Heart Disease and Diet

Meaty Matters

Can I eat any red meat like beef or pork?

Beef and pork can be included in your diet. Choose lean cuts of meat like:

top round	sirloin tip
bottom round	top sirloin
eye of round	tenderloin
arm roast	brisket
Lean cuts of pork are:	
tenderloin	loin chops
cured ham	fresh ham leg
Canadian Bacon	picnic shoulder

*Remove any visible fat even from lean cuts. Each tablespoon of fat you remove is about 13 grams of fat. Prepare meat without adding any fat.

How much meat can I have?

Limit your serving size to 3 ounces. That is about the size of a deck of cards. Enjoy up to 6 ounces of meat a day.

Can I eat fried chicken?

Save fried chicken for an occasional meal. When you do have fried chicken, reduce the serving size to 3 ounces. A half of a chicken breast can be as many as three servings! Try these tips with chicken.

- Remove the skin. You can cook with the skin on but remove it before eating.
- Prepare without adding fat.
- Use fat free BBQ sauce in baking and grilling.
- Try several new methods of cooking. Oven broil, bake in a fat-free sauce, pan fry with nonstick vegetable spray, microwave, steam or stir-fry.

Does it really matter if I trim the fat off?

Remember each one inch cube or one tablespoon of fat or drippings can be rounded off to 120 calories or 13 grams of fat.

Can I eat eastern North Carolina BBQ?

Yes, but not everyday. Choose a restaurant that separates the lean from the fat and skin before chopping. Or, order sliced meat and remove any visible fat. Unfortunately, the side dishes are usually high in fat. Choose a baked potato, roll and fruit if available. Coleslaw, mayonnaise, french fries, port rind, hushpuppies, and

cornsticks are all high in fat.

Can I eat shrimp, clams, crabs, scallops, and oysters?

Yes, although high in cholesterol, these are not high in fat and are an excellent source of omega-3 fatty acids. A serving is 3 ounces of these, just like meats. Three ounces is about 12 large shrimp, 4 large clams, 6 large scallops, or 6 medium oysters. Choose cooking methods that don't add fat and avoid sauces made with fat.

Compare the grams of fat:

3 oz	Fried	Broiled or Steamed
Shrimp	11	1 -no butter
Scallops	11	1 or oil
Clams	10	2
Oysters	11	4

What are omega-3 fatty acids and what foods are good sources?

Omega-3 fatty acids are essential fatty acids. What this means is that the body does not produce this fatty acid and therefore it has to come from the foods we eat. The American Heart Association recommends 1 gram fish oil capsule (180 mg EPA and 120 mg DHA) three times a day for people with heart disease. Doses more than 3 grams can increase your risk of bleeding. Good sources of omega-3 fatty acids are:

- Almonds
- Pecans
- Cashews
- Soy milk
- Tofu
- Soy proteins

- Fish Oils
- Walnuts
- Salmon
- Sardines
- Catfish
- Flax seed

Will fish oil supplements help lower my cholesterol?

There are no data to support the use of fish oil supplements for cholesterol reduction but they are important for heart health. You have to eat two or more fish meals per week to get the benefits from this type of oil found in fish. Remember when to broil, grill, or bake the fish since frying adds too much fat. If your triglycerides are also high your doctor might recommend fish oil. Flaxseed and fish oil are sources.

I am confused. Does drinking alcohol help or hurt people with heart disease?

You are confused because in the past, no alcohol was allowed when modifying diet to reduce heart disease. Now, moderate amounts appear to reduce risk. Women should not have more than one drink and men no more than two drinks a day. Remember, a drink is:

- 1.5 ounces of distilled alcohol
- 5 ounces of wine
- 12 ounces of beer

No health professionals suggest that you start drinking alcoholic beverages to reduce the risk of heart disease.

Fat Facts

What should I use in recipes that call for fat?

The goal is to reduce the total amount, especially of saturated fats you eat. First, decide if there is a lower fat recipe you can use. Check to see if the fat has to be used. Can you use less? Then use a recipe with oil instead of solid fat. Choose any of the following oils:

canola	peanut oil	olive oil
safflower	sunflower	corn

Look for baked good recipes that use yogurt, applesauce, and pureed prunes instead of fat. Write, call, or look up the websites to different food companies for lower fat recipes or goods. If reducing fat in your diet to less than 10% of your calories, make sure to get enough omega-3 fatty acids by using soy or canola oil.

Can I use butter and margarine?

Both are 100% fat, so go easy on using any at all. The American Heath Association still recommends margarine. Choose the produce with the least amount of saturated fat. Try to limit Trans Fatty Acids (TFA). There are some Trans fatty Acid Free products. They are fatty acids formed when vegetable oil is processed. The TFA's may raise the LDL cholesterol. If you are eating too many TFA's from processed foods you are probably eating too much fat. The Institute of Medicine recommends you eat as little trans fatty acid as possible.

What can I use instead of butter or margarine to season foods?

Try a reduced fat margarine, Molly McButter, Butter Bud Sprinkles, or McCormick Best O'Butter to get a butter flavor. Greens and other vegetables can be flavored with low sodium chicken, beef, or vegetable bouillon.

Should I use the margarines that actually reduce cholesterol?

Talk with your doctor, especially if you are taking other medications. The plant sterols in the margarine can stop some cholesterol from being absorbed. This can lead to lower total cholesterol and lower LDL-cholesterol. It took eating about 3 grams of the plant sterols a day to make an important difference (lower total cholesterol 10%, LDL cholesterol 14%). That means eating about ¹/₂ Tablespoon of this product every day.

Are there other foods with plant sterols?

Yes. Because plant sterols can reduce bad cholesterol it is being added to other foods. Minute Maid Healthwise has it added. Benecol chews are available, too. (www.benecol.com)

More Fat Tid Bits

Can I eat eggs?

You should limit yourself to no more than 4 egg yolks a week. In recipes, substitute 2 egg whites for 1 whole egg. Egg substitutes are also a choice.

What salad dressing should I use?

Read labels and select one that makes a claim about fat or calories. Then compare brands and flavors for the lowest in fat.

What type of milk and cream should I use?

Choose skim milk or nonfat milk for cooking and drinking. Experiment with fat-free half-and-half 'cream.' Use fat free sour cream or substitute fat-free yogurt for sour cream.

What cheeses can I use?

Regular cheese is high in fat. Use it sparingly. Choose the following:

- no fat or low fat cheddar cheese
- no fat cream cheese
- lowfat or nonfat cottage cheese
- part skim/skim ricotta cheese
- part skim mozzarella cheese

These words describe the fat content of foods.

Fat-Free - less than .5 gram of fat per serving Low-Fat - 3 grams or less fat per serving Reduced or Less Fat - has at least 1/4 less fat than the regular product Light, Lite - has at least 1/3 less fat than the regular product

Is it better to choose foods that have altered fat or cholesterol?

To lower your cholesterol choose the fat modified products. Your cholesterol level responds more to the amount of fat in the diet than to the amount of cholesterol you eat.

Soluble Dietary Fiber

Where can I get soluble fiber?

Oatmean and oat bran muffins or other muffins high in fiber and low in fat are good bread choices. A daily serving of oats may lower cholesterol by 3%. If you eat 17 grams of fiber daily, you could decrease your cholesterol by 6%. Vary the ways you add fiber to your diet by choosing the follow:

- Bran cereals
- Dry beans and peas
- Fruits
- Whole grain cereals and bread
- Vegetables
- Foods with psyllium added

Adults should get 14 grams of dietary fiber everyday for every 1,000 calories eaten. So if you eat 2,000 calories, you need 28 grams.

When increasing dietary fiber in my diet, should I drink more water?

Yes. The water and fiber together are needed for good bowel movement. Avoid gas and other GI complaints.

Will talking Metamucil® lower my cholesterol?

This product and products like this one contain a type of fiber called psyllium. It is found naturally in foods. It is also added to some foods now. These products have laxative effects. You should ask your doctor whether you should use them. It takes about 7 grams of psyllium to reduce cholesterol by 10%.

I read on a cereal box that psyllium can reduce the risk of heart disease. Is that true?

The medical community agrees that foods containing psyllium can help reduce the risk of heart disease. This is the FDA approved health claim for food products. The food product must contain at least 2.6 grams of psyllium per serving to make this claim.

Getting to the Heart of the Matter

Should I take antioxidants?

Try to get 5 servings of fruits and vegetables each day. A serving is a piece of fruit, 1/2 cup of cooked vegetables, or a whole cup of raw vegetables. The American Heart Association does not recommend supplementation. If you take antioxidant supplements, don't take more than the following:

- Vitamin E no more than 150 IU (100 mg)
- Vitamin C 250-500 mg

• Beta Carotene for non-smokers only 6-15 mg

Make sure you meet your daily requirements for:

- Zinc (12-15mg)
- Copper (1.5-3 mg)
- Selenium (50-70 mcg)
- Manganese (1.5-5 mcg)

The American Heart Association does not recommend supplementation at this time.

Do I need to avoid iron?

Ask your own doctor. It is not clear if high levels of iron in the blood increase people's risk for cardiovascular (heart) disease. Studies that measure iron intake, blood levels of iron, serum ferritin, and transferrin saturation, give mixed results. Some doctors are telling men and menopausal women who have other risks of heart disease to take supplements without iron. You may want a licensed dietitian to determine how much iron you are getting from food and supplements before you make a change. The daily need for men is 10 mg per day, 15 mg per day for women during childbearing years, 30 mg during pregnancy and breast feeding, and 10 mg after menopause.

Should I be taking folic acid to reduce my risk for heart disease?

The body needs methionine which is made from homocysteine. If there are not enough B vitamins, the conversion does not occur. The homocysteine builds up in the blood and may damage the lining of blood vessels. Cereal products in the US are fortified with folic acid. This folic acid reduces the risks of women having children with neural tube defects. It also reduces the risk of heart disease for people with high levels of homocysteine in their blood. It takes 400 mcg of folic acid a day (from food or

supplements) to reduce homocysteine levels. Have your diet analyzed for folic acid levels before you take more supplements. Taking too much folic acid can hide a vitamin B12 deficiency. Eating five servings of fruits and vegetables a day should provide enough B vitamins. Foods especially high are spinach, asparagus, beans, peas, orange juice, fortified breakfast cereals, and bread.

I read that niacin lowers cholesterol. Should I take it?

It takes a very high dose of niacin to have an effect upon your cholesterol level. At high levels, niacin acts like a drug. High doses of niacin can cause itching, rash, nervousness, hyperglycemia, hyperuricemia (too much uric acid in the blood), hepatitis, and peptic ulcer. It can cause severe flushing and dizziness.

I hear about other dietary supplements and herbal products. Should I use red yeast rice, guggulipid or take coenzyme Q10?

Always discuss your interest in taking dietary supplements with your doctor. The red yeast rice products available in the U.S. are not effective. Guggulipid has helped some but other people experience an increase in their bad cholesterol, so it's not recommended.

Some cardiologists recommend coenzyme Q10 to patients who have experienced heart failure in hopes of strengthening the muscle. Ask your doctor if this supplement will help you.

Can I drink green tea?

Black and green tea appear to have flavonoids that may help reduce risks of cancer and heart disease. It can't hurt. Drink about 4 cups per day and try and make at least two of those decaffeinated.

Do I need to eat soy foods?

Some of the potential benefits of eating soy are lowering both total and LDL cholesterol, and lowering blood pressure. The FDA approved a health claim that states 25 grams of soy protein per day may reduce the risk of heart disease. Read Nutrition Facts Labels. That amount can be found in ¹/₄ cup roasted soy nuts, ¹/₂ cup low fat tofu, or 2 cups of low fat soy milk.

Prepared by: Department of Family Medicine ECU School of Medicine Kathy Kolasa, Ph.D., RD, LDN Linda Walker, MS, RD, LDN Amanda McKee, BS Jenalyn Logan, BS North Carolina Cooperative Extension Food and Nutrition Specialist of Raleigh, Carolyn Lackey, Ph.D., RD Updated 1/05