

Eliminate the mattress effect

When a Code Blue is called, you rely on your equipment and training to provide the best possible patient care. You know CPR, and the force required to compress the chest at least two inches, but how much of that force is actually going to the patient? Compression of the mattress, instead of the chest wall, can lead to an unrecognized decline in CPR quality. This is called the “mattress effect”.

The American Heart Association states:¹

Poor quality CPR is a
preventable harm

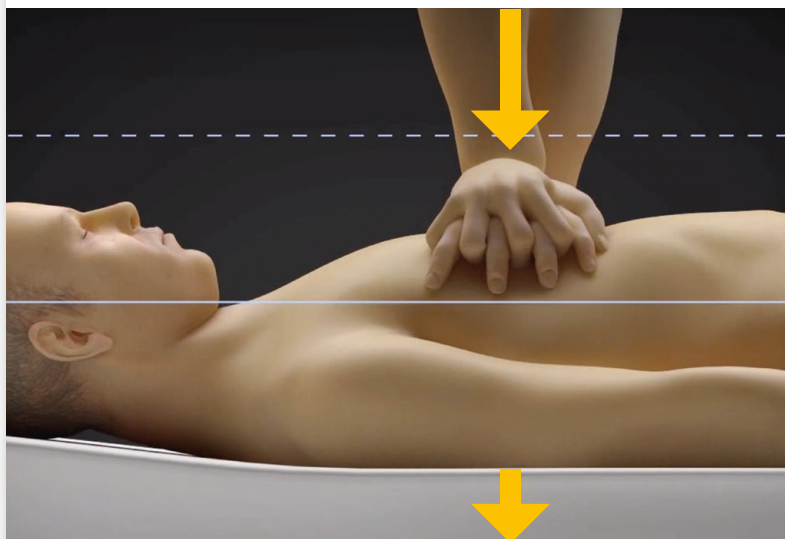
The **guidelines**²

- | | |
|-----------------------|-----------------------------|
| Minimize pauses | 50/50 duty cycle |
| Depth: 2.0-2.4 inches | Full chest recoil |
| Rate: 100-120 bpm | Avoid excessive ventilation |

35-40%

of total compression depth is accounted for by mattress compression during manual CPR.³

CPR quality is adversely affected when performed on a mattress, regardless of mattress type and whether or not a backboard is placed under the patient, rendering accelerometer based feedback ineffective.^{3,4,5}



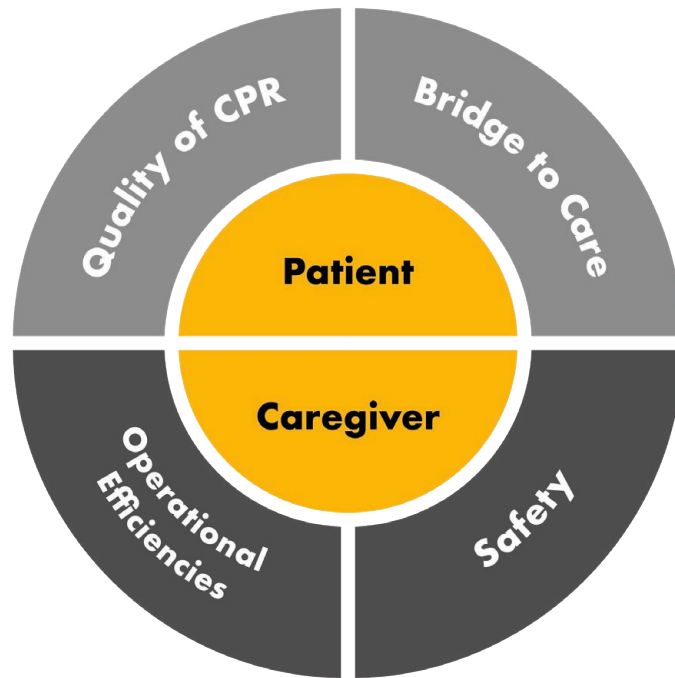
The **Answer**

LUCAS[®] 3, v3.1
chest compression system

The LUCAS device provides high-quality, guidelines-consistent compressions, helping eliminate the mattress effect.



LUCAS
addresses
more than
CPR quality



The LUCAS chest compression system helps emergency care teams do what they do best — save lives. Knowing that high-quality chest compressions are constantly being administered, caregivers can focus on other life-saving interventions and avoid body strain injuries during extended resuscitations. From the field to the Cath Lab, LUCAS is your partner in life support, providing high-quality guidelines-consistent compressions in any environment for as long as needed.*

For further information, please contact your Stryker representative, call us at 800 442 1142 (U.S.), 800 668 8323 (Canada) or visit our website at strykeremergencycare.com

*See LUCAS Instructions For Use for details on environmental and operational specifications.

1. Resuscitation Education Series: Educational Strategies to Improve Outcomes From Cardiac Arrest: A Scientific Statement From the American Heart Association. *Circulation*. 2018; 138:e82-e122.
2. 2015 AHA Guidelines Update for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care. *Circulation*. 2015;132:S313-S573.
3. Perkins GD, Kocierz L, et al. Compression feedback devices over estimate chest compression depth when performed on a bed. *Resuscitation*. 2009; 80:79-82.
4. Perkins GD, Benny, Robert, et al. Do different mattresses affect the quality of cardiopulmonary resuscitation? *Intensive Care Medicine*. 2003; 29(12):2330-2335
5. Jolife AB internal test report on file FAD20181012-1

The LUCAS 3 device is for use as an adjunct to manual CPR when effective manual CPR is not possible (e.g., transport, extended CPR, fatigue, insufficient personnel).



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