



## Myocardial Infarction

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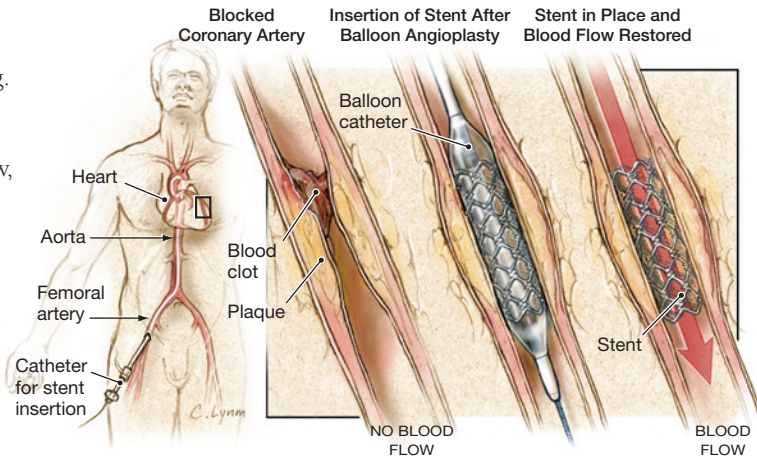
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# Myocardial Infarction

**M**yocardial infarction, also known as a heart attack, can strike without warning. A myocardial infarction occurs when blood supply to a part of the **myocardium** (heart muscle) is interrupted, either by lack of blood flow, obstruction by a clot, or rupture of a **plaque** (a buildup of fat and other substances in the blood) in a **coronary** (heart) artery. Many individuals have coronary artery disease and do not know it until they have a heart attack or die suddenly as a result of myocardial infarction. The January 30, 2008, issue of *JAMA* includes a study about the use of **stents** (devices that help to hold diseased coronary arteries open).



## SIGNS AND SYMPTOMS

- Chest pain, often crushing, severe, and left-sided
- Arm, jaw, or neck pain
- Fainting or light-headedness
- Nausea
- Fatigue
- Upper abdominal pain
- Loss of consciousness
- Cardiac arrest

Men are more likely to experience chest pain during a myocardial infarction. Women often have more subtle symptoms, including fatigue and nausea.

## TREATMENT

Call emergency medical services immediately (in the United States, dial 911). Treating a myocardial infarction quickly is important to limit heart muscle damage and prevent complications. Oxygen, aspirin (taken immediately), and pain relief with morphine (or a similar medication) are usually used in the immediate evaluation period. An **electrocardiogram** (electrical tracing of the heartbeats) is part of early assessment, as are blood tests looking for heart muscle damage. Other tests may be prescribed, such as an **echocardiogram** (using sound waves to evaluate heart function), chest x-ray, and **coronary angiography** (a test using dye studies of the heart's blood vessels). During coronary angiography, the cardiologist may be able to treat the diseased blood vessel using **percutaneous coronary interventions**, such as a balloon (to open the artery for better blood flow) or a stent. If cardiac bypass graft surgery is recommended, the cardiac surgeon uses the angiographic images to guide the surgical approach.

## 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](http://www.jama.com). Many are available in English and Spanish. A Patient Page on coronary artery disease was published in the November 24, 2004, issue; one on acute coronary syndromes was published in the August 15, 2007, issue; one on percutaneous coronary intervention was published in the February 11, 2004, issue; and one on cardiac arrest was published in the January 4, 2006, issue.

## REDUCE YOUR RISK

- Do not smoke.
- Exercise daily.
- Eat a diet rich in fruits, vegetables, and whole grains. Limit intake of animal fats, high-fat foods, and processed food products. Be cautious about the sodium content of foods, especially with canned, frozen, or processed foods.
- Maintain a healthy weight.
- Control high blood pressure, diabetes, and other chronic medical problems.
- Keep your cholesterol and other blood lipid levels in the healthy range.

## FOR MORE INFORMATION

- American Heart Association  
800/242-8721  
[www.americanheart.org](http://www.americanheart.org)
- National Heart, Lung, and Blood Institute  
301/592-8573  
[www.nhlbi.nih.gov](http://www.nhlbi.nih.gov)

Sources: National Heart, Lung, and Blood Institute; American Heart Association; American Academy of Family Physicians

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