# RESUSCITATION

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CURRENT TOPICS IN RESUSCITATION

CPR & AEDs

### WHAT IS THE NO. 1 CAUSE OF DEATH IN THE U.S.?

Heart disease, with 633,842 deaths in 2016<sup>1</sup>.



Many of these fatalities are

the result of sudden cardiac arrests and heart attacks. While these two terms are often used interchangeably, they're not the same — and they must be treated differently.

#### UNDERSTAND THE DIFFERENCE

Sudden cardiac arrest occurs when the heart malfunctions and stops beating unexpectedly. It's triggered by an electrical malfunction in the heart that causes an irregular heartbeat (arrhythmia). With its pumping action disrupted, the heart cannot pump blood to the brain, lungs, and other organs.





A heart attack is a "circulation" problem.

A heart attack occurs when blood flow to the heart is blocked. A blocked artery prevents oxygen-rich blood from reaching a section of the heart. If the blocked artery is not reopened quickly, the part of the heart normally nourished by that artery begins to die.

### OUT-OF-HOSPITAL VS. IN-HOSPITAL

The American Heart Association<sup>2</sup> estimates about 326,200 adults in the U.S. suffer emergency medical services-assessed out-of-hospital cardiac arrests each year. About 209,000 people experience in-hospital cardiac arrests.





#### **Chance of Survival (with CPR)**



Chance of Survival (no CPR)

#### **EVERY MINUTE COUNTS**

After sudden cardiac arrest, survival rate falls by about 10% with every minute that passes with no one performing CPR. But if CPR is administered, the chance of survival only falls by 3% to 4% per minute<sup>3</sup>.

### HIGH-QUALITY CPR IS ALWAYS NEEDED

All sudden cardiac arrest victims need high-quality CPR to keep as much blood as possible moving to vital organs like the heart, kidneys, and brain. But less than 30% are in a shockable rhythm that requires an AED<sup>4</sup>.

#### WHAT TO LOOK FOR IN AN AED

While only 50% of sudden cardiac arrest victims will initially need a shock, nearly all will require CPR to increase the flow of oxygenated blood to the heart and brain.

An AED with real-time feedback instills confidence in rescuers by guiding them to perform high-quality CPR with feedback on compression rate and depth. Your AED also should be able to accurately assess the heart's rhythm and determine if it's shockable. Deploying AEDs with these capabilities throughout the facility can help foster improved outcomes.

#### **CPR AND AEDS SAVE LIVES**

Improving resuscitation is a high priority for every hospital. Make sure you have the right technology in place — including the most advanced AEDs that include real-time CPR feedback — to provide support for all your responders and to help victims of sudden cardiac arrest survive and enjoy a better quality of life.

 ${}^{1}hhttps://www.cdc.gov/nchs/fastats/leading-causes-of-death.htm.} \\ {}^{2}http://circ.ahajournals.org/content/131/4/e29.}$ 

<sup>32010</sup> American Heart Association Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care Science. 4CPR by the Numbers, ZOLL.