**Cardiac Arrest Symptoms and Causes**

[Cardiac arrest](http://www.medicinenet.com/script/main/art.asp?articlekey=42292) is the sudden loss of cardiac function, when the heart abruptly stops beating. A person whose heart has stopped will lose consciousness and stop normal breathing, and their pulse and blood pressure will be absent. Unless resuscitative efforts are begun immediately, cardiac arrest leads to death within a few minutes. This is often referred to by doctors as "sudden death" or "sudden cardiac death (SCD)."

[Ventricular fibrillation](http://www.medicinenet.com/script/main/art.asp?articlekey=84544) is the most common cause of cardiac arrest. Ventricular fibrillation occurs when the normal, regular, electrical activation of heart muscle contraction is replaced by chaotic electrical activity that causes the heart to stop beating and pumping blood to the brain and other parts of the body. Permanent brain damage and death can occur unless the flow of blood to the brain is restored within five minutes. [Heart attack](http://www.medicinenet.com/script/main/art.asp?articlekey=379) is the most common cause of ventricular fibrillation. Less common causes of cardiac arrest include respiratory arrest (loss of breathing function), [choking](http://www.medicinenet.com/script/main/art.asp?articlekey=8539), trauma, electrocution, and [drowning](http://www.medicinenet.com/script/main/art.asp?articlekey=91024).

Early [cardiopulmonary resuscitation](http://www.medicinenet.com/script/main/art.asp?articlekey=2632) (CPR) and defibrillation (electrical impulses delivered to the chest to restore normal heart rhythm) are the only way to reverse a cardiac arrest. These lifesaving measures must be instituted within a few minutes after cardiac arrest in order to have any chance of success. For every minute that passes without defibrillation, a person's chances of survival decrease by 7% to 10%. In areas where emergency medical services are able to provide defibrillation within five to seven minutes, the survival rate for cardiac arrest has been reported to be as high as 49%. It is rare for a resuscitation to be successful if more than ten minutes have elapsed following a cardiac arrest.

While having [coronary artery disease](http://www.medicinenet.com/script/main/art.asp?articlekey=87976) or having a heart attack can increase a person's risk for having cardiac arrest, a heart attack is not the same thing as cardiac arrest. A heart attack (myocardial infarction) occurs when a portion of the heart muscle dies due to lack of blood flow and oxygen to a specific area of the heart. Symptoms of a heart attack typically include chest or other upper body discomfort and [shortness of breath](http://www.medicinenet.com/script/main/art.asp?articlekey=34434). A heart attack can precipitate sudden onset of ventricular fibrillation and cardiac arrest. Heart attack victim that develops ventricular fibrillation will lose consciousness.

Cardiac arrest is obviously a serious medical emergency. The mortality (death rate) from cardiac arrest can be decreased by providing immediate CPR and prompt defibrillation. Many public places are now equipped with automated external defibrillators (AEDs) that allow lay persons to provide emergency defibrillation in case of cardiac arrest.