

Disorders of the Cardiovascular System

By Allen Smith, eHow User



Regardless of where you live, what you do for a living or where your interests lie, chances are that you have already fallen victim to some degree of cardiovascular disease. According to the American Heart Association, over 80,000,000 Americans have one form or another of cardiovascular disease. Some of the most common cardiovascular diseases include "heart disease," "hypertension," "atherosclerosis," "diabetes" and "peripheral artery disease" or "PAD."

Heart Disease

Heart disease is a broad term that includes any disease of the heart muscle. These include "coronary artery disease," "congenital heart disease," "ischemia," "hypertensive cardiomyopathy," "congestive heart failure," "cardiac arrhythmias" and "valvular heart disease." By far, the most prevalent disease of the heart is coronary artery disease. The coronary arteries are the vessels that supply blood to the heart muscle itself. Over time, the coronary arteries, similar to other major arteries, can become occluded with "plaque" from "atherosclerosis," causing reduced blood flow to the heart. When this happens, the victim may experience chest pain (called "angina") or may experience a heart attack.

Some heart disease has nothing to do with diet or lifestyle. In the cases of congenital or valvular heart disease, the victim inherits the condition at birth. Fortunately, most of these conditions are reparable through surgery, and the patient can continue to live a healthy, productive life. Other heart diseases such as coronary heart disease, ischemia, hypertensive cardiomyopathy and congestive heart failure are often the result of sedentary living, poor diet and other lifestyle choices.

Hypertension

Hypertension is also called "high blood pressure" and affects over 73,000,000 Americans. One of the "silent diseases," high blood pressure is often an inherited disease that typically appears during the individual's midlife years. It's called one of the silent diseases because it is symptomless and people often have it for years before being diagnosed. High blood pressure is typically caused by the failure of the arteries to distend when blood is pushed through them by the heart. It can also be caused by the build-up of "plaque" that leads to "atherosclerosis"---also called "narrowing" or "hardening" of the arteries. If left untreated, hypertension can result in life-threatening consequences leading to heart attack or stroke. Fortunately, it is a treatable disease through diet, [exercise](#), stress management, medications or a combination of all of these.

Atherosclerosis

Atherosclerosis is a form of artery disease. It is caused by the buildup of calcified "plaque" over time that results in the narrowing of the internal dimensions of the arteries. If enough plaque accumulates, it can completely occlude the artery, cutting off blood flow to the areas it supplies. Another complication of atherosclerosis is an "embolism," where a piece of plaque breaks away from the lining of the artery and [travels](#) downstream until it ultimately occludes the blood flow.

Diabetes

Diabetes (often called "Diabetes Mellitus") is a condition that prevents the body from properly using glucose in the blood. Over 23.6 million Americans are affected by the disease that is categorized into "type I" or "insulin dependent" or "type II" or "insulin independent" diabetes. In type I diabetes, the pancreas fails to make enough "insulin." Insulin is an important hormone that controls how the tissues of the body use glucose to produce energy. The typical treatment of type I diabetes includes diet, exercise, injectable insulin, oral medications or a combination of all of these. Type II diabetics produce enough insulin, but the body is "resistant" to it. Since the tissues cannot use the existing insulin, the result is the same as type I diabetes: there is too much glucose circulating in the blood. The dangers associated with unmanaged diabetes includes an entire host of complications that include kidney disease, loss of eyesight and can even progress to the point where limbs need to be amputated. Fortunately, it is a treatable disease when caught early enough.

Peripheral Vascular Disease

Peripheral vascular disease is a disease of the circulatory system that supplies oxygenated blood to the body's "peripheral" tissues and returns it to the heart. The "periphery" commonly refers to the extremities or tissues furthest away from the center of the body, such as arms, legs and the head. The most common form of peripheral vascular disease is "peripheral artery disease," or "PAD." PAD begins with the accumulation of fatty "plaque" on the inside of the arteries---typically from high cholesterol diets. If left undetected, PAD can lead to "atherosclerosis" or "hardening of the arteries," where the artery can become completely blocked. When the affected body part loses circulation to the area, it can result in numbness, "tingling" and could eventually lead to gangrene or other complications.