

Keeping Your Heart Healthy

Many women are not aware of their risk of heart disease. In the United States, it is the leading cause of death of women. Each year, more than 300,000 women die from heart disease. This compares to about 40,000 deaths from breast cancer.

A number of factors can increase your risk of heart disease. Most of these risk factors can be prevented. This pamphlet explains:

- Causes of heart disease
- Who is at risk
- Steps you can take to reduce your risk

Women should be aware of their risks for developing heart disease so they can take steps to reduce them.

Your Heart

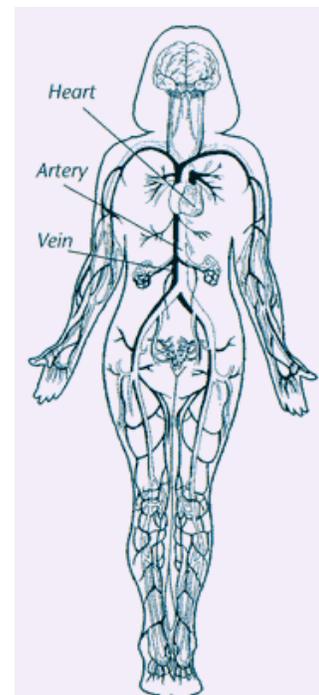
Your heart is a muscle that pumps blood through your body. Your heart and blood vessels (the cardiovascular system) carry oxygen-rich blood to the cells in your body. The cells need oxygen to work well. There are 2 different types of blood vessels: arteries and veins. Arteries carry oxygen-rich blood from the heart to the body. Veins carry blood back from the body to the heart.

Heart Disease

The vessels that supply blood to the heart are called the coronary arteries. The most common cause of heart disease is **coronary artery disease**. This disease is a narrowing of blood vessels to the heart by the buildup of plaque. Plaque is a fatty substance that forms in the arteries when too much **cholesterol** is present.

Cholesterol serves as a building block for cells and hormones. Most of the cholesterol in your body is made by the liver. Some comes from foods, such as meat and dairy products. There are several types of cholesterol. The 2 main types are:

1. HDL (high-density lipo-protein) helps prevent heart disease. This "good" cholesterol helps keep cholesterol from building up in the arteries. It moves from the blood vessels to the liver. In the liver, it is broken down to be passed from the body.
2. LDL (low-density lipo-protein) tends to stay in the body and build up on artery walls. This "bad" cholesterol



The heart pumps blood that is rich in oxygen through the arteries to the body. The veins carry blood back from the body to the heart.

causes plaque to form in the arteries and makes it harder for blood to flow through them.

Over time, plaque formed by cholesterol causes the arteries to harden and narrow. This is called **atherosclerosis**. Atherosclerosis can begin when a person is young. However, it may take decades before signs of heart disease appear.

When the blood vessels narrow, the supply of blood and, therefore, oxygen to the heart may be reduced. This can cause chest pain (angina). It also can lead to a heart attack, from which the heart tissues are damaged. Chest pain can be a sign that the heart may not be getting enough oxygen. However, not everyone with atherosclerosis has this symptom.

Who Is At Risk?

Certain factors increase a person's risk of heart disease. Some of these risk factors, such as age, cannot be changed. Other factors, such as one's cholesterol levels, can be changed.

A woman's risk of heart disease is higher if she:

- Is aged 55 years or older
- Has a family history of heart disease or heart attack
- Has a high total cholesterol or high LDL level
- Has high blood pressure
- Smokes cigarettes
- Does not exercise regularly
- Is obese
- Has **diabetes**

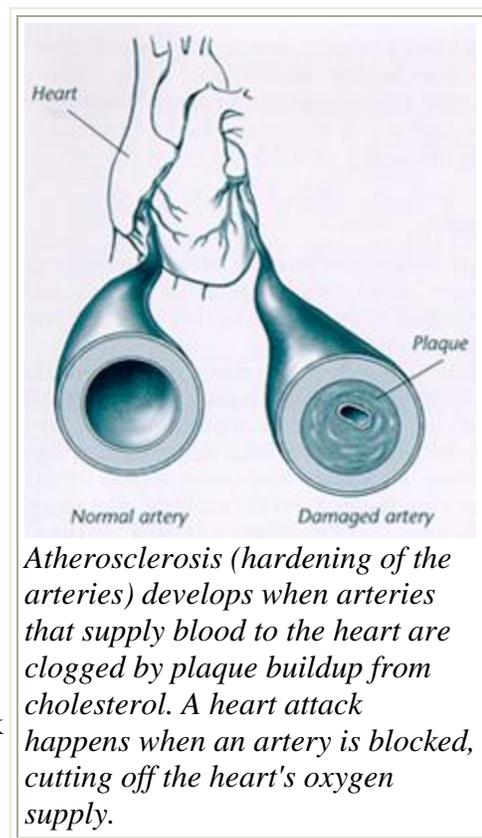
The risk of heart disease grows as the number of risk factors increases.

What You Can Do

You can make lifestyle changes to keep your heart healthy. For instance, changing your diet, not smoking, and getting daily exercise can help. These changes can reduce your risk of atherosclerosis and heart attack.

Lower Your Blood Pressure

Blood pressure is the force of blood against the walls of the blood vessels. When arteries are narrowed by plaque, blood pressure increases. Untreated high blood pressure (hypertension) can lead to heart disease.



Your blood pressure can be checked at your doctor's office. An inflatable cuff is wrapped around the arm to read your blood pressure.

1. The systolic blood pressure (the top or first number) is the force of blood in the arteries when your heart contracts.
2. The diastolic blood pressure (the bottom or second number) is the force of blood in the arteries when your heart relaxes.

A blood pressure reading includes 2 numbers:

A blood pressure reading of less than 120/80 is best. A reading of 140/90 or more is considered high and needs attention.

Heart Attack Warning Signs

Many heart attacks in women go unnoticed because women's symptoms are sometimes different from men's symptoms. Most men get a crushing pain in the chest. Some women have chest pain as their first symptom. Others have nausea along with chest pain.

Know the warning signs of a heart attack:

- Sudden, intense pressure or pain in the chest
- Shortness of breath
- Chest pain that spreads to the shoulders, neck, or arms
- Feelings of light-headedness, fainting, sweating, or nausea

If any of these symptoms lasts more than 5 minutes, you could be having a heart attack. Call an ambulance and go to the hospital.

While you are waiting, take an aspirin, lie down, and breathe slowly. This may help limit the damage to your heart muscle.

Exercise, weight control, and not smoking can help reduce your blood pressure. If these steps do not keep your blood pressure in the normal range, medication also may be needed.

Watch Your Cholesterol

High levels of LDL (bad cholesterol) in the blood increase your risk of heart disease. High blood cholesterol has no symptoms.

Your doctor can test your cholesterol levels. If you are aged 45 years or older, have your cholesterol checked at least every 5 years. If you have risk factors for heart disease, your doctor may suggest this test earlier or more often.

The box shows desirable cholesterol levels. If your total cholesterol level (total of LDL and HDL) is high, you can take steps to decrease it. For instance, you can reduce the amount of saturated fat in your diet. Saturated fats include animal fat and some vegetable

fats. Butter, lard, palm oil, and partially hydrogenated oils are saturated fats. Cheese, whole milk, and red meat also can be high in saturated fat.

Eating more fiber, such as oats, beans, fruit, and vegetables also can help reduce your total cholesterol level. Exercise, weight control, and not smoking can help, too. If these

diet and lifestyle changes don't lower your cholesterol enough, your doctor also might suggest medication.

Stop Smoking

Smoking is a major cause of heart disease among women. A woman's risk of heart disease increases the more she smokes and the longer she smokes.

Women aged 35 years and older who smoke and use oral contraceptives (birth control pills) have an even greater risk of heart attack. If you smoke, talk with your doctor about how to quit. The sooner you quit, the lower your chance of developing heart disease.

Stay Physically Active

Lack of physical activity can increase your risk of heart disease. Routine exercise helps control high blood pressure and weight.

Exercise also helps improve cholesterol levels. It can help increase HDL cholesterol and decrease LDL cholesterol levels. Try to be physically active for at least 30 minutes on most, if not all, days of the week.

Control Your Weight

Obesity increases your risk of heart disease, high blood pressure, and diabetes. A woman is obese if she is more than 30% above her ideal weight. Use the body mass index (BMI) chart to check if your weight is healthy.

The BMI compares a person's height to their weight to see if they are overweight. Having a BMI of 20-24 is normal, and 25-29.9 is overweight. A woman with a score of 30 or higher is obese.

Have Your Cholesterol Checked

The amount of HDL, LDL, and total cholesterol in your blood can be checked with a simple blood test. In general, the lower your total cholesterol level, the better. The table below shows desirable cholesterol levels in bold type.

Level (mg/dL)	Category
HDL (Good) Cholesterol	
Less than 40	Low
60 or above	Desirable (high)
LDL (Bad) Cholesterol	
Less than 100	Optimal
100–129	Near optimal/above optimal
130–159	Borderline high
160–189	High
190 or above	Very high
Total Cholesterol	
Less than 200	Desirable
200–239	Borderline high
240 or above	High

Body Mass Index Chart

To calculate your body mass index (BMI), find your height in inches in the left column. Next, read across the line to find your weight in pounds. The number at the top of that column is your BMI.

	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Height (inches)	Weight (pounds)													
58	91	96	100	105	110	115	119	124	129	134	138	143	148	153
59	94	99	104	109	114	119	124	128	133	138	143	148	153	158
60	97	102	107	112	118	123	128	133	138	143	148	153	158	163
61	100	106	111	116	122	127	132	137	143	148	153	158	164	169
62	104	109	115	120	126	131	136	142	147	153	158	164	169	175
63	107	113	118	124	130	135	141	146	152	158	163	169	175	180
64	110	116	122	128	134	140	145	151	157	163	169	174	180	186
65	114	120	126	132	138	144	150	156	162	168	174	180	186	192
66	118	124	130	136	142	148	155	161	167	173	179	186	192	198
67	121	127	134	140	146	153	159	166	172	178	185	191	198	204
68	125	131	138	144	151	158	164	171	177	184	190	197	203	210
69	128	135	142	149	155	162	169	176	182	189	196	203	209	216
70	132	139	146	153	160	167	174	181	188	195	202	209	216	222
71	136	143	150	157	165	172	179	186	193	200	208	215	222	229
72	140	147	154	162	169	177	184	191	199	206	213	221	228	235
73	144	151	159	166	174	182	189	197	204	212	219	227	235	242
74	148	155	163	171	179	186	194	202	210	218	225	233	241	249

Source: National Heart, Lung, and Blood Institute. Clinical guidelines on the identification, evaluation, and treatment of overweight and obesity in adults. U.S. Department of Health and Human Services, 1998 June: 139

The shape of your body is also a factor in keeping a healthy weight. Women with fat around the abdomen (apple-shaped) are at higher risk for heart disease than are women who have extra weight around the hips and thighs (pear-shaped).

Maintaining a healthy weight can decrease your chance of heart problems. If you need to lose weight, talk with your doctor about a diet and exercise plan that is best for you.

There are exercise plans designed especially for certain women, such as older women or those with health problems. Some type of exercise is almost always of benefit. Rarely does a condition exclude you from all forms of exercise.

If it has been some time since you've exercised regularly, it's best to start slowly. Begin with as little as 5 minutes a day and add 5 more minutes a week until you can stay active for 30 minutes a day.

Plan your exercise program to suit your interests and lifestyle. If you choose activities that you like, you're more likely to stick to it, which is most important. For example, gardening and dancing are great forms of exercise. Don't forget to count everyday chores and activities, such as climbing stairs, carrying bags, and washing the car. The harder you exercise, the more calories you burn.

Manage Your Diabetes

Diabetes increases a woman's chance of developing heart problems. Diabetes causes increased levels of glucose (sugar) in the blood. Women with diabetes often have other risk factors for heart disease. These include high cholesterol, high blood pressure, and obesity.

If you have diabetes, have your glucose level checked often. Try to keep it at a normal level. Diabetes can be controlled with diet, exercise, and sometimes medication.

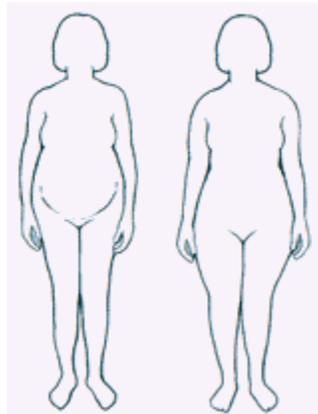
Treatment

Lifestyle changes can help keep your heart healthy. These changes include lowering the amount of fat and cholesterol in your diet. They also include staying active, not smoking, and controlling your weight. Talk with your doctor about how to make lifestyle changes.

If lifestyle changes alone are not enough, your doctor may suggest medications. They could help decrease your cholesterol or blood pressure levels. Your doctor also may prescribe medications if you have diabetes.

Menopause and Heart Health

The rate of heart disease increases with age and after menopause. Some women who have reached menopause have used *hormone therapy (HT)* to protect against heart disease. Today, HT is no longer recommended for this protection. Talk with your doctor about HT and menopause. He or she can advise you about the benefits and risks for you.



Apple-shaped Pear-shaped

Women who carry fat around the abdomen (apple-shaped) are more at risk for heart disease than women who gain extra pounds around their hips and thighs (pear-shaped).

Finally...

Heart disease is as much a threat to women as it is to men. Women should be aware of their risks for developing heart disease so they can take steps to reduce them.

Talk with your doctor about getting your cholesterol levels and blood pressure checked. Watching your cholesterol levels and blood pressure can help you know if you should make needed lifestyle changes. All women who smoke should try to quit. They also should try to eat a low-fat diet, stay physically active, and maintain a healthy weight.

Glossary

Atherosclerosis: Narrowing and clogging of the arteries by a buildup of plaque deposited in vessel walls; also called hardening of arteries.

Cholesterol: A natural substance that serves as a building block for cells and hormones and helps to carry fat through the blood vessels for use or storage in other parts of the body.

Coronary Artery Disease: A disease in which the arteries that supply blood to the heart are narrowed by the buildup of cholesterol and other deposits in the walls of the arteries.

Diabetes: A condition in which the level of sugar in the blood is too high.

Hormone Therapy (HT): Treatment in which estrogen, and often progestin, is taken to help some of the symptoms caused by the low levels of these hormones.