

Acute Coronary Syndromes

Acute coronary syndromes (ACS) is a term used to describe a group of conditions resulting from **acute myocardial ischemia** (insufficient blood flow to heart muscle) and ranging from **unstable angina** (increasing, unpredictable chest pain) to **myocardial infarction** (heart attack). The conditions are related to varying degrees of narrowing or blockage of single or multiple coronary arteries that provide blood, oxygen, and nutrients to the heart. This life-threatening disorder is a major cause of emergency medical care and hospitalization. **Coronary artery disease** (CAD) remains the leading cause of death in the United States. The January 6, 2010, issue of *JAMA* includes an article about treatment decisions in acute coronary syndromes. This Patient Page is based on one previously published in the July 2, 2008, issue of *JAMA*.

SYMPTOMS

- Chest pain—uncomfortable pressure, squeezing, or fullness
- Upper body discomfort—pain or discomfort in both arms, the back, neck, jaw, or abdomen
- Shortness of breath
- Other symptoms include sweating, nausea, and light-headedness

If you or someone you are with has chest pain, especially with one or more of these other symptoms or signs, call 911 in the United States or the number for medical emergencies in other locations. Acute coronary syndrome patients can benefit from immediate medical care. If **cardiac arrest** occurs (loss of responsiveness, no sign of breathing, no heartbeat or pulse), call 911 immediately and start **CPR** (cardiopulmonary resuscitation). Apply an automated external defibrillator, if available.

DIAGNOSIS AND POSSIBLE TREATMENTS

Initial assessment includes a complete medical history, physical examination, an electrocardiogram (ECG) test to evaluate the electrical activity of the heart, and blood tests to evaluate the presence of chemicals resulting from cardiac cell injury. Hospitalization may be necessary. Standard treatments for coronary artery blockage may include placement of **stents** (mesh tubes) within narrowed blood vessels or heart surgery for bypass grafting of blocked vessels.

WAYS TO REDUCE YOUR RISK OF CORONARY ARTERY DISEASE

- Don't smoke
- Control your blood pressure
- Exercise on a regular basis
- Eat a healthful diet
- Maintain a reasonable body weight
- Ask your doctor about taking a low dose of aspirin each day

Janet M. Torpy, MD, Writer

Alison E. Burke, MA, Illustrator

Richard M. Glass, MD, Editor

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FOR MORE INFORMATION

- American Heart Association
www.americanheart.org
- American College of Cardiology
www.acc.org

INFORM YOURSELF

To find this and previous 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 percutaneous coronary intervention was published in the February 11, 2004, issue; one on cardiac arrest was published in the January 4, 2006, issue; and one on automated external defibrillators was published in the August 9, 2006, issue.

Sources: American College of Cardiology, American Heart Association

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