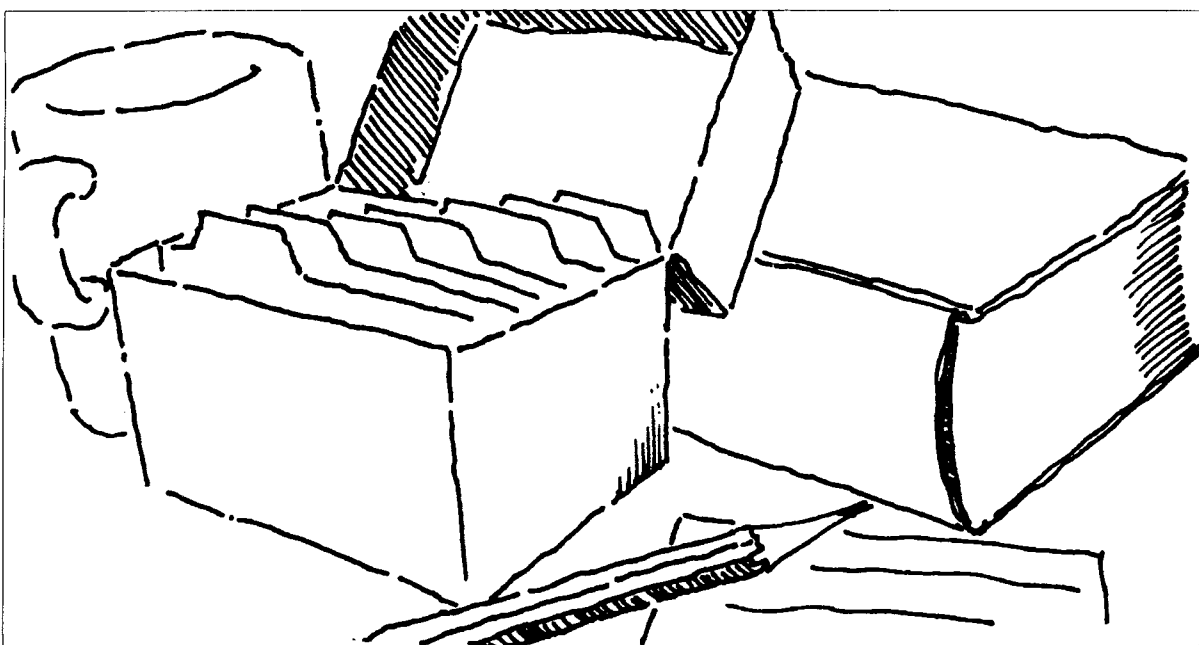


Foods with More Saturated Fat		Foods with More Unsaturated Fat (Monounsaturated or Polyunsaturated)	
Dairy Foods		Dairy Foods	
Cheese or cream cheese (regular) Whole, 2% milk, half/half or cream Ice cream or ice milk Yogurt or cottage cheese (regular) Sour cream or whipped cream (regular)		<u>Monounsaturated Fat:</u> (None)	<u>Polyunsaturated Fat:</u> Nondairy creamers containing soybean oil
Grains & Beans		Grains & Beans	
Commercial baked goods: pies, cakes, cookies, donuts, sweet rolls, muffins, croissants, pastries, etc.)★ Snack crackers (Ritz, Triscuits, Wheat Thins, etc.)★ Commercial granola made with coconut or palm oils★		<u>Monounsaturated Fat:</u> (None)	<u>Polyunsaturated Fat:</u> Commercial granola made with soybean or cottonseed oils★ Soybeans

Winter 1998

Recipes

- ◆ *Mexican Black Beans and Rice*
- ◆ *Skillet Rice with Shrimp*
- ◆ *Sesame Broccoli Stir-Fry*
- ◆ *Amazing Mayonnaise*



Mexican Black Beans and Rice

2 teaspoons olive oil

1 cup onion, chopped

1/2 cup green pepper, chopped

2 cups long-grain rice, cooked without fat

1/2 teaspoon ground cumin

1/4 teaspoon ground red pepper

1/8 teaspoon ground coriander

1 (15-ounce) can black beans, rinsed and drained

3/4 cup tomato, chopped

Heat olive oil in large nonstick skillet or wok at medium-high heat until hot. Add onion and green pepper and stir-fry until tender. Stir in cooked rice, cumin, red pepper and coriander and stir-fry for 3 minutes. Add beans and tomato and stir-fry 3 minutes more, or until thoroughly heated.

Makes 8 servings (1/2 cup each)

Fat: 2 grams per serving

Fruit/Vegetable Servings: 1/2 per serving

Grain Servings: 1 per serving

Recipe adapted from: *Low-Fat Ways to Stir-Fry* by Oxmoor House

Skillet Rice with Shrimp

Shrimp and vegetables make this a one-pot meal; if you like, omit the shrimp for a colorful side dish.

- 1 tablespoon olive oil**
- 1 onion, peeled and chopped**
- 1 green or red bell pepper, seeded and chopped**
- 2 cloves garlic, minced**
- 1 cup raw long-grain white rice**
- 1/2 cup dry white wine**
- 1 (14-ounce) can tomatoes**
- 1 (14 ounce) can chicken broth, fat skimmed off**
- 1 tablespoon Worcestershire sauce**
- 1/2 teaspoon dried thyme leaves**
(or 1-1/2 teaspoons fresh, chopped)
- 1/4 teaspoon salt**
- 1 pound large shrimp, peeled, cooked (thawed, if frozen)**
- 1 cup frozen peas, thawed**
- 1/4 cup chopped fresh parsley**

In a deep skillet with a lid, heat oil over medium heat. Add onions, peppers and garlic; cook, stirring with a wooden spoon, until the onions are soft (about 3-5 minutes). Add rice to the pan and cook, stirring constantly for 1 minute. Pour in wine and cook rapidly until almost all of the liquid has evaporated.

Stir in tomatoes and their juices, chicken broth, Worcestershire,

thyme and salt. Once the mixture begins to bubble and simmer, reduce the heat to low and cover the pan. Cook until the rice is tender and most of the liquid has been absorbed, about 20 minutes.

Gently stir in the shrimp, peas and parsley. Cover and cook until the shrimp are warmed through, about 3-5 minutes.

Makes 7 cups (about 4 servings)

Fat: 3 grams per cup

Fruit/Vegetable Servings: 1 serving per cup

Grain Servings: 1 serving per cup

Recipe from *Secrets of Low-Fat Cooking* by Eating Well

Sesame Broccoli Stir-Fry

- 1 tablespoon brown sugar**
- 3 tablespoons soy sauce**
- 3 tablespoons beef broth, fat skimmed off**
- 1-1/2 tablespoons red wine vinegar**
- 1-1/2 teaspoons cornstarch**
- 1 teaspoons gingerroot, peeled and minced**
- 4 drops hot sauce**
- vegetable cooking spray**
- 2 teaspoon dark sesame oil**
- 8 cups fresh broccoli, chopped**
- 1 large sweet red pepper, cut into thin strips**
- 1 medium onion, cut into wedges**
- 2 cloves garlic, minced**
- 1/4 cup water chestnuts, sliced**
- 1 tablespoons sesame seeds, toasted**

Combine brown sugar, soy sauce, beef broth, vinegar, cornstarch, gingerroot and hot sauce in a small bowl, stirring well. Set aside.

Coat a large nonstick skillet or wok with cooking spray; add sesame oil. Heat at medium-high heat until hot. Add broccoli, red pepper, onion and garlic and stir-fry 4 to 5 minutes or until vegetables are crisp-tender.

Add brown sugar mixture to vegetable mixture. Cook, stirring constantly, until thickened. Add water chestnuts and sesame seeds. Cook, stirring constantly, until heated.

Makes 6 servings (1 cup each)

Fat: 2 grams per serving

Fruit/Vegetable Servings: 2 per serving

Recipe from: *Low-Fat Ways to Stir-Fry* by Oxmoor House

Amazing Mayonnaise

Make homemade mayonnaise with buttermilk and very little oil.

1 tablespoon cornstarch

1-1/2 teaspoon dry mustard, preferably Colmans

1 teaspoon sugar

1/2 teaspoon salt, or more to taste

pinch of cayenne

3/4 cup buttermilk, low-fat

1 large egg

2 tablespoons fresh lemon juice

1 tablespoon olive oil, preferably extra-virgin.

In a medium saucepan, whisk cornstarch, mustard, sugar, salt and cayenne. Add 1/4 cup of the buttermilk and whisk to a smooth paste. Whisk in the egg and the remaining buttermilk until smooth.

Set the pan over medium-low heat and cook, whisking, until the mixture comes to a simmer and thickens. Continue to whisk for 15 seconds, then remove the pan from the heat.

Whisk in lemon juice and oil. Transfer the mayonnaise to a small bowl

and press a piece of plastic wrap directly on the surface to prevent a skin from forming. Let cool. (The mayonnaise can be stored in the refrigerator for up to 3 days; whisk briefly before using.)

Makes about 1 cup

Fat: 1 gram per tablespoon

Recipe from *Secrets of Low-Fat Cooking* by Eating Well

Modification - Curried Mayonnaise:

Great when making chicken or tuna salad

Use 1/2 cup Amazing Mayonnaise (recipe above).

Add 2 teaspoons curry powder and 1 teaspoon honey. Toast the curry powder in a dry skillet over very low heat for 1 minute; transfer to a small bowl and add mayonnaise and honey. Stir to blend. Makes about 1/2 cup. Fat: 1 gram per tablespoon.