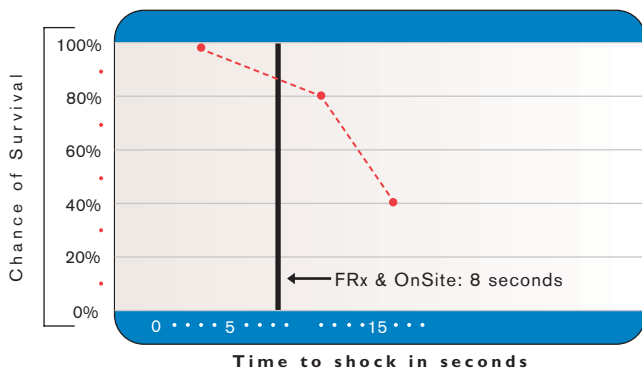


Quick Shock: The HeartStart Advantage

Quick Shock

Quick Shock is a unique feature offered only by Philips on the HeartStart FRx and HeartStart OnSite Defibrillators. Both devices can deliver a shock in less than 10 seconds after the end of a CPR pause. No other automated external defibrillator (AED) is able to do this as quickly.

Survival is closely linked to the speed of shock delivery after CPR



Survival data: 7 minute ventricular fibrillation model from Yu et al.³

CPR helps

For longer down-time patients (e.g., response time longer than 5 minutes), high quality CPR prior to defibrillation shock can help improve survival to hospital discharge.^{1,2}

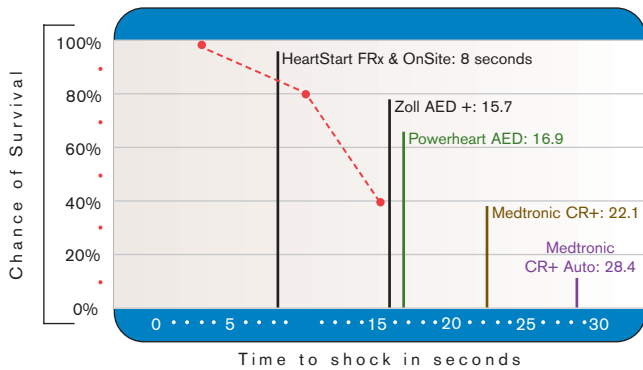
Quick Shock maximizes the benefits of CPR

The beneficial effect of CPR disappears very rapidly once it is stopped, so time to shock after CPR is very important.^{3,4} Quick Shock helps by minimizing the interruption of CPR chest compressions, thereby increasing the chance that a shock will result in a successful return to spontaneous circulation.

Peer-reviewed research supports fast shock

Two independent articles published in *Circulation* support the design intent of Quick Shock. In one article, Dr. Yu et al. concluded, "Interruptions of precordial compression for rhythm analysis that exceed 15 seconds before each shock compromise the outcome of CPR and increase the severity of post-resuscitation myocardial dysfunction."³ A second study by Dr. Eftestol et al. similarly concluded, "The interval between discontinuation of chest compressions and delivery of a shock should be kept as short as possible."⁴ Simply put, getting a shock to the heart as soon as possible after CPR can aid in the return of spontaneous circulation, potentially saving more lives.³

Survival is closely linked to the speed of shock delivery after CPR



Survival data: 7 minute ventricular fibrillation model from Yu et al.³

How does HeartStart's Quick Shock compare against other devices?

The Quick Shock feature — less than 10 seconds to deliver a shock following a CPR pause — makes the HeartStart OnSite and FRx the fastest AEDs with respect to this critical measure, as indicated in the graph above. The HeartStart FRx and OnSite are able to deliver a shock in as little as 8 seconds. Other technologies fall farther out on this curve, wasting the benefits of CPR. No other manufacturer's device is even close to the HeartStart OnSite and FRx Defibrillators.

Philips HeartStart Defibrillators – An excellent choice

Quick Shock is one of the innovative capabilities that set Philips HeartStart Defibrillators apart. HeartStart Defibrillators are backed by more peer-reviewed research than any other defibrillator⁵ and have provided more than 4.5 billion hours of operational service to customers. Philips Medical Systems is an \$8 billion organization with over 225,000 automated external defibrillators shipped, making it the market leader.⁶

References

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- ⁵ Philips researchers have published twenty-one peer reviewed medical journal manuscripts on the core technology of the Philips HeartStart Defibrillators.
- ⁶ Frost and Sullivan, World External Defibrillator Study, June 2002.

To learn more about Quick Shock or Philips HeartStart Defibrillators call **1.800.453.6860** or visit **www.philips.com/heartstart**

Philips Medical Systems is part of Royal Philips Electronics

On the Web

www.philips.com/heartstart

Via email

medical@philips.com

By fax

+31 40 27 64 887

By postal service

Philips Medical Systems
3000 Minuteman Road
Andover, MA 01810-1085

Asia

Tel: +852 2821 5888

Europe, Middle East and Africa

Tel: +31 40 27 63005

Latin America

Tel: +55 11 2125 0764

North America

Tel: +1 800 934 7372

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