

# Heart attack treatments

As more people lead more active and healthier lifestyles, the death rate from cardiovascular disease has declined. However, heart disease continues to affect thousands of people each year and is the leading cause of death in the United States.

If you or someone you know experience any of the symptoms of a heart attack, it is very important that you receive immediate medical attention by contacting the emergency medical response system (ie, call 911 in most US Cities) for transport to the nearest hospital with 24-hour emergency cardiac care. The sooner a person receives treatment, the better the chances for recovery.



A study in the July 28, 1999, issue of *JAMA* found that elderly heart attack

patients who received **angioplasty** treatment, in comparison to **thrombolytic therapy** (see “Treatments” on this page) had slightly better survival rates after 30 days and after 1 year. However, the benefit wasn’t found in a small group of patients who were classified as ideal for thrombolytic therapy.


## WHAT IS A HEART ATTACK?


A heart attack (**myocardial infarction**) occurs when there is blockage or obstruction in the coronary arteries supplying blood to the heart. This results in damage or death to part of the heart muscle. A heart attack can be caused by **plaque buildup** (deposits of fatty substances that interfere with blood flow) on the inner lining of the coronary arteries (**atherosclerosis**) or a blood clot (**coronary thrombosis** or **coronary occlusion**).

## TREATMENTS:

- Defibrillators** – If a heart has stopped or has a dangerously abnormal heart beat, treatments to try to restore the normal heart rhythm include an **external defibrillator** (a machine that administers an electric shock) and an **implantable cardioverter defibrillator** (ICD, a device that includes a thin wire that is inserted into the heart to deliver an electric shock whenever the heartbeat becomes dangerously irregular).
 
- Drugs** – Most patients should receive a low dose of aspirin. Other drugs used to treat heart attacks or prevent complications include **thrombolytic therapy** (to prevent and dissolve blood clots), **antiarrhythmic drugs** (to control an abnormal heart beat), **beta-blockers** (protect the heart by slowing the heart rate, lowering blood pressure, and preventing irregular
 

heartbeats), **calcium channel blockers** (lower blood pressure, relieve chest pain), **statins** (lower blood cholesterol and prevent blood vessel narrowing), and **ACE inhibitors** (lower blood pressure and prevent recurrences).

- Angioplasty** – Known as **percutaneous transluminal coronary angioplasty** (P.T.C.A.), the procedure widens narrowed coronary arteries by using a balloon that is inflated inside of a narrowed artery.
 

- Coronary artery bypass graft** (C.A.B.G.) – A form of open heart surgery where a cardiovascular surgeon takes a blood vessel from another part of the body and attaches it from the heart to the obstructed artery to allow the blood to detour a blocked artery.
 

## SYMPTOMS:

- Sudden pain in central chest, ranging from a tight ache to intense crushing agony. It usually lasts for 30 minutes or more and is not relieved by rest.
- Pain sometimes radiates out to the shoulders, neck, jaw, or arms. Some patients may experience only pain in the shoulders, neck, or arms, and not in the chest.
- Chest discomfort or pain with shortness of breath, restlessness, cold clammy skin, nausea or vomiting, or loss of consciousness.

## PREVENTION:

- Exercise regularly to help prevent having a first heart attack or a recurrence.
- If you smoke, stop completely.
- If you have high blood pressure, high cholesterol, or diabetes, work with your doctor to keep the conditions under control.
- Maintain a healthy weight and eat a low-fat diet.

## FOR MORE INFORMATION:

- American Heart Association  
800/AHA-USA1 or  
[www.americanheart.org](http://www.americanheart.org)
- National Heart, Lung, and Blood Institute  
NHLBI Information Center  
301/792-8573 or [www.nhlbi.nih.gov](http://www.nhlbi.nih.gov)
- American College of Cardiology  
ACC Resource Center  
800/253-4636, ext. 694  
or [www.acc.org](http://www.acc.org)

## INFORM YOURSELF:

To find this and previous *JAMA* Patient Pages, check out the AMA’s Web site at [www.ama-assn.org/consumer.htm](http://www.ama-assn.org/consumer.htm). A previous *JAMA* Patient Page about heart attacks was published on May 6, 1998.

Additional Sources: American Heart Association, National Heart, Lung, and Blood Institute, American College of Cardiology

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