



Esse Health e-Newsletter Article

Raising Awareness: American Heart Month

# The Dangers of Coronary Artery Disease

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According to the American Heart Association, cardiovascular or heart disease is our nation's No. 1 killer. Since 1963 Congress has required that the president proclaim February as American Heart Month. Coronary artery disease is the most common type of heart disease ([www.cdc.gov](http://www.cdc.gov)) and is the leading cause of death in the United States, surpassing death from all types of cancer combined. Coronary artery disease is caused by plaques in the arteries of the heart, resulting in blockages. These plaques could cause chest pain, better known as angina, or, if they ulcerate and break off could lead to a heart attack, or myocardial infarction.

Risk factors for coronary artery disease are well known. They include family history, male sex, smoking, high blood pressure, disorders of cholesterol, diabetes and sedentary lifestyle. There are many other markers that have been studied to assess risk of coronary artery disease, but none add to the predictive value of those mentioned.

Risk of heart disease rises with blood pressure readings above 115/75. Anything above 140/90 is considered high, and treatment will reduce the risk of dying of a heart attack by up to 25 percent. There are many different types of blood pressure medicines available, and most work very well, so the choice of medication should rest on other medical problems you have, potential side effects and cost of the medicine.

Studies have shown that we can greatly reduce the risk of heart disease by reducing cholesterol with medicines called statins. In otherwise healthy individuals, low-density lipoprotein (LDL) up to 130 is tolerated, and between 130 and 160 is treated with diet and exercise. Anybody with an LDL over 160 is a candidate for treatment with statins. Ideally, for primary treatment (for a person with no history of coronary disease or diabetes) we try to reach a goal of below 100 for the LDL. If someone actually has coronary disease, or is diabetic, we lower the standards and shoot for an LDL of 75 or below. This can result in a 30 to 40 percent reduction in risk of dying of a heart attack.

Smoking is the leading reversible cause of coronary disease. Smokers have over double the risk of non smokers of dying of a heart attack, and by stopping smoking, can reduce that risk over a 10 year period to that of a non smoker. If you smoke, talk to your doctor about ways to stop.

Diabetes and glucose intolerance, which is an alteration in a persons ability to handle sugar, but not yet to the diabetic range, are special considerations. The risk of heart disease is so high, the medical community considers them as "cardiac equivalents", which means we treat them the same way we treat people who actually have had a heart attack. In

addition to trying to maintain good control of the blood sugar, cholesterol is treated to a much lower level, as mentioned above, and blood pressure goal is below 130/80, not 140/90 as normal.

Exercise is a negative risk factor, meaning an active lifestyle actually will lower your risk of coronary disease. Twenty minutes of aerobic activity, such as brisk walking, jogging, bicycling, swimming, etc, three to four days of the week is enough to significantly lower your risk of coronary disease.

Coronary artery disease has many complications and comorbid conditions. The most devastating complication of coronary artery disease is a heart attack. One half of people with coronary disease will suffer from chest pain, and one half will have a heart attack as their first manifestation of the disease, often resulting in sudden death. For survivors of heart attack, congestive heart failure is often a complication. Heart failure is a weakness of the heart muscle due to some of it dying as a result of the heart attack. It can result in fatigue, shortness of breath, and swelling of the ankles and feet. Mortality from congestive heart failure can be over 50 percent yearly.

Comorbid conditions associated with coronary artery disease include stroke and peripheral vascular disease. Stroke is the sudden interruption of blood flow to part of the brain, and can be devastating. Peripheral vascular disease results in blood flow blockages in the legs and can lead to leg pain, swelling and skin breakdown, resulting in necrosis of the limb, which often leads to amputation.

The best treatment for coronary disease is prevention. Monitoring reversible risk factors is very important. Your doctor should check your blood pressure, blood sugar, cholesterol, and inquire about smoking and exercise. Routine C-Reactive Protein (CRP) values and calcium scoring with CT scanners, while in the news, are NOT routine screening tests and are only used in special situations. Stress testing also is not a screening test for coronary artery disease. In an asymptomatic individual, a stress test would more likely show a false positive result than a true positive result (the test is positive in the absence of disease more likely than in the presence of the disease).

In conclusion, coronary artery disease is a very common condition, the most common cause of death in the United States. The risk factors are widely known and easily checked and treated. An active lifestyle, healthy eating habits and avoidance of tobacco starting at a young age are the best ways to prevent coronary disease.

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