

## What is Heart Disease?

**Also known as cardiovascular disease**, heart disease is the leading cause of death for both men and women in the U.S. Your age and family history are strong indicators of risk that cannot be changed. Controllable risk factors, influenced by the behaviors and choices we make on a daily basis, include smoking, high blood pressure, poor diet, over-eating and lack of exercise.

Heart disease begins with a process called atherosclerosis where plaque builds up in arteries (blood vessels) which can begin as early as childhood. Atherosclerosis is typically a slow progressive condition. By middle age or older, signs and symptoms

of heart disease may occur. In men, the risk of heart disease increases after age 45 whereas in women it is after age 55. Having a family history of heart disease increases risk too. Our lifestyle choices also play a major role in how fast symptoms of atherosclerosis develop.



Atherosclerosis begins with damage to arteries in the heart. The artery wall lining can become injured and inflamed for different reasons, such as a poor diet, smoking, high blood pressure, high blood sugar and/or high LDL cholesterol. Inflammation weakens and scars the artery wall lining making it easier for cholesterol

to attach, accumulate, and form plaque. Over time the plaque continues to grow. Inflammation also plays a role in plaque rupture. A blood clot forms around the ruptured plaque and can cause a blocked artery, starving the surrounding tissue of oxygen. If blood flow isn't quickly restored, it could result in a heart attack causing heart damage.

### **Heart disease is diagnosed based on medical history, family history, risk factors and results of blood tests and procedures.**

- Blood tests including lipid tests like high density lipoprotein (HDL), low density lipoprotein (LDL), triglycerides; markers of inflammation like myeloperoxidase (MPO), LpPLA2, high sensitivity C-reactive protein (hs-CRP); metabolic markers like hemoglobin A1c, insulin resistance, glucose; and genetic tests like apolipoprotein E (ApoE) genotype can provide information on your heart disease risk.
- An ECG (electrocardiogram) is a simple test that looks at the speed and rhythm of your heart beats. Through this test, your doctor may see a sign of a previous or current heart attack.
- Stress tests involve exercising to make your heart work hard while being monitored for signs of heart disease like changes in blood pressure, shortness of breath or chest pain, or abnormal changes in your heart beat.
- An echocardiogram uses sound waves to detect previous injury to the heart and to see how well your heart and heart valves are working.

#### **HOW TO DETECT A DAMAGED HEART**

Procedures commonly used to diagnose cardiovascular disease:

##### **BLOOD TESTS**

ELECTROCARDIOGRAM (ECG)

##### **STRESS TESTS**

ECHOCARDIOGRAM

CARDIAC CATHETERIZATION

- Cardiac catheterization is a test that uses a tube inserted into the coronary arteries of the heart with a special type of dye to look inside your arteries. Blood flow through your heart can be studied to determine if you have blockages in the coronary arteries which are the main arteries of your heart.

**1 in 3**  
Americans suffer from heart disease, it is the **leading cause of death** for both men and women in the United States.

One in three Americans suffer from heart disease. For most, it is preventable and partly reversible. The growth of arterial plaques can be delayed and possibly halted by lifestyle choices such as quitting smoking, controlling blood pressure, sugar and cholesterol, becoming physically active and eating heart-healthy foods.

Finally, stress reduction and social support are also important in keeping your heart healthy. Sometimes the way we cope with stress is to take part in unhealthy habits like smoking, drinking alcohol, or eating high fat foods. The first step toward making change is awareness, so keeping a food and mood journal will help you to identify problem foods in relation to your mood or stress level. Working with a lifestyle coach could also help you learn a variety of stress reduction techniques.

While you can't change your family history of heart disease or your age, you can change your risk by making healthier choices today to prevent or halt heart disease.