

**AED Plus®**

**ZOLL®**



*The Best Support  
For Rescuers*

# CPR Required

The latest European Resuscitation Council (ERC) Guidelines, issued in 2010, are clear: successful defibrillation requires high-quality CPR performed at the proper depth and rate. When it's time for CPR, the AED Plus® with Real CPR Help® provides the best support to help save a life.



*The CPR hand-placement landmark contains a sensor that detects and measures chest compressions.*

Whether a shock is advised or not, the 2010 Guidelines say that rescuers should focus on delivering high-quality CPR.<sup>1</sup> If no shock is advised, only high-quality CPR can potentially save a victim. That's because only good CPR can restore the heart rhythm to one required for a shock to work.

Even when an AED says "Shock Advised," high-quality CPR should begin immediately after shock delivery. Once shocked, the heart struggles for blood as it tries to reorganize and restore its natural beat. By moving blood through the heart, and

back into the heart muscles themselves, CPR provides critical help to the struggling heart. Without this help, a shock alone may prove ineffective, and the victim may not be resuscitated.



*Audio prompts match the displayed text.*

## Knowledge Is Power

The ERC 2010 Guidelines recommend that rescuers push hard to a depth of at least 5 centimeters (or 2 inches) but no deeper than 6 centimeters at a rate of at least 100 compressions per minute. But how do you know you're reaching that depth and rate? You shouldn't have to guess—you should know. **Only an AED that offers real-time CPR feedback provides the best support for saving a life.**

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*"The importance of early, uninterrupted chest compressions is emphasised throughout these guidelines."*

— 2010 ERC Guidelines, p. 1220

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## An AED that Helps You Perform High-Quality CPR

Only ZOLL's AED Plus is equipped with Real CPR Help technology. The sensor in the pads lets the AED see each chest compression and lets you know how you're doing. It guides you, with prompts and a real-time bar gauge, to the recommended depth and rate of compressions.

## A Fully Compliant AED

The AED Plus is the only AED that helps you fully comply with the ERC's 2010 Guidelines because it is the only AED that lets you know when compressions are 5 to 6 centimeters deep. ZOLL updated its Real CPR Help technology to comply with the new Guidelines for compression depth during CPR, reflecting the increase from 4 to 5 centimeters deep to 5 to 6 centimeters deep. To be sure that your CPR complies with the 2010 Guidelines, you need to know when your chest compressions are 5 to 6 centimeters deep. Only the AED Plus can assure this level of compliance.

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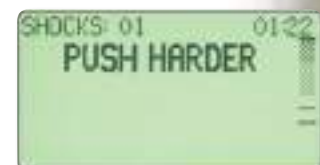
*"Immediate CPR can double or triple survival from VF OHCA [out-of-hospital cardiac arrest]."*

— 2010 ERC Guidelines, p. 1223

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## How It Works

- The CPR-D-padz<sup>®</sup> Electrode senses and reports the motion of the chest compressions to the AED Plus.
- Audio and text prompts relay compression quality.
- The compression depth bar gauge lets you see the depth of each compression in real time.
- The adaptive metronome detects compression rate and guides you to at least 100 per minute.



*The compression depth bar gauge helps you to achieve the recommended depth of between 5 and 6 centimeters.*





## What It Means to See

Because the AED Plus can “see” your compressions, you can see, hear, and read how well you are performing CPR.

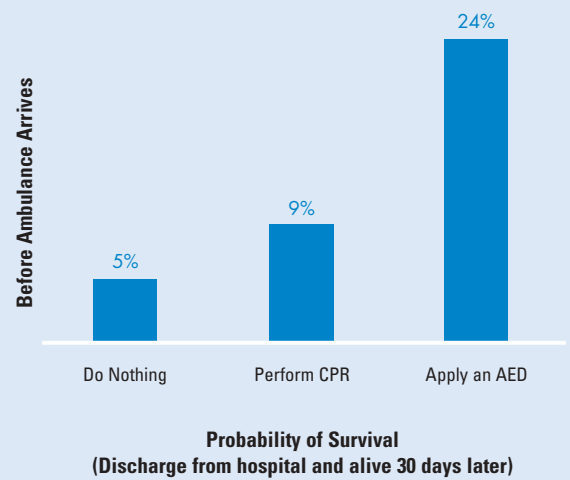
RESCUER ACTIONS	AED PLUS SUPPORT
Not yet started?	“START CPR”
Stopped?	“CONTINUE CPR”
Too slow?	Adaptive metronome speeds you up
Not deep enough?	“PUSH HARDER”
Performing good CPR?	“GOOD COMPRESSIONS”
Want to see how you’re doing?	Visible bar gauge indicates depth of compressions



# THE CASE FOR AEDs

## Survival Increases with Early Intervention

Research shows that the probability of survival goes up dramatically when CPR is performed, and when an AED is applied before an ambulance arrives.\*



## Where is the AED?

Too often, the answer is, “We don’t have one.” Sadly, the same research that demonstrated a nearly fivefold increase in survivability (from 5% to 24%) when an AED is used, also showed that an AED is available only 2% of the time.

\*Weisfeldt ML, et al. *J Am Coll Cardiol.* 2010;55(16):1713–20.

## Real CPR Help Really Works

In the largest hospital caregiver study, research proved conclusively that Real CPR Help significantly increases the quality of chest compressions.<sup>2</sup>

Hospital caregivers had their chest compressions measured first without any help and then again with Real CPR Help from an AED Plus. Of all compressions delivered without any help, only 15% reached the proper depth and rate.

However, when these same caregivers were tested with Real CPR Help, 78% of their compressions were in target—a fivefold increase in CPR quality.

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*“Rescuers can be assisted to achieve the recommended compression rate and depth by prompt/feedback devices that are either built into the AED or manual defibrillator...”*

— 2010 ERC Guidelines, p. 1283

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## The Benefits of Ownership

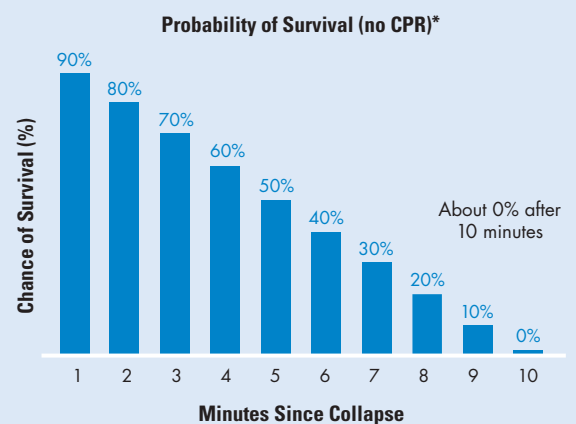
The AED Plus can help your organization’s bottom line. Once installed, the AED Plus has the lowest total cost of ownership of all AEDs on the market, especially when considering the logistics of tracking and changing pads and batteries over the life of the AED. Thanks to the long shelf life of the consumables, when you compare the cost of maintenance over 10 years, this AED is the most cost-effective unit to own. The AED Plus is powered by lithium batteries (available from retail outlets) that last five years, and the CPR-D-padz Electrode lasts five years as well.



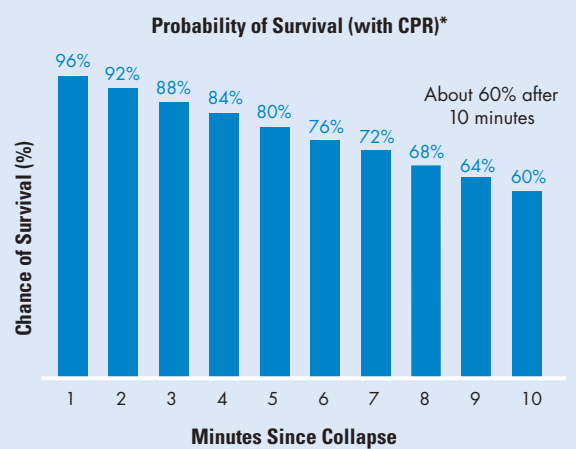
# THE CASE FOR CPR

## Quality Buys Time

The ERC's 2010 Guidelines note that if bystanders do nothing for a collapsed victim, the chance of survival drops about 10% every minute.



But if bystanders can immediately begin CPR and keep it up, then the chance of survival only drops 3% to 4% per minute. At that rate, approximately 10 minutes after collapse, the chance of survival remains at least 60%.



\*Source: ERC Guidelines for Resuscitation 2010. *Resuscitation*. 2010;81:1278.

## The Best Support

No other AED supports a rescuer as thoroughly as the AED Plus because it includes the following:

- A one-piece CPR-D-padz Electrode for quick, easy application. Pull-tabs expose the conductive gel on each pad only when it is in direct contact with the skin, limiting the chance of gel contamination.
- A rescue accessory package attached to every CPR-D-padz that contains items critical to a successful rescue.
- A lid that acts as a “passive airway support” to maintain the victim’s open airway.
- A back-lit display screen that provides simultaneous text with every audio prompt, and a circle of lighted graphical icons that show what to do.
- A display screen that presents the elapsed time and number of shocks delivered, critical information needed by EMS personnel when they arrive.
- Real CPR Help. No other AED can see the rescuers chest compressions and guide them to the required depth and rate. Other AEDs make you guess when your compressions are deep enough. Only the AED Plus lets you know.

*The rescue accessory pack comes with all the additional tools you may require during a rescue, from scissors to non-latex gloves.*



### References:

<sup>1</sup> European Resuscitation Council Guidelines for Resuscitation 2010. *Resuscitation*. 2010;81(10):1219–1452.

<sup>2</sup> Peberdy MA, et al. *Resuscitation*. 2009;80(10):1169–74.

ZOLL Medical Corporation, an Asahi Kasei Group company, develops and markets medical devices and software solutions that help advance emergency care and save lives, while increasing clinical and operational efficiencies. With products for defibrillation and monitoring, circulation and CPR feedback, data management, fluid resuscitation, and therapeutic temperature management, ZOLL provides a comprehensive set of technologies that help clinicians, EMS and fire professionals, and lay rescuers treat victims needing resuscitation and critical care. For more information, visit [www.zoll.com](http://www.zoll.com).

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