

Cardiac Arrest: Causes, Symptoms, Treatment & Prevention

Introduction:

A cardiac arrest is an electrical problem triggered by a sudden disruption of the heart's rhythm. It is when the heart suddenly or unexpectedly stops beating due to an irregular heart rhythm. As a result, blood does not properly circulate in the body and there is a stop of blood flow to the brain and other organs.

Cardiac arrest happens in many cases without warning. This is why people also call it sudden cardiac arrest. It is a serious medical emergency and a life-threatening condition that can become fatal if you do not get immediate medical attention.



Source: [*Highlands First Aid*](#)

Signs and Symptoms of Cardiac Arrest:

Cardiac arrest happens suddenly, often without any prior symptoms. However, some people may experience the early warning signs.

- Shortness of breath
- Extreme tiredness, dizziness or lightheadedness
- Heart palpitations (fast, fluttering or pounding heartbeat)
- Back or chest pain
- Nausea and vomiting

The most critical symptoms are the sudden loss of consciousness, lack of pulse, and absence of normal breathing, which indicate the heart has stopped pumping blood effectively.

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Causes of Cardiac Arrest:

Cardiac arrest is caused by a malfunction in the heart's electrical signals, leading to abnormal heart rhythms called arrhythmias. The most common cause is ventricular fibrillation, where the heart's lower chambers (ventricles) quiver instead of pumping blood effectively.

The most common causes are:

- **Blockages in the arteries** supplying the heart muscle can lead to damage and electrical disturbances.
- **Enlargement or thickening** of the heart muscle can cause abnormal contractions.
- **Structural defects** or electrical abnormalities present from birth.
- **Lack of oxygen** from choking, drowning, or electrical shocks can disrupt the heart's electrical signals.

Risk factor:

- **Previous cardiac arrest** or heart attack.
- **Smoking, obesity, diabetes**, high blood pressure, high cholesterol, sedentary lifestyle.
- **Severe physical stress** from lack of oxygen, choking, drowning, or electrical shocks
- **Men over 45** and women over 55
- **Family history** of cardiac arrest or abnormal heart rhythms

What to Do if You Feel You Are Having a Cardiac Arrest:

- **If you are the one** having symptoms, **immediately share with someone** family, a neighbour, a colleague, or a friend.
- **Try to stay as calm** as possible to prevent further strain on your heart.
- **Sit or lie down** to prevent injury if you lose consciousness.
- **If you have been prescribed** medicine for heart conditions, take it as directed by your doctor.

What to do in case someone else is having a cardiac arrest

Time is critical in a cardiac arrest situation.

- **Quickly assess** if the person is breathing and has a pulse. If not, proceed to start [CPR](#), and continue until the person starts breathing normally

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- **Call 108** immediately to alert emergency services or drive the person to the nearest hospital where cardiac health facilities are available.

Remember, prompt CPR can significantly increase your chances of survival.

What are the complications of Cardiac Arrest:

Cardiac arrest can lead to death if there is no treatment within minutes, it encompasses a range of serious challenges, including brain damage, organ dysfunction, physical disabilities, emotional trauma, reduced quality of life, and mortality.

How is Cardiac Arrest diagnosed

Tests for sudden cardiac arrest often include:

- Blood tests
- Electrocardiogram (ECG or EKG).
- Chest X-ray
- Cardiac catheterization

How is Cardiac Arrest treated

Cardiac arrest treatment has to start immediately, regardless of where it has occurred. **Survival can be as high as 90% if treatment starts within the first minutes after sudden cardiac arrest. The rate drops by about 10% each minute longer.**

- **CPR** Immediate CPR is needed to treat sudden cardiac arrest and prevent death.
- **Medicines** to treat irregular heartbeats and to manage symptoms.
- **Heart procedure or surgery** to place heart devices or to treat a blockage.

Prevention

- Maintaining a healthy weight. Being physically active
- Eating a healthy diet
- Managing stress,
- Regular health check-ups
- Limit alcohol consumption and smoking

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By incorporating these preventive measures into daily life, individuals can reduce their risk of cardiac arrest and improve overall heart health. Additionally, it is essential to be aware of the signs and symptoms of cardiac arrest and seek immediate medical attention if they occur. Early intervention can significantly improve the chances of survival and recovery from cardiac arrest.

To know more:

- [The Difference between Heart attack and Cardiac arrest](#)