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CORONARY ARTERY DISEASE (CAD)

Coronary artery disease (CAD) is a narrowing of the small blood vessels that supply blood and oxygen to the heart. CAD is usually caused by a condition called atherosclerosis, which occurs when fatty material and other substances form a plaque build-up on the walls of your arteries causing them to get narrow. As the coronary arteries narrow, blood flow to the heart can slow down or stop. This can cause chest discomfort (angina) or shortness of breath usually when you are active, or even a heart attack. Coronary heart disease (CAD) is the leading cause of death in the United States for men and women.

Many things increase your risk for CAD: Men have a higher risk than women until women get older (especially after they reach menopause) and then their risk increases to almost equal that of a man's risk. Bad genes (heredity) can increase your risk. You are more likely to develop CAD if someone in your family has a history of it-- especially if they had it before age 50. Other important risk factors include diabetes, high blood pressure, and abnormal cholesterol levels. Smokers have a much higher risk of CAD than nonsmokers. Already having atherosclerosis in another part of your body (peripheral artery disease (PAD)) also increases your risk. Other risk factors include alcohol abuse, not getting enough exercise, and having excessive amounts of stress. Higher-than-normal levels of inflammation-related substances, such as C-reactive Protein (CRP) have been studied as possible indicators of an increased risk for CAD.

Symptoms may be very noticeable, but sometimes you can have the disease and not have any symptoms. Angina is the most common symptom but can vary from person to person. It may feel heavy or like someone is squeezing your heart. You usually feel it under your breast bone (sternum), but sometimes in your neck and arms. The pain usually occurs with activity or emotion (except when you are having a heart attack, when), and goes away with rest. Other symptoms include shortness of breath and fatigue with activity. Women, elderly people, and people with diabetes are more likely to have symptoms other than chest pain, such as fatigue, shortness of breath, and weakness.

Many tests help diagnose CAD. Occasionally, more than one test will be ordered before making a definite diagnosis. Tests may include an electrocardiogram (ECG or EKG), an exercise stress test or nuclear scan, an echocardiogram, CT angiography, or coronary angiography- a hospital based procedure designed to evaluate the heart arteries under x-ray.

Treatment of CAD will depend on your cardiologist's suspicion of the severity of the disease. Lifestyle changes such as eating a heart healthy diet -- one that is low in salt, saturated fats, cholesterol, and trans fats -- and getting regular exercise as well as maintaining a healthy weight are very important. Stopping smoking, controlling diabetes, high cholesterol, and high blood pressure are equally important treatments. You may be asked to take one or more medicines to treat blood pressure, diabetes, or high cholesterol levels.. Nitroglycerin may be prescribed to treat the symptoms of angina and stop chest pain. Procedures and surgeries used to treat CAD include angioplasty and stent placement or coronary artery bypass surgery (CABG). Although everyone is different, early detection of CAD generally results in a better outcome.

For more information, you can go to:

<http://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0004449/>
<http://www.mayoclinic.com/health/coronary-artery-disease/DS00064>