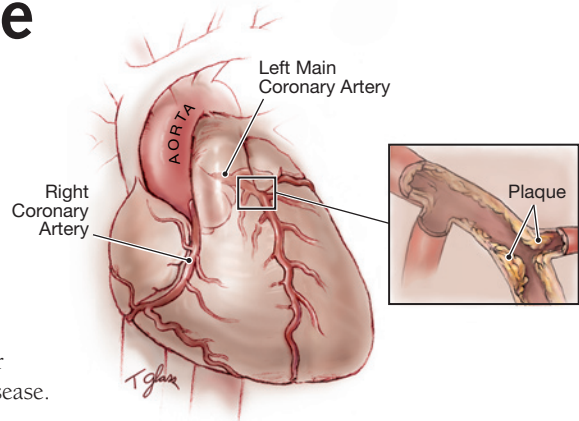


Coronary Artery Disease

Coronary artery disease means narrowing of the **coronary arteries** (arteries that supply blood to the heart). This narrowing is due to a buildup in the walls of the arteries of **plaque** (deposits made up of cholesterol, other fats, and calcium)—a process called **atherosclerosis** (hardening of the arteries). If a plaque becomes delicate and breaks, a blood clot will quickly form that can block blood flow in the artery and may lead to a **myocardial infarction** (death of the heart muscle area supplied by the blocked artery), often referred to as a *heart attack*. The November 24, 2004, issue of *JAMA* includes an article about coronary artery disease.



SYMPTOMS

- Coronary artery disease can develop slowly without any symptoms.
- **Angina**—chest pain that can radiate to (or sometimes is limited to) the shoulders, arms, or jaw. Angina usually lasts several minutes and may be related to activity, exercise, large meals, cold, or stress. If angina lasts more than 15 minutes, there is a risk that a heart attack may be occurring.
- Heart attack symptoms include severe chest pain, shortness of breath, sweating, and nausea. Symptoms can be different in men and women, with women more likely to experience unusual fatigue after activity rather than chest pain.

If you or anyone you know experiences heart attack symptoms, call immediately for emergency medical evaluation.

DIAGNOSIS

Several tests can be performed in an emergency department to determine if a heart attack is occurring. Blood tests can detect certain substances in the blood that are released during a heart attack. An **electrocardiogram** (ECG, EKG) can reveal heart attacks and heart rhythm problems.

TREATMENT

- Nitrate medication (such as nitroglycerin) can be taken to help stop angina attacks.
- Blood-thinning drugs, such as aspirin, can help reduce the risk of blood clots.
- **Statins** (a kind of cholesterol-lowering drug) and **beta-blockers** (a kind of blood pressure-lowering drug) can prevent heart attacks and premature deaths.
- **Percutaneous coronary intervention (PCI)**—a thin balloon is threaded into the blocked artery and inflated, pressing the plaque and widening the artery to increase blood flow; a **stent** (a small flexible tube) is then placed in the artery to keep it open.
- **Coronary artery bypass graft (CABG) surgery**—uses a vein from another part of the body to bypass a severely blocked coronary artery.

FOR MORE INFORMATION

- American Heart Association
800/AHA-USA-1 (242-8721)
www.americanheart.org
- National Heart, Lung, and Blood Institute
301/592-8573
www.nhlbi.nih.gov

PREVENTION

- Don't smoke.
- Exercise at least 30 minutes a day.
- Keep high blood pressure, cholesterol, and diabetes under control with diet, exercise, and, if necessary, medications.
- Eat a diet rich in whole grains, fruits, and vegetables and low in saturated fat.
- A daily aspirin can reduce the risk of heart attack, especially among men older than 50 years.

INFORM YOURSELF

To find this and other JAMA Patient Pages, go to the Patient Page link on JAMA's Web site at www.jama.com. Many are available in English and Spanish. A Patient Page on coronary artery bypass grafting was published in the April 21, 2004, issue; one on percutaneous coronary intervention was published in the February 11, 2004, issue; and one on electrocardiograms was published in the August 23/30, 2003, issue.

Sources: American Heart Association; National Heart, Lung, and Blood Institute

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