

# WHY CPR?

When sudden cardiac arrest strikes, the heart stops. Completely. Hard and fast chest compressions move blood through the heart into the rest of the body. This can help save a life.



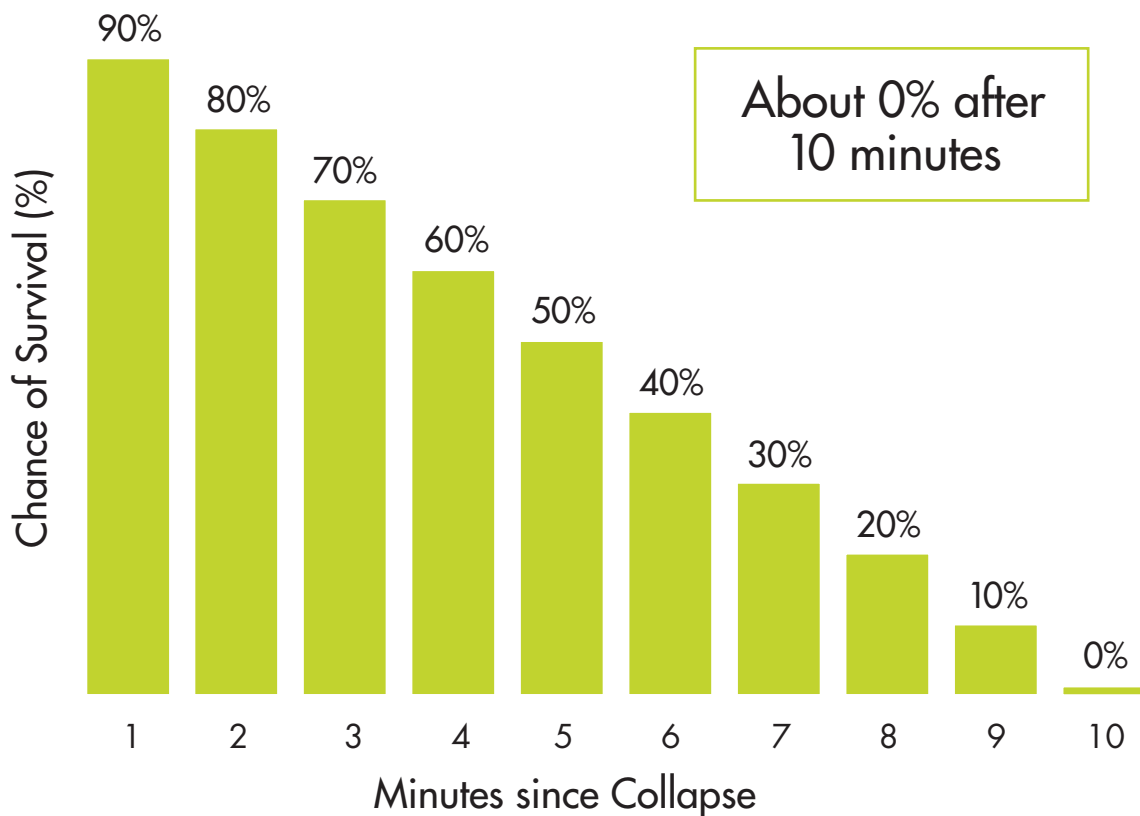
# TIME IS CRITICAL



For every minute that passes without CPR or a defibrillating shock, the probability of survival drops by about 10%.

**So start CPR and get the automated external defibrillator (AED) as quickly as possible!**

## Probability of Survival **WITHOUT** CPR

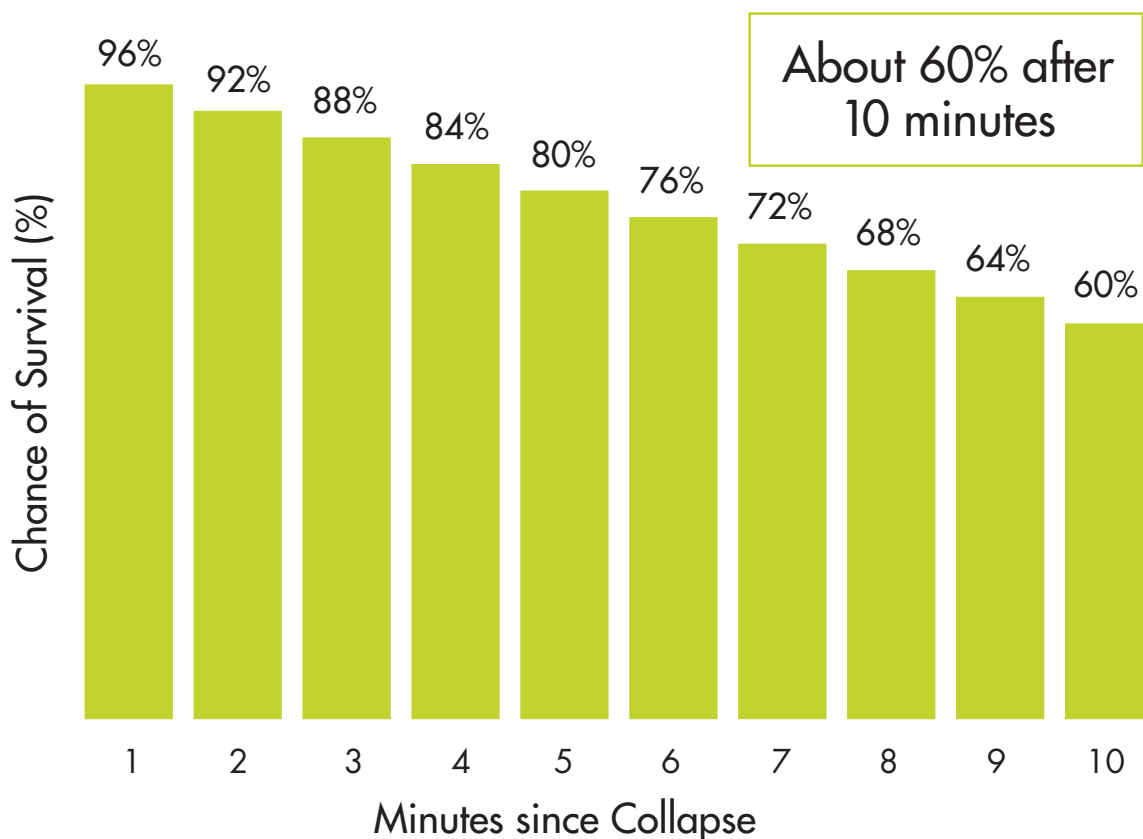


Source: Semeraro F, et al. European Resuscitation Council Guidelines 2021: Systems saving lives. Resuscitation. 2021;161:80-97.

# CPR ALONE CAN MAKE A DIFFERENCE

**Start chest compressions immediately.** Even without an AED, high-quality CPR radically improves the chances of survival from cardiac arrest. The probability of survival drops by only 4% every minute if you continue delivering high-quality CPR. With high-quality CPR, after 10 minutes, the chances of survival increase to 60%, even without an AED.

## Probability of Survival **WITH HIGH-QUALITY CPR**

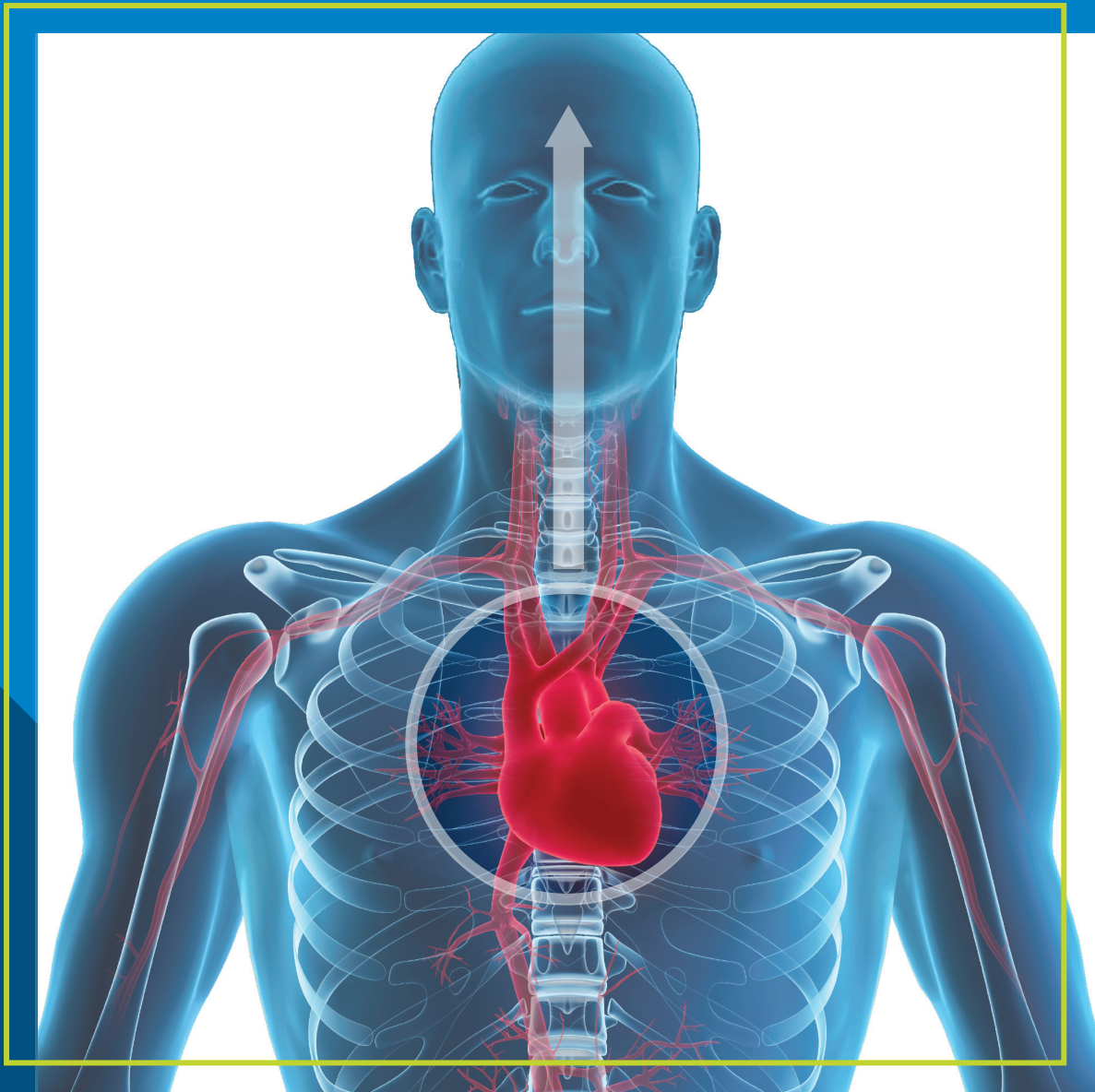


Source: Semeraro F, et al. European Resuscitation Council Guidelines 2021: Systems saving lives. Resuscitation. 2021;161:80-97.

**1**

## CPR CIRCULATES BLOOD TO THE BRAIN

By circulating blood, CPR helps preserve the brain and other vital organs. It can also play a significant role in the survivor's quality of life post-recovery.



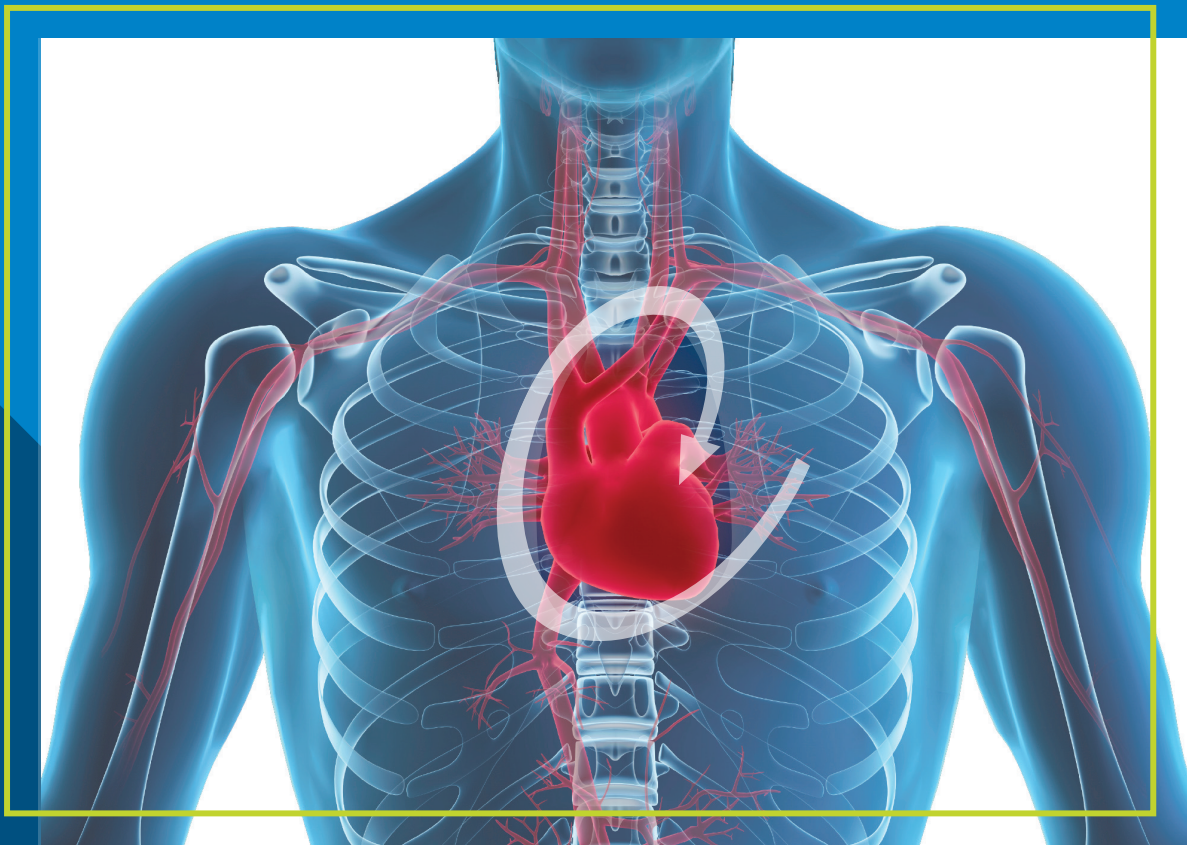


# 2

## CPR MOVES BLOOD THROUGH THE HEART

A defibrillating shock does not restart the heart — it stuns it. This enables the heart's own electrical pacemakers to reorganise and restore a natural heartbeat.

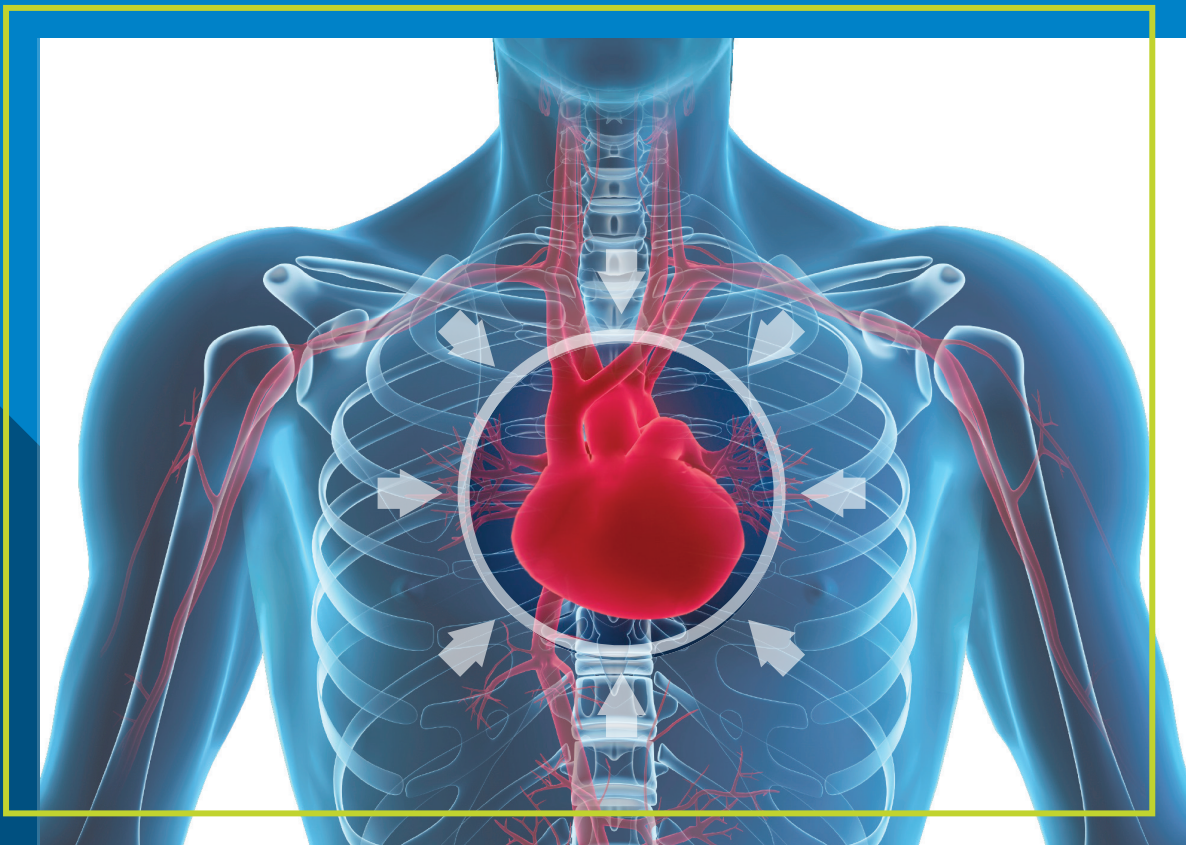
As the heart's electrical system reorganises, the heart struggles for blood. By moving oxygenated blood through the heart, CPR provides critical help to the heart muscle and reduces the potential for damage.



# 3

## CPR EVACUATES BLOOD FROM THE ENLARGED HEART

After four minutes without CPR, the arteries have quit, but the veins continue delivering blood to the heart. This enlarges the heart's volume by about 50% — which makes a shock ineffective because the heart is too full of blood to resume pumping. Chest compressions are critical at this point as they can restore the heart's normal volume and enable a shock to work. After four minutes, a cardiac arrest victim will always require CPR before a shock is delivered.



# AEDs DETERMINE WHEN A SHOCK IS NEEDED

## NO SHOCK ADVISED

An AED will advise a shock only if it detects a shockable heart rhythm, and CPR is critical to establishing a shockable rhythm. Without high-quality CPR, the likelihood of a successful shock is greatly diminished.



## SHOCK ADVISED

If the AED detects a shockable rhythm, it will provide a defibrillating shock. This stops the abnormal electrical activity and allows the heart the chance to resume a normal rhythm. CPR will still be needed to help the heart recover, so it is important to resume compressions after the shock is delivered.

# TO PERFORM HIGH-QUALITY, HANDS-ONLY CPR:

- Push hard and fast in the center of the victim's chest
- Maintain a compression depth of 5 to 6 cm
- Allow full recoil of the chest between compressions
- Perform 100 to 120 compressions per minute
- Administer continuous CPR with minimal interruptions (pauses <10 seconds if possible)

Any CPR is better than no CPR but aim for high-quality CPR.



All ZOLL® AEDs include integrated, real-time CPR feedback technology developed to meet the recommended guidelines of the AHA and ERC.

To learn more visit [zoll.com/aeds](https://zoll.com/aeds)