Heart Disease Risk Factors

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En español

Cardiovascular disease can take many forms: **high blood pressure**, **coronary artery disease**, **valvular heart disease**, **stroke,** or **arrhythmias** (irregular heartbeat). According to the World Health Organization, cardiovascular disease causes more than 17 million deaths in the world each year and is responsible for half of all deaths in the United States.

Coronary artery disease, the most common form of cardiovascular disease, is the leading cause of death in America today. Cancer, the second largest killer, accounts for a little more than half as many deaths.

In the United States, more than 80 million Americans have some form of cardiovascular disease. But thanks to many studies involving thousands of patients, researchers have identified certain factors that play important roles in a person's chances of developing heart disease. These are called risk factors.

Risk factors are divided into two categories: major and contributing. Major risk factors have been proven to increase your risk of heart disease. Contributing risk factors can lead to an increased risk of heart disease.

The more risk factors you have, the more likely you are to develop heart disease. Some risk factors can be changed, treated, or modified, and some cannot. But by controlling as many risk factors as possible through lifestyle changes, medicines, or both, you can reduce your risk of heart disease.

Major Risk Factors

High Blood Pressure (Hypertension). High blood pressure increases your risk of heart disease, heart attack, and stroke. If you are obese, smoke, or have high blood cholesterol levels along with high blood pressure, your risk of heart disease or stroke greatly increases.

Blood pressure can vary with activity and age, but a normal reading for a healthy adult who is resting should be 120/80.

High Blood Cholesterol. One of the major risk factors for heart disease is high blood cholesterol. Cholesterol, a fat-like substance carried in your blood, is found in all of your body's cells. Your liver produces all of the cholesterol your body needs to form cell membranes and to make certain hormones. Extra cholesterol enters your body when you eat foods that come from animals (meats, eggs, and dairy products) or are high in saturated fat.

Too much low-density lipoprotein (LDL or "bad cholesterol") in the blood causes plaque to form on artery walls, starting a disease process called atherosclerosis. When plaque builds up in the coronary arteries that supply blood to the heart, you are at greater risk of having a heart attack.

Diabetes. Heart problems are the leading cause of death among people with diabetes, especially in the case of adult-onset or Type 2 diabetes (also known as non-insulin-dependent diabetes). Certain racial and ethnic groups (African Americans, Hispanics, Asian and Pacific Islanders, and Native Americans) have a greater risk of developing diabetes. The American Heart Association estimates that 65% of patients with diabetes die of some form of cardiovascular disease. If you know that you have diabetes, you should already be under a doctor's care, because good control of blood sugar levels can reduce your risk. If you think you may have diabetes but are not sure, see your doctor for tests.

Obesity and Overweight. Extra weight can lead to increased high cholesterol levels, high blood pressure, and diabetes, all major risk factors for heart disease.

Doctors measure obesity in terms of body mass index (BMI), which is a formula of kilograms divided by height in meters squared (BMI =W [kg]/H [m^2]). According to the National Heart, Lung, and Blood Institute (NHLBI), being overweight is defined as having a BMI over 25. Those with a number over 30 are considered obese. You can find out your BMI by using the calculator below. Then, take that value and find your body composition in the table below the calculator.

Smoking. Most people know that cigarette and tobacco smoking increases your risk of lung cancer, but few realize that it also greatly increases the risk of heart disease and peripheral vascular disease (disease in the vessels that supply blood to the arms and legs). According to the American Heart Association, more than 480,000 Americans die each year of smoking-related illnesses. Many of these deaths are because of the effects of smoking on the heart and blood vessels.

Smoking increases heart rate, tightens major arteries, and can create irregularities in the timing of heartbeats, all of which make your heart work harder. Smoking also raises blood pressure, another major risk factor. Although nicotine is the main active agent in cigarette smoke, other chemicals and compounds like tar and carbon monoxide are also harmful to your heart in many ways.

Physical Inactivity. People who are not active have a greater risk of heart attack than do people who exercise regularly. Exercise burns calories to help maintain a healthy weight, helps to control cholesterol levels and diabetes, and may lower blood pressure. Exercise also strengthens the heart muscle and makes the arteries more flexible. Those who actively burn 500 to 3500 calories per week, either at work or through exercise, can expect to live longer than people who do not exercise. Even moderate-intensity exercise is helpful if done regularly.

Gender. Overall, men have a higher risk of heart attack than women. But the difference narrows after women reach menopause. After the age of 65, the risk of heart disease is about the same between the sexes when other risk factors are similar. Cardiovascular diseases affect more women than men and heart attacks are generally more severe in women than in men.

Heredity. Heart disease tends to run in families. For example, if your parents or siblings had a heart or circulatory problem before age 55, then you are at greater risk for heart disease than someone who does not have that family history. Risk factors (including high blood pressure, diabetes, and obesity) may also be passed from one generation to another.

Some forms of cardiovascular disease are more common among certain racial and ethnic groups. For example, studies have shown that African Americans have more severe high blood pressure and a greater risk of heart disease than Caucasians.

Age. Older age is a risk factor for heart disease. In fact, about 4 of every 5 deaths due to heart disease occur in people older than 65. As we age, our hearts tend not to work as well. The heart's walls may thicken and arteries may stiffen and harden, making the heart less able to pump blood to the muscles of the body. Because of these changes, the risk of developing cardiovascular disease increases with age. Because of their sex hormones, women are usually protected from heart disease until menopause, when their risk increases.

Contributing Risk Factors

Stress. Stress is considered a contributing risk factor for heart disease. The effects of emotional stress, behavior habits, and socioeconomic status on the risk of heart disease and heart attack are still being studied.

Researchers have identified several reasons why stress may affect the heart.

- Stressful situations raise your heart rate and blood pressure, increasing your heart's need for oxygen. This increased demand for oxygen can lead to ischemia (insufficient oxygen-rich blood getting to the tissues) or bring on angina (chest pain).

- During times of stress, the nervous system releases extra hormones (most often adrenaline). These hormones raise blood pressure, which can injure the lining of the arteries. When the arteries heal, the walls may harden or thicken, making it easier for plaque to build up.
- Stress also increases the amount of blood clotting factors that circulate in your blood, making it more likely that a clot will form. Clots may then block an artery narrowed by plaque and cause a heart attack.
- Stress may also contribute to other risk factors. For example, people who are stressed may overeat for comfort, start smoking, or smoke more than they normally would.

Sex hormones. Sex hormones appear to play a role in heart disease. Among women younger than 40, heart disease is rare. But between the ages 40 and 65, around the time when most women go through menopause, the chances that a woman will have a heart attack greatly increase. From 65 onward, women make up about half of all heart attack victims.

Birth control pills. Early types of birth control pills contained high levels of estrogen and progestin, and taking these pills increased the risk of heart disease and stroke, especially in women older than 35 who smoked. But birth control pills today contain much lower doses of hormones and are considered safe for women younger than 35 who do not smoke or have high blood pressure.

But if you smoke or have other risk factors, birth control pills will increase your risk of heart disease and blood clots, especially if you are older than 35. According to the American Heart Association, women who take birth control pills should have yearly check-ups that test blood pressure, triglyceride, and glucose levels.

Alcohol. Studies have shown that the risk of heart disease in people who drink **moderate**amounts of alcohol is lower than in nondrinkers. Experts say that moderate intake is an average of one to two drinks per day for men and one drink per day for women. One drink is defined as 1½ fluid ounces (fl oz) of 80-proof spirits, 1 fl oz of 100-proof spirits, 4 fl oz of wine, or 12 fl oz of beer. **But drinking more than a moderate amount of alcohol can cause heart-related problems such as high blood pressure, stroke, irregular heartbeats, and cardiomyopathy (disease of the heart muscle).** And the average drink has between 100 and 200 calories. Calories from alcohol often add fat to the body, which may increase the risk of heart disease. It is not recommended that nondrinkers start using alcohol or that drinkers increase the amount that they drink.

It is never too late—or too early—to begin improving heart health. Some risk factors can be controlled, while others cannot. But, by eliminating risk factors that you can change and by properly managing those that you cannot control, you may greatly reduce your risk of heart disease.