

# Quick Shock the HeartStart advantage

#### **Quick Shock**

With the Quick Shock feature, Philips HeartStart automated external defibrillators (AED) can deliver a shock typically in less than eight seconds after the end of a CPR period.

### **CPR** helps

Studies have revealed that CPR is even more beneficial than previously realized, particularly for longer downtime cardiac arrest patients.<sup>1,2</sup>

#### **Quick Shock increases the benefits of CPR**

The beneficial effect of CPR disappears rapidly once it is stopped, so time to shock after a CPR period is very important.<sup>3,4</sup> Quick Shock limits the duration of the pause after CPR chest compressions, which may increase the chance a shock will result in a successful return to spontaneous circulation.<sup>5</sup>

#### 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."<sup>3</sup> A second study by Dr. Edelson et al. similarly concluded, "The interval between discontinuation of chest compressions and delivery of a shock should be kept as short as possible."<sup>4</sup> Simply put, getting a shock to the heart quickly after CPR can aid in the return of spontaneous circulation, potentially saving more lives.<sup>4</sup>



## How does HeartStart's Quick Shock compare to other devices?

The American Heart Association, European Resuscitation Council and the International Committee on Resuscitation emphasize the importance of minimizing pauses in CPR during a rescue. 6,7,8

HeartStart AEDs can deliver a shock typically in less than eight seconds after the end of a CPR period which makes HeartStart AEDs among the fastest with respect to this critical measure.9

## 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 than 40 published studies<sup>10</sup> and have provided more than 45 billion hours of operational service to customers. Philips Emergency Care is a \$250 million business with more than 2.5 million automated external defibrillators shipped.



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

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.<sup>3</sup>

#### References

- 1 Cobb LA, Fahrenbruch CE, Walsh TR, et al. Influence of Cardiopulmonary Resuscitation Prior to Defibrillation in Patients with Out-of-Hospital Ventricular
- Fibrillation. JAMA. 1999 Apr 7; 281(13):1182-8. 2 Wik L, Hansen TB, Fylling F, et al. Delaying Defibrillation to Give Basic Cardiopulmonary Resuscitation to Patients With Out-of-Hospital Ventricular Fibrillation: A Randomized Trial. JAMA. 2003 Mar 19; 289(11):1389-95.
- 3 Yu T,Weil MH, Tang W.Adverse Outcomes of Interrupted Precordial Compression During Automated Defibrillation. Circulation. 2002; 106:368-372. 4 Edelson D, et al. Resuscitation (2006), 71:137-145.

5 American Medical Resource Institute. (n.p.) ACLS: What Does ROSC Mean? Retrieved April 23, 2024 from https://www.aclsonline.us/blog/rosc/. 6 Brouwer, T. F., et. al. (2015). Association between chest compression interruptions and clinical outcomes of ventricular fibrillation out-of-hospital cardiac arrest. Circulation, 132(11), 1030–1037. https://doi.org/10.1161/circulationaha.115.014016.

7 Olasveengen, T. M., et. al. (2021). European Resuscitation Council guidelines 2021: Basic life support. Resuscitation, 161, 98–114. https://doi. org/10.1016/j.resuscitation.2021.02.009.

8 ILCOR staff. (2022). Minimizing pauses: Systematic Review. International Liaison Committee on Resuscitation. Retrieved 24 April 2024 from https:// costr.ilcor.org/document/bls-358-minimizing-pauses

9 Data on file at Philips.

10 Forty-two peer-reviewed manuscripts have been published on the core technology of Philips HeartStart defibrillators.

\* Selected AED models shown in the graph utilize hands-free algorithms that do not use artifact-filtering for analysis.

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