



Centers for Disease Control and Prevention

CDC 24/7: Saving Lives. Protecting People.™

Heart Attack

A heart attack, also called a myocardial infarction, occurs when a section of the heart muscle dies or gets damaged because of reduced blood supply. Coronary Artery Disease (CAD) is the main cause of heart attack. A less common cause is a severe spasm of a coronary artery, which also can prevent blood supply from reaching the heart.

It is important to seek treatment for a heart attack immediately. Otherwise, further damage to the heart muscle can occur and an irregular heart rhythm may develop.



Sudden cardiac arrest—the stopping of the heart—occurs when the heart stops completely. Unless treated, a person whose heart has stopped can die within minutes.

Treatment

People who experience a heart attack need emergency care such as cardiopulmonary resuscitation (CPR) or electrical shock (defibrillation). That's why you need to act quickly once you notice the signs and symptoms ([signs symptoms.htm](#)) of heart attack.

If you think you or someone you know is having a heart attack, **call 9-1-1 immediately.** Bystanders who have been trained to perform CPR or use a defibrillator may be able to help the victim until emergency medical personnel arrive. At the hospital, doctors can perform tests to determine whether a heart attack is occurring and decide on the best treatment.

Remember, the chances of surviving a heart attack are greater when emergency treatment begins quickly.



Life After an Attack

If you've had a heart attack, your heart may still be damaged. This could affect your heart's rhythm, pumping action, and blood circulation. You may also be at risk for another heart attack or conditions such as stroke, kidney disorders, and peripheral arterial disease. But, there are steps you can take to lower your chances of having future health problems.

Your doctor may recommend cardiac rehabilitation, which is a program that can help you make lifestyle changes to improve your heart health and quality of life. These changes may include taking medication, changing what you eat, increasing your physical activity, stopping smoking, and managing stress. Also, be sure to talk with your doctor about everyday activities. He or she may want you to limit work, travel, sex, or exercise.

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Signs and Symptoms

Symptoms of a Heart Attack

The five major symptoms of a heart attack are—

- Pain or discomfort in the jaw, neck, or back.
- Feeling weak, light-headed, or faint.
- Chest pain or discomfort.
- Pain or discomfort in arms or shoulder.
- Shortness of breath.



If you think that you or someone you know is having a heart attack, you should call 9–1–1 immediately.

Heart Attack Signs

If the blood supply to the heart muscle is cut off, a heart attack can result. Cells in the heart muscle do not receive enough oxygen and begin to die. The more time that passes without treatment to restore blood flow, the greater the damage to the heart. Having high blood pressure or high blood cholesterol, smoking, increased age, physical activity, unhealthy diet, and having had a previous heart attack or family history of stroke, obesity, or diabetes can increase a person's chances of having a heart attack.

According to the American Heart Association, about 785,000 Americans have an initial heart attack and another 470,000 have a recurrent heart attack each year.¹ According to a CDC report,² almost half of the cardiac deaths in 1999 occurred before emergency services and hospital treatment could be administered.

It is important to recognize the signs of a heart attack and to act immediately by calling 9–1–1. A person's chances of surviving a heart attack are increased if emergency treatment is given to the victim as soon as possible.

References

1. Roger VL, Go AS, Lloyd-Jones DM, et al. Heart disease and stroke statistics—2012 update: a report from the American Heart Association. *Circulation*. Epub 2011 Dec 15.
2. CDC. State-specific mortality from sudden cardiac death—United States, 1999. *MMWR Morb Mortal Wkly Rep*. 2002;51:123-6.

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