Myocardial Infarction

Myocardial 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

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.

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
- National Heart, Lung, and Blood Institute
  301/592-8573
  www.nhlbi.nih.gov

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

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