



Heart Health for Women

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What is cardiovascular disease (CVD)?

Cardiovascular disease (CVD) is the leading cause of death in both men and women in the United States. CVD is a general term for diseases that affect the heart and blood vessels. Many are caused by the buildup of a waxy substance called **plaque** in the **arteries**. Plaque can narrow and harden the arteries, a condition called **atherosclerosis**. It can take several decades for atherosclerosis to develop.

What are the different types of CVD?

There are several types of CVD. The type of CVD depends on where atherosclerosis occurs in the body:

- **Coronary artery disease** affects the arteries that supply the heart with blood.
- **Peripheral artery disease** affects arteries that supply the other organs in your body.
- **Cerebrovascular disease** affects arteries that supply the brain.

How can atherosclerosis lead to a heart attack or stroke?

Atherosclerosis makes it hard for blood to move through the arteries. If blood flow is blocked in a coronary artery, it causes a **heart attack**. If this happens in an artery in the brain, it can cause an **ischemic stroke**. If an artery ruptures in the brain, it is called a **hemorrhagic stroke**.

Is CVD different for women and men?

Women have unique risk factors for CVD that men do not share. Women also get different types of CVD than men. CVD in men is more likely to cause heart disease. CVD in women is more likely to cause stroke. Stroke can cause lifelong disability in those who survive. Heart attack symptoms in women can be different from those in men. All women need to learn these symptoms and call 9-1-1 if they experience them.

What are the risk factors for CVD?

Some risk factors for CVD cannot be changed, whereas others can be altered by making lifestyle changes or treating certain medical conditions. Some of the risk factors include the following:

- Age—As people age, their risk of CVD increases. Women see an increase in risk from ages 55 years to 64 years—when most have gone through **menopause**.
- High blood pressure—Blood pressure is the force the heart uses to move blood through the blood vessels to the organs and tissues. When blood pressure is too high (a condition called **hypertension**), it can damage the vessel walls. Damaged areas provide an ideal place for plaque to form. High blood pressure is a key risk factor for CVD in women and is the most common risk factor for stroke. Women should have their blood pressure checked regularly and get treatment if it is high. Lifestyle changes as well as medications are used to treat high blood pressure.
- Abnormal **triglyceride** and **cholesterol** levels—Triglycerides are the most common form of fat in the body and provide energy to power the body's activities. Cholesterol is a building block for cells and **hormones**. High-density lipoprotein (HDL or "good cholesterol") helps prevent heart disease. It picks up cholesterol in the bloodstream and takes it to the liver where it is broken down. Low-density lipoprotein (LDL or "bad cholesterol") can collect in the walls of blood vessels. Too much LDL in the walls of the arteries can trigger a response by the body's immune system called **inflammation**. Inflammation can lead to a buildup of plaque in the arteries and eventually to atherosclerosis.
- **Diabetes mellitus**—Diabetes causes high levels of **glucose** in the blood. Health problems, including CVD, can arise if blood glucose levels are not controlled. Risk factors for type 2 diabetes include being overweight, lack of exercise, abnormal cholesterol levels, and a higher-than-normal level of glucose in the blood (a condition called prediabetes).
- Lifestyle factors—Smoking, lack of exercise, and being overweight are risk factors for CVD.

What are the risk factors for CVD that are unique to women?

Risk factors for CVD that are unique to women include the following:

- **Gestational hypertension**—Having high blood pressure during pregnancy increases the risk of having CVD and high blood pressure later in life. The risk of serious blood pressure-related complications with a future pregnancy also is increased.
- **Preeclampsia**—This disorder can occur during pregnancy or after childbirth. If it is not diagnosed and treated, it can lead to serious health problems. Women who have had preeclampsia are at greater risk of developing CVD.
- **Gestational diabetes**—Diabetes that first appears during pregnancy increases the risk of developing diabetes and CVD after pregnancy. Women who have had gestational diabetes should be tested for diabetes 6–12 weeks after childbirth and then every 3 years.
- **Polycystic ovary syndrome (PCOS)**—PCOS is a leading cause of infertility that can affect all areas of the body, not just the reproductive system. Having PCOS increases the risk of diabetes and may increase the risk of CVD.
- Certain **autoimmune disorders**—Diseases such as lupus or rheumatoid arthritis, which are more common in women, are associated with an increased risk of CVD. Screening for CVD is recommended for women with these disorders.
- Hormonal birth control methods—Combined hormonal birth control methods contain both **estrogen** and **progestin**. They include the birth control pill, patch, and vaginal ring. Women using these methods have a small increased risk of stroke compared with nonusers. This risk is higher for women 35 and older who smoke; women with additional risk factors for stroke, such as high blood pressure; and women who have migraine headaches with **aura**. These methods are not recommended for women with these risk factors.
- Hormone therapy for menopause—Combined hormone therapy (estrogen and progestin) is linked to a small increased risk of heart attack. For this reason, combined hormone therapy should not be used solely to protect against heart disease. Both combined hormone therapy and estrogen-only therapy are associated with a small increased risk of stroke.

How can I lower my risk of CVD?

All women need to have regular screening tests for diabetes and cholesterol levels and to have their blood pressure and weight measured. When and how often you should have these tests depend on your age and risk factors. If you are at risk of CVD, lifestyle changes usually are recommended first. If lifestyle changes alone are not enough, or you are at high risk of CVD, your doctor or other health care professional may suggest medications to treat high blood pressure or lower your cholesterol levels.

What is a heart-healthy lifestyle?

Living a heart-healthy lifestyle means eating a healthy diet, limiting alcohol, staying at a healthy weight, not smoking, and getting daily exercise.

What is a heart-healthy diet?

A heart-healthy diet stresses vegetables, fruits, beans, and low-fat dairy products; includes fish and poultry; and limits red meat, sugary foods and drinks, and sodium. Cutting down on the amount of fast food or processed food, which is loaded with fat, salt, and sugar, is a great way to start eating more healthfully.

The type of fat that you eat is important. Most of the fat that you eat should be unsaturated fats. Unsaturated fats come mostly from plants like olives, beans, and seeds. They also are found in fish, especially fatty fish like salmon. You should eat fish at least twice a week.

Increasing your intake of fiber also can help lower your risk of heart disease and diabetes. Foods that are good sources of fiber include fruits, vegetables, and whole-grain foods.

Moderate alcohol use—no more than 1 drink a day for women—may help decrease the risk of heart disease in those who are middle aged or older. But drinking at more than a moderate level can increase the risk of CVD as well as other serious health problems, such as cancer.

Why is it important to control my weight?

Obesity and being overweight increase the risk of many health problems, including heart disease, high blood pressure, and diabetes. Weight loss is recommended if you are overweight or obese. Your doctor or other health care professional may recommend a diet and exercise plan that can help you lose weight safely and effectively. Medications to help with weight loss or bariatric surgery (weight-loss surgery) may be options for some obese people.

Why is it important to quit smoking?

Smoking is a major cause of heart disease. Your risk of heart disease increases the more you smoke and the longer you smoke. Female smokers have a higher risk of heart disease than male smokers. If you smoke, quit. You can get help from your doctor or other health care professional and from “quit lines” that have been set up in every state. Call 1-800-QUIT-NOW to find out how to access the quit line in your area.

Why is it important to stay active?

Lack of physical activity can increase your risk of CVD. Regular exercise can strengthen your heart and promote the health of your blood vessels. It helps boost your “good cholesterol” levels and lower blood pressure levels, which can reduce your risk of heart disease and stroke.

The Centers for Disease Control and Prevention recommend getting at least 150 minutes of exercise every week. You can divide the 150 minutes into 30-minute workouts on 5 days per week or into smaller 10-minute periods throughout each day.

Glossary

Arteries: Blood vessels that carry oxygenated blood from the heart to the rest of the body.

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

Aura: A sensation or feeling, such as flashing lights, a particular smell, dizziness, or seeing spots, experienced just before the onset of certain disorders like migraine attacks or epileptic seizures.

Autoimmune Disorders: Conditions in which the body attacks its own tissues.

Cardiovascular Disease (CVD): Diseases of the heart and blood vessels.

Cerebrovascular Disease: Diseases that affect the blood vessels in the brain.

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 Mellitus: A condition in which the levels of sugar in the blood are too high.

Estrogen: A female hormone produced in the ovaries.

Gestational Diabetes: Diabetes that arises during pregnancy.

Gestational Hypertension: New-onset high blood pressure that occurs after 20 weeks of pregnancy.

Glucose: A sugar that is present in the blood and is the body's main source of fuel.

Heart Attack: Damage to an area of heart muscle that occurs when its blood supply is interrupted. It almost always is caused by narrowing or blockage of the arteries in the heart.

Hemorrhagic Stroke: A type of stroke in which a blood vessel in the brain ruptures (bursts).

Hormones: Substances made in the body by cells or organs that control the function of cells or organs. An example is estrogen, which controls the function of female reproductive organs.

Hypertension: High blood pressure.

Inflammation: Pain, swelling, redness, and irritation of tissues in the body.

Ischemic Stroke: A sudden interruption of blood flow to all or part of the brain, caused by blockage of a blood vessel in the brain and often resulting in loss of consciousness and temporary or permanent paralysis.

Menopause: The time in a woman's life when menstruation stops; defined as the absence of menstrual periods for 1 year.

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

Plaque: A waxy substance made up of cholesterol and different types of cells that forms within the walls of arteries and causes atherosclerosis.

Polycystic Ovary Syndrome (PCOS): A condition characterized by two of the following three features: the presence of growths called cysts on the ovaries, irregular menstrual periods, and an increase in the levels of certain hormones.

Preeclampsia: A disorder that can occur during pregnancy or after childbirth in which there is high blood pressure and other signs of organ injury, such as an abnormal amount of protein in the urine, a low number of platelets, abnormal kidney or liver function, pain over the upper abdomen, fluid in the lungs, or a severe headache or changes in vision.

Progestin: A synthetic form of progesterone that is similar to the hormone produced naturally by the body.

Triglyceride: A form of body fat found in the blood and tissues. High levels are associated with cardiovascular disease.

If you have further questions, contact your obstetrician–gynecologist.

FAQ122: Designed as an aid to patients, this document sets forth current information and opinions related to women's health. The information does not dictate an exclusive course of treatment or procedure to be followed and should not be construed as excluding other acceptable methods of practice. Variations, taking into account the needs of the individual patient, resources, and limitations unique to the institution or type of practice, may be appropriate.

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