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About Cardiac Arrest

KEY POINTS

- Cardiac arrest occurs when the heart suddenly and unexpectedly stops beating.
- Cardiac arrest is not the same as a heart attack.
- If you believe someone is having a cardiac arrest, call 9-1-1 right away, look for an automated external defibrillator (AED), and give CPR until medical professionals arrive.



What it is

More than 356,000 people have an out-of-hospital cardiac arrest in the United States every year, [\[1\]](#) and about 60% to 80% of them die before reaching the hospital. [\[2\]](#)

Cardiac arrest occurs when the heart suddenly and unexpectedly stops beating. Blood stops flowing to the rest of the body. People who survive cardiac arrest can have:

- Brain injury.
- Injury to internal organs.
- Psychological distress, like anxiety, post-traumatic stress disorder (PTSD), and depression.

Cardiac arrest is not the same as a [heart attack](#) (myocardial infarction), myocarditis (inflammation of the heart muscle), or pericarditis (inflammation of the outer lining of the heart).

Signs and symptoms

A person may be in cardiac arrest if they:

- Collapse suddenly and lose consciousness (pass out).
- Are not breathing or are gasping for air.
- Don't respond to shouting or shaking.
- Don't have a pulse.

If you believe someone is having a cardiac arrest, call 9-1-1 right away, look for an automated external defibrillator (AED), and give CPR until medical professionals arrive.

At-risk populations

People at highest risk for cardiac arrest are older adults and men. Black men and women are more likely to die from out-of-hospital cardiac arrest than White men and women. [\[3\]](#)

Causes

Cardiac arrest has several causes, including:

- [Cardiomyopathy](#), which happens when the heart muscle becomes enlarged or stiff, leading to abnormal contractions.
- [Coronary artery disease](#), which restricts the flow of blood to the heart.
- [Valvular heart disease](#) occurs when a valve in the heart is damaged or diseased.
- An arrhythmia, which is when the heart beats too slowly, too fast, or in an irregular way.

Although rare (fewer than 30 reported cases annually), a forceful blow to the chest, as from a hard ball or steering wheel, can also cause cardiac arrest. This condition is called commotio cordis (agitation of the heart).[\[4\]](#)

Resources

- [AED Steps | Steps to Use an AED | Red Cross](#) 
- [American Heart Association: CPR & First Aid: Emergency Cardiovascular Care](#) 

SOURCES

CONTENT SOURCE:

[National Center for Chronic Disease Prevention and Health Promotion; About the Division for Heart Disease and Stroke Prevention](#)

REFERENCES

1. Benjamin EJ, Virani SS, Callaway CW, et al. Heart disease and stroke statistics—2018 update: A report from the American Heart Association. *Circulation*. 2018;137(12):e67–e492. Table 16-1.
2. Tsao CW, Aday AW, Almarzooq ZI, et al. Heart disease and stroke statistics—2023 update: A report from the American Heart Association. *Circulation*. 2023;147(8):e93–e621. Table 19-5 and 19-6.
3. Zhao DI, Post WS, Blasco-Colmenares E, et al. Racial differences in sudden cardiac death: Atherosclerosis Risk in Communities study (ARIC). *Circulation*. 2019;139(14):1688–1697.
4. Tainter CR, Hughes PG. *Commotio Cordis*. StatPearls Publishing; 2023.