

A stylized blue hand is shown holding a large, bold blue number '5'. The hand is rendered in a simple, graphic style with white outlines. The background is a gradient of blue, transitioning from a lighter shade at the top to a darker shade at the bottom.

**5**

**MISTAKES  
TO AVOID  
DURING  
CPR**

**ZOLL®**

# The 2013 AHA Consensus Statement on CPR Quality reinforces this message:

*Patient survival is linked to the **quality** of CPR.<sup>1</sup>*

This e-book discusses 5 mistakes to avoid during CPR and offers tips on maximizing CPR performance.



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The consensus statement is focused on the critical parameters of CPR that can be enhanced to help trained providers optimize performance during cardiac arrest in an adult or a child.<sup>1</sup>

The expert panel recommends that CPR providers optimize the individual components of chest compression delivery in this order:

1. Compression fraction
2. Compression rate
3. Compression depth
4. Avoidance of leaning
5. Avoidance of excessive ventilation

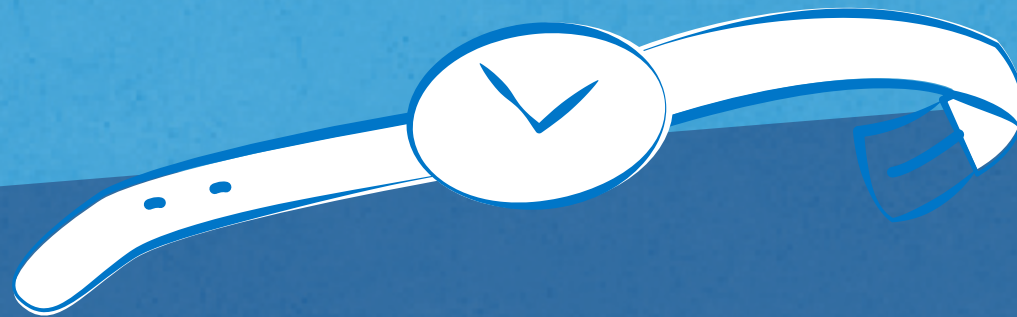
CPR is stressful, and it is difficult to know whether you are hitting the mark on these parameters.



**5** MISTAKES  
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# 1 GUESSING THE TIME ON-CHEST

The chest compression fraction, or CCF, quantifies the amount of time that compressions are actually delivered. The CCF should exceed 80%, and limiting interruptions can significantly improve it. Don't guess. Measure active compression time and set training expectations to achieve a CCF of >80%.



## ZOLL SOLUTION:

With CPR Dashboard™, a CPR idle timer starts after 10 seconds without compressions. And RescueNet® Code Review offers a complete retrospective snapshot of the code event, allowing for improved training protocols based on hospital-specific data.

## 5 MISTAKES TO AVOID DURING CPR

# 2

## COMPRESSING TOO SLOW OR TOO FAST

If the rate is too slow, the heart will fill with blood, but it won't be delivered to vital organs. Too fast and the heart will not fill sufficiently, so blood flow will be impeded for a different reason. The target rate is between 100 and 120 compressions per minute.



### ZOLL SOLUTION:

CPR Dashboard™ provides a real-time rate reading, and a metronome paces at the minimum rate of 100.



### 5 MISTAKES TO AVOID DURING CPR

# 3

## SHALLOW COMPRESSIONS

Compressing less than two inches may not generate the critical blood flow needed to deliver oxygenated blood to the heart and brain.



### ZOLL SOLUTION:

CPR Dashboard™ provides a real-time depth reading, and if compressions are too shallow, the defibrillator will audibly prompt “Push Harder.”

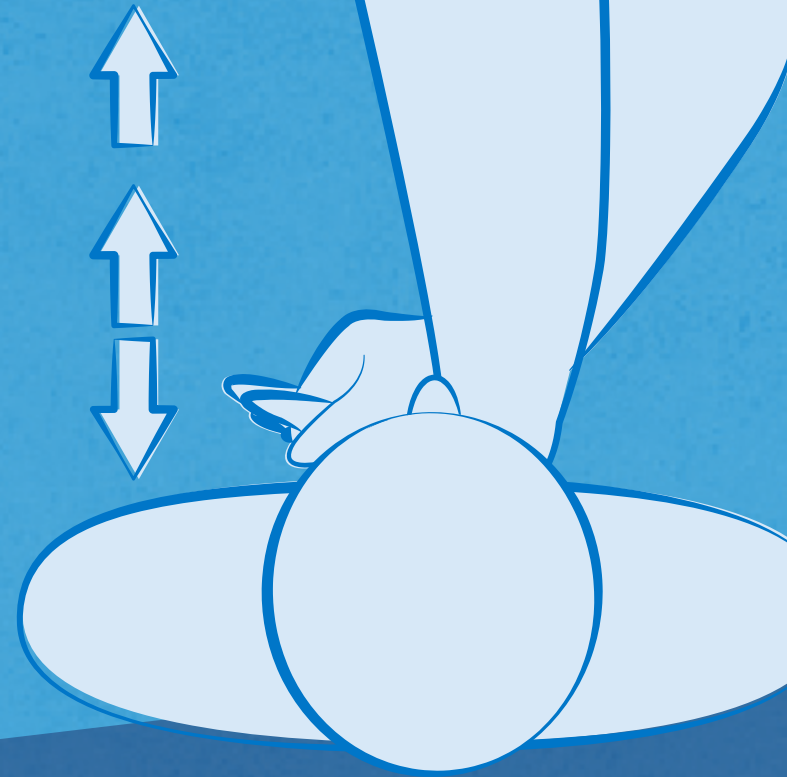


### 5 MISTAKES TO AVOID DURING CPR

# 4

## RESIDUAL LEANING

When a rescuer leans over a patient's chest, full chest recoil is inhibited. Full recoil allows the heart to refill with venous blood before the next compression so that output can be maximized with each compression.



## ZOLL SOLUTION:

CPR Dashboard™ has a compression release indicator so you know you are fully releasing and not leaning.

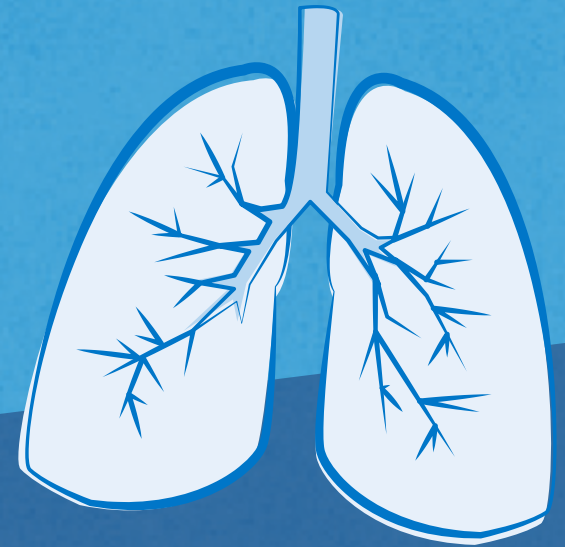


## 5 MISTAKES TO AVOID DURING CPR

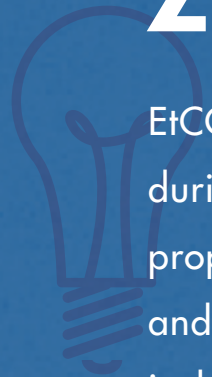
# 5

## EXCESSIVE VENTILATION

The goal is to provide sufficient oxygen to the blood without impeding perfusion. Aim for a rate of less than 12 (8-10) breaths per minute to minimize the impact of positive-pressure ventilation on blood flow.



### ZOLL SOLUTION:



EtCO<sub>2</sub> monitoring provides valuable information during a resuscitation event, including verification of proper ET tube placement, ongoing airway patency and return of spontaneous circulation. Capnography is the most reliable means to track ventilation quality and frequency.




### 5 MISTAKES TO AVOID DURING CPR



Until recently, technology to help rescuers performing CPR was virtually nonexistent. They were on their own when performing this critical skill under highly stressful circumstances.

In systems that have integrated new technology and have focused on improving their CPR quality, both in and out of the hospital, survival rates from sudden cardiac arrest have doubled, or even tripled.<sup>2,3</sup>

Delivering high-quality CPR is difficult. When it comes to helping you provide the best CPR possible, no one offers you as much as ZOLL.



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# Success Depends on Your CPR Quality

Through better measurement, training, and systems-improvement processes of CPR quality, we can have a significant impact on survival from cardiac arrest and eliminate the gap between current and optimal outcomes.<sup>1</sup>

<sup>1</sup>Meaney PA, et al. *Circulation*. June 25, 2013: e-pub ahead of print.

<sup>2</sup>Bobrow BJ, et al. *Circulation*. 2011;124 (21 Supplement): A208.

<sup>3</sup>Sell RE, et al. *Circulation*. 2009;120 (18 Supplement): S1441

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