



Women and Heart Disease

Heart disease is the concern of every woman today. You might think that breast cancer and osteoporosis are the 2 biggest diseases that affect women. But, women lose their lives to heart attack 5 times more often than breast cancer. About 8 million women in the United States are living with heart disease and 440,000 women have heart attacks every year (9,000 of those women are under the age of 45).

Because there is such a high likelihood you could get heart disease, it is important for you to talk to your health care provider about your risks and concerns about heart disease. Women in general are less likely to get heart disease until menopause. It is believed that estrogen, a female hormone, protects the heart until natural menopause when the estrogen level goes down. By the age of 60 and 65, women and men have the same risk of heart disease.

How Your Heart Works

Your heart is a muscular organ that works as a pump. It has 4 different chambers. Normally, your heart is the size of your fist.

We hear the pump working as the heart beats. A normal heart beats about 60 to 80 times every minute. Your heart pumps blood out to the rest of your body. This is important because blood carries oxygen and all of the tissues and organs in the body must have oxygen to live.

Blood leaving the heart travels through arteries and then returns to the heart from the tissues and organs through veins. Because the heart itself is a muscle, it also has arteries that supply it with blood and oxygen to help it work.

What causes heart disease?

The technical terms for heart disease are *coronary heart disease* (CHD) or *coronary artery disease* (CAD). Heart disease occurs when the arteries that feed the heart narrow and decrease the amount of

blood and oxygen that reach the heart muscle. These arteries are narrowed or clogged by cholesterol and fat deposits called *plaque*. The narrowing of the arteries is called *arteriosclerosis*. The plaque that forms in the arteries is hard and brittle and cause a hardening of the arteries called *atherosclerosis*.

When the heart doesn't get enough blood and oxygen you can feel chest pain, called *angina*. As a woman, you might have other symptoms like nausea, indigestion, unexplained fatigue, and back or jaw pain. These symptoms usually occur during either emotional or physical stress. Do not ignore these symptoms just because they aren't the typical chest pain that most men have.

A heart attack occurs when one of the arteries in the heart is totally blocked and part of the heart muscle doesn't get any blood at all. The complete blockage of an artery is usually from a blood clot on top of the cholesterol and fat deposit in the artery.

What increases your chance of heart disease?

There are some things that can hurt your heart. These are called *risk factors*. They include high cholesterol, high blood pressure, an unhealthy diet, lack of exercise, smoking, diabetes, and a family history of heart disease.

The good news is that you can improve all but your family history. By improving your risk factors, you will lower your chance of getting heart disease.

Cholesterol

High cholesterol is one of the risk factors for heart disease. Cholesterol is a waxy fat-like substance that your body needs to work normally. Your body makes the cholesterol that it needs for cells in your body in the brain, nerves, muscles, skin, and all of your organs. But, your body only needs a small amount of cholesterol to do these different jobs.

When there is too much cholesterol in your blood, it collects in the arteries, including the arteries in your heart, and forms plaque. This is what causes the narrowing in the arteries and leads to heart disease.

It is possible to measure the levels of cholesterol in your blood. The goal or target numbers for your cholesterol may change depending on what other risk factors you have. More than 50% of women (50 out of 100) have high cholesterol. Ask your health care provider what your target numbers should be.

There are three types of cholesterol:

- Low density lipoprotein (LDL)
- High density lipoprotein (HDL)
- Triglycerides

Low Density Lipoprotein

LDL is the “bad” cholesterol. It is the cholesterol that clogs your arteries, preventing blood flow. Your LDL level is one of the main predictors of your risk of heart disease. The goal of treatment for high cholesterol is to lower your LDL. If you have no other risk factors, the target level is below 160.

High Density Lipoprotein

HDL is the “good” cholesterol. It is the cholesterol that helps to get rid of the extra cholesterol in the blood. Your HDL cholesterol level should be above 45. Women need higher levels of HDL than men to protect their hearts.

Triglycerides

Triglycerides are one of the forms in which your body stores fat. This is often elevated when total cholesterol is high, LDL is high, and HDL is low. Women over 50 years old, with high triglycerides and no other risk factors, are at a higher risk for heart disease than men. The target number for triglycerides is under 200.

Blood Pressure

There is a high incidence of high blood pressure in American women. About 52% of women (52 out of 100) over age 45 have high blood pressure, which is called *hypertension*. Of those women, 70% of African American women (70 out of 100) and 60% of Caucasian women (60 out of 100) have high blood pressure.

If you have hypertension, your heart has to work harder and doesn't pump as well as it should. Over time, this will lead to an enlarged, weak heart. In addition, high blood pressure can lead to hardening of the arteries in the heart, called *atherosclerosis*. It can also affect your brain, causing stroke, and your kidneys, causing kidney failure.

What is blood pressure?

You have probably had your blood pressure checked when you've gone to see your health care provider. Or, you may have tried one of the automatic machines in a drug store. Blood pressure is a

measurement of the pressure the blood puts on the arteries as it is pumped throughout the body.

What do those numbers mean?

There are 2 numbers given in a blood pressure measurement. The top number is the *systolic pressure*. It measures the force of the blood when the heart beats. The bottom number is the *diastolic pressure*, which is the force in between heartbeats when the heart relaxes.

To write the blood pressure you write the systolic over the diastolic, such as 120/70 mmHg (millimeters of mercury). This is read, "120 over 70."

Normal blood pressure is a systolic (top) number less than 140 mmHg and a diastolic (bottom) number less than 80 mmHg. Your heart likes your blood pressure to stay in this normal range. Your doctor will help you to monitor your blood pressure when you go in for an exam. You can also find somewhere in your community to get it checked like a senior citizens' center, fire station, or community center. If you have your blood pressure checked and it is above normal, you need to schedule a visit with your health care provider to talk about ways to lower it.

What causes high blood pressure?

There are different causes of high blood pressure. Some of those causes are:

- Narrowing of arteries
- Increased blood volume
- Your heart beating faster or harder than it normally does

All of these causes will lead to increased pressure within the arteries in your body. Other medical problems can cause high blood pressure. We don't always know what causes high blood pressure.

Each person's blood pressure is unique just like each person's heartbeat is unique. Because of that, we can't say that there is one way to manage high blood pressure. Some people might require 1 medicine once a day. Others might require 3 different medicines. Still others might be able to lower their blood pressure by changing their diet and level of exercise.

Diet and exercise have been studied and proven to be effective in lowering blood pressure to some level. In other words, there will always be an improvement in your blood pressure if you improve your diet, exercise, and lose weight if you are overweight.

Eating Habits and Your Weight

You may already know that you are supposed to “eat right” and “lose weight.” The important thing to know is that when you eat a high-fat, high-cholesterol, and low-fiber diet, you greatly increase your risk of heart disease. You also increase your likelihood of getting high blood pressure and diabetes. The good news is that you have the power to control your diet and decrease your risk of getting these diseases.

When you are overweight, your heart is forced to work harder. About $\frac{1}{3}$ of all women are classified as being obese. Excess weight generally leads to raising your LDL “bad” cholesterol. When you lose weight you will lower triglycerides and raise HDL “good” cholesterol.

There are things you can do to change your diet and lower your risk of heart disease. You might want to ask your health care provider to recommend a dietitian or nutritionist to help you develop a diet plan. Always consult your health care provider before starting a new diet plan. Some popular diets can actually be harmful to you.

Dietary Fats

Your diet should be low in saturated fat, total fat, and cholesterol. Saturated fats raise your LDL “bad” cholesterol the most and are found in red meats, poultry, and dairy products. Hydrogenated fats are just as bad and are found in baked goods, some cereals, non-dairy creamers, and ice cream. One way to remember the “bad” fats is to think of them as being solid at room temperature, like shortening, lard, butter, and stick margarine.

Our bodies do need some fat and we can get that in the “good” fats and small amounts of the “bad” fats, like lean red meat and poultry. The “good” fats include:

- Polyunsaturated fats
- Monosaturated fats
- Omega 3 fatty acids

These “good” fats are found in sunflower, safflower, corn, peanut, olive, and canola oils. They are also found in soybeans, fish, flaxseed, and nuts.

Studies show a decrease in LDL “bad” cholesterol and decrease in heart disease risk when these “good” fats are substituted for “bad” fats in the diet. One study showed a 30% decrease in heart disease in women who ate 2 or more servings of fish every week. There are no studies that show taking fish oil supplements are as good. In other words, to get the protective effect on your heart, it is better to eat fish than take supplements.

Eating Right

- Increase your daily intake of fiber, fruits, and vegetables. Again, studies show that benefits for your heart come from good nutrition, not from taking vitamins and supplements.
- Most of the protein in your diet should come from nuts, soybeans, legumes, poultry, and fish.
- Be careful about switching to “fat-free” and “low-fat” substitutes, because they are often very high in calories. Start reading your food labels to become familiar with nutritional values and serving sizes. It will take time to change your shopping, cooking, and eating habits, but the time and hard work will pay off.
- For ideas to help you and your family eat healthy diet, visit the American Heart Association’s Nutrition Center at:
www.heart.org/HEARTORG/GettingHealthy/NutritionCenter/Nutrition-Center_UCM_001188_SubHomePage.jsp

Alcohol

A small amount of alcohol in the diet increases HDL “good” cholesterol but doesn’t affect the LDL “bad” cholesterol. It increases triglycerides.

But, drinking too much alcohol can damage your liver and your heart muscle, and lead to high blood pressure.

Do not think of drinking alcohol as a way to prevent heart disease. The National Heart Lung and Blood Institute recommends drinking less than 4 ounces of alcohol a week. If you drink more than this, you should make an effort to cut back.

For more information about women and alcohol, please visit:
<http://depts.washington.edu/uwcoe/healthtopics/alcohol/index.html>

Sedentary Lifestyle

Lack of exercise is a major risk factor for heart disease. Regular exercise can lower your risk of heart disease by 50%. Sadly, about 60% of women (60 out of 100) are physically inactive. Remember that your heart is a muscle – by exercising, you are not only getting the muscles in your arms and legs in shape, you are getting your heart in shape, too.

Regular exercise can lower LDL “bad” cholesterol, raise HDL “good” cholesterol, help regulate your blood sugar, and lower your blood pressure. Exercise will also increase the flexibility of your arteries and will slow the hardening of arteries.

Routine exercise doesn't have to mean belonging to a gym. Brisk walking is actually one of the best forms of exercise and can be done most anywhere and not cost you a thing. You can benefit from exercising for 30 minutes a day, at least 3 times a week. Always check with your health care provider before starting a new exercise program.

To read about the American Heart Association Exercise Guidelines, visit: www.americanheart.org/presenter.jhtml?identifier=2155

Smoking

If you smoke, you probably have heard that “smoking is bad for you.” It is especially bad for your heart.

The nicotine in cigarettes increases your heart rate and blood pressure. This makes your heart work harder than normal. It also *constricts* (tighten) your arteries, which limits the amount of oxygen that your tissues, heart, and other organs will receive.

If you smoke, you are more likely to have a heart attack 19 years earlier than if you didn't smoke at all. Over half of the heart attacks in middle-aged women are caused by smoking.

If you smoke, it is in your best interest and in your heart's best interest to quit smoking. The first thing you need to do is get motivated. Start by thinking about the positive things that will happen when you quit smoking such as:

- Overall better health
- Lower risk of health problems
- Money saved by not buying cigarettes

Many people need help to quit smoking. There are prescription medicines and stop smoking programs that can help you. Ask your health care provider for resources to help you quit smoking. Your friends and family can also be good support for you while you are trying to quit.

There is no evidence that cutting down on smoking helps your heart. You need to quit smoking to reduce your chances of heart disease.

To learn more about how to quit smoking, visit:

<http://depts.washington.edu/uwcoe/healthtopics/smoking/index.html>

Diabetes

Type 2 diabetes is a bigger risk factor for heart disease in women than it is for men. Also, women with diabetes are twice as likely to have heart attacks than women without diabetes. If you have diabetes, you

Questions ?

Your questions are important. Call your doctor or health care provider if you have questions or concerns. UWMC clinic staff are also available to help.

Women's Health Care Center, Roosevelt Clinic, 4245 Roosevelt Way: 206-598-5500

can greatly lower your risk of heart disease by treating high blood pressure and high cholesterol and losing weight.

To learn more about diabetes, visit:

<http://depts.washington.edu/uwcoe/healthtopics/diabetes.html>

Family History

One health factor you cannot change is your family history. This can also be referred to as *heredity* or *genetic pre-disposition*.

Heart disease does tend to “run in the family.” Your chance of getting heart disease increases when a parent or brother or sister has had a heart attack before the age of 50. While you cannot control what has happened to your family members, it is important to know your family history and to share it with your health care provider.

Changing Your Risk Factors

Do you want to know your personal risk for heart disease? Visit the American Heart Association's website and take the “Heart Attack Risk Assessment”:

www.heart.org/HEARTORG/Conditions/HeartAttack/HeartAttackTools/Resources/Heart-Attack-Risk-Assessment_UCM_303944_Article.jsp

For help to improve and modify your other risk factors, check out these websites:

- **Shape Up America!**
www.shapeup.org
- **Go Red for Women**
American Heart Association
www.goredforwomen.org/BetterU/index.aspx
- **Eat Right**
American Dietetic Association
www.eatright.org
- **Healthy Weight Meal Planner**
National Heart Lung and Blood Institute
<http://hp2010.nhlbihin.net/menuplanner/menu.cgi>

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