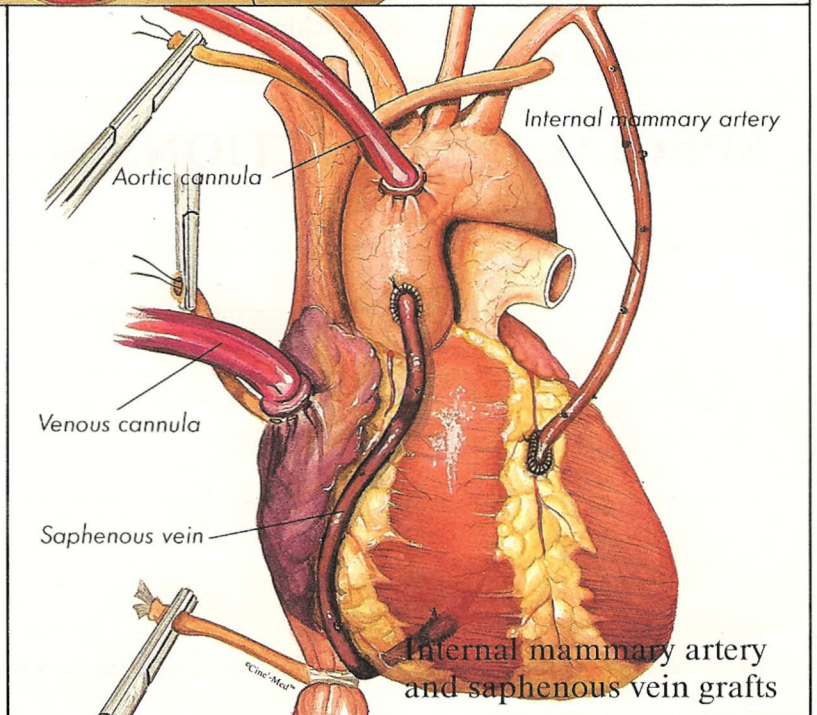
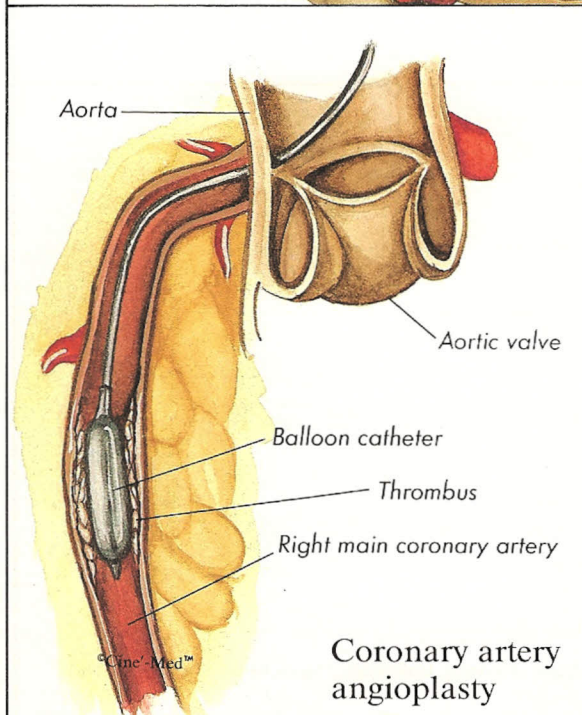
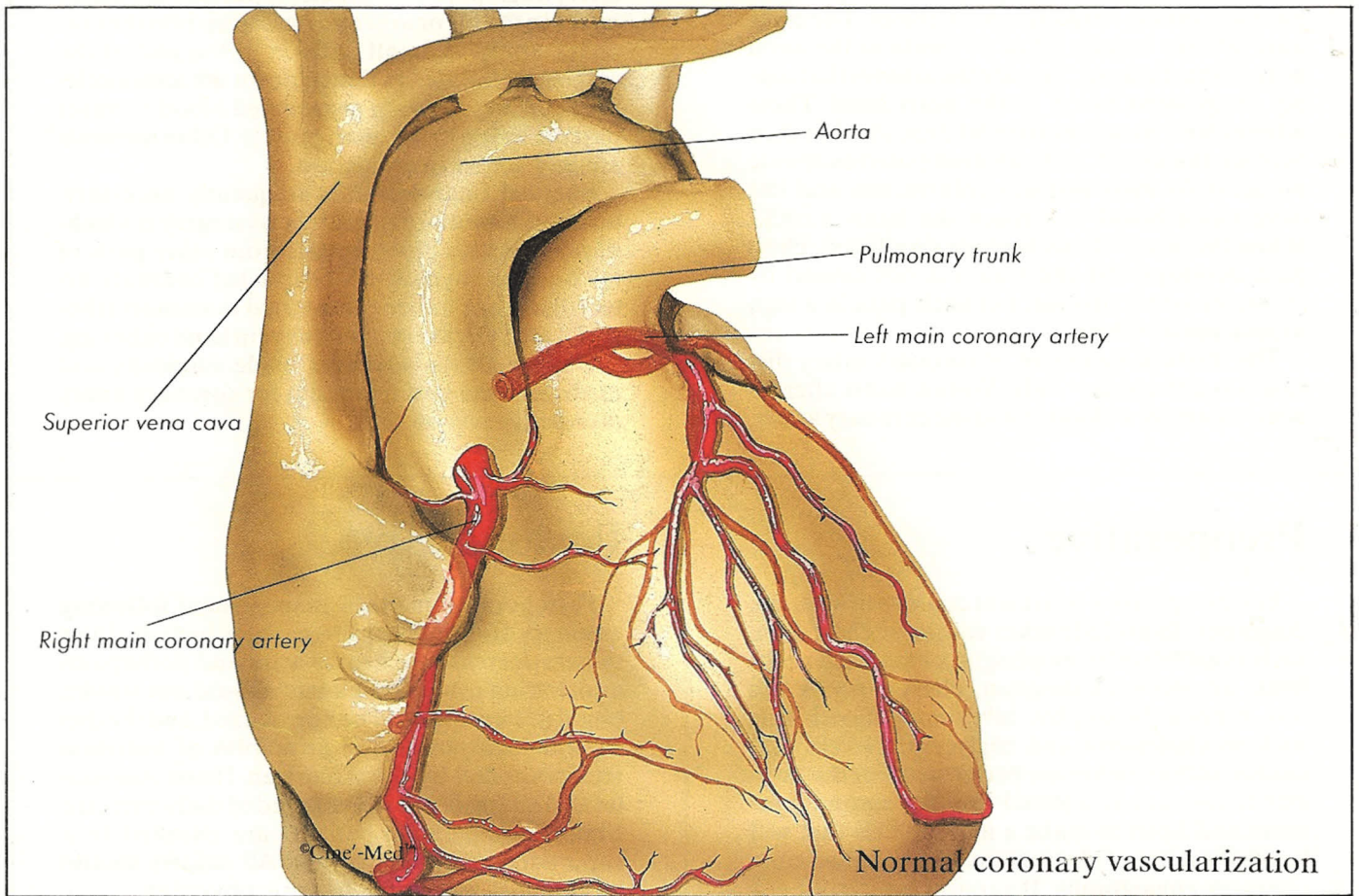


# CORONARY ARTERY DISEASE



A **Glaxo** Patient Educator

**C**oronary artery disease is a term many people associate with "hardening of the arteries." This health problem is believed to be caused by a variety of factors that contribute heavily to the disease, such as smoking, stress, improper diet, high blood pressure, family heredity, and diabetes. The coronary arteries branch off of the aorta as the aorta arises from the heart; they are the arteries that supply oxygenated blood to the heart itself. These arteries tend to accumulate fat deposits that then become thickened and calcified (arteriosclerotic plaques). As these deposits enlarge, less and less oxygenated blood can reach the heart muscle. When the obstructions become significant, chest pain develops. All chest pain is not caused by coronary artery disease, but such pain is a sign to seek medical help.

The medical treatment of coronary artery disease has advanced greatly. Within hours after an acute injury by a blood clot in the coronary artery,

the intravenous infusion of an enzyme called streptokinase may dissolve the clot and allow the muscle to receive oxygenated blood. Another technique that has been very successful is coronary artery angioplasty. A catheter is put into the major artery in the leg or arm and passed up into the coronary artery. A small balloon at the end of the catheter is inflated to flatten down the arteriosclerotic plaque, allowing oxygenated blood to travel past the lesion to the heart muscle. Other methods are now under investigation.

Surgical intervention is frequently necessary, however. Coronary artery bypass surgery is a technique that uses blood vessels from other parts of the body to "bypass" an obstructed coronary artery. Surgeons utilize the internal mammary (thoracic) artery or the saphenous vein from either leg.

Despite all the advances made surgically and medically, the best treatment for coronary artery disease is prevention.

## Preoperative

The preoperative treatment consists of accurate diagnosis. To exclude other causes of chest pain, such as gallbladder, esophagus, or stomach problems, an electrocardiogram, chest x-ray, stress test, echocardiography, laboratory blood tests such as cholesterol and triglyceride levels, and cardiac catheterization are performed. For the catheterization, dye is injected into the coronary arteries and heart to make a moving film that will locate the areas of obstruction. This is called cine-coronary angiography. If surgical intervention is required, blood typing and crossmatching must be performed as well.

## Postoperative

Postoperative medical management following coronary artery bypass surgery may include drugs to help decrease the heart's work and perhaps an anticlotting drug. The patient should not smoke, blood pressure should be normalized, and the diet should incorporate the principles of nutrition recommended by the American Heart Association. Walking is the recommended daily exercise. Many postoperative patients are enrolled in a supervised exercise program. All activity should be carefully monitored by your physician.

## SPECIAL INSTRUCTIONS

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This patient educator has been prepared in consultation with Joseph J. Amato MD, FACS, Professor of Surgery, University of Medicine and Dentistry of New Jersey, New Jersey Medical School.