

SAVING UVES IS YOUR POVER

stryker

LUCAS® 3, v3.1

chest compression system

Consistency. It's a powerful thing.

The LUCAS chest compression system helps emergency care teams around the world do what they do best—save lives. With Guidelines-consistent, high-quality chest compressions and fewer interruptions than manual CPR, the LUCAS device delivers reliability until the job is done.



Keep your team safe

- Enhances caregiver safety when providing CPR during transport¹
- Allows paramedics to maintain distance while resuscitating patients affected by infectious diseases $^{\rm 2}$
- Reduces the risk of CPR related caregiver injuries $^{\scriptscriptstyle 3},$ x-ray exposure and can decrease caregiver fatigue



Improve CPR quality

- Shown to contribute to better patient outcomes⁴
- Enhances blood flow to the brain⁵, heart⁶, and higher $EtCO_2^7$
- Improves CPR metrics^{8,9,10} and reduces interruptions^{11,12}



Bridge to definitive care

- Permits extended multi-hour resuscitations¹³
- Improves CPR quality during transport^{8,9}
- Allows for ECMO/PCI during CPR and enables treatment of the underlying cause



Enhance team efficiency

- Frees up caregivers and enables more efficient use of resources
- Reduces event stress and enables greater focus on treating the underlying condition
- Provides CPR alerts and pauses, and data for post-event review



LUCAS 3, v3.1 at a glance



Low profile for easy placement No weight limit

Keep the device in position

Charge device in case



Top 3 reasons to choose the LUCAS device

Quick. Easy. Dependable.

- Easy application and simple 1-2-3 step user interface allows high-quality CPR with an interruption of less than 7 seconds $^{\rm 14}$
- **99%** of users rate the LUCAS device easy or very easy to use¹⁵
- Never miss a beat, **99%** documented operational reliability¹⁶



A lifesaving legacy

- Backed by the highest level of evidence¹⁶
- One of the most studied mCPR devices on the market with over 200 associated publications and randomised control trials
- Over 15 years of legacy with tens-of-thousands of active devices available for emergency services around the world



Reduce stress throughout the continuum of care

- Calms the event by eliminating the need to manage CPR quality and provider rotation
- Allows the caregiver to focus on treating the underlying cause(s)
- Drives team performance and wirelessly provides post-event insights (via Bluetooth and Wi-Fi) to drive continuous improvement.

Setup options

Designed with enhanced data capabilities for better post-event reporting and asset management, the LUCAS device can be configured to meet your protocols within your LIFENET[®] System account using Wi-Fi and Bluetooth connectivity.¹⁷



Adjustable rate: 102, 111, or 120 compressions per minute–fixed or variable during operation

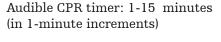


Adjustable depth: 45 to 53 \pm 2mm (fixed during operation)



Adjust ventilation alerts, pause length and count







Auto-lowering of piston (AutoFit or QuickFit)



Pressure pad release of 10mm to allow for chest rise during ventilation



Wireless post-event reporting of key metrics (e.g. time, rate, number of pauses >10sec, event timeline) direct to your inbox



Merge post-event reports with data from the LIFEPAK®15 monitor/ defibrillator and LIFEPAK 20e defibrillator/monitor with CODE-STAT™11 data review software



Receive notifications for upcoming and missed service, battery life and fleet status





- 1. Becker L, Zaloshnja E, Levick N, et al. Relative risk of injury and death in ambulances and other emergency vehicles. Accident analysis and prevention. 2003;35(6): 941-948.
- $2. \ European \ Resuscitation \ Council \ COVID-19 \ Guidelines \ (https://erc.edu/sites/5714e77d5e615861f00f7d18/content_entry5ea884fa4c84867335e4d1ff/5ea885f34c848673 \ 35e4d20e/files/ERC_covid19_interactief_DEF.PDF).$
- 3. Jones A, Lee R. Cardiopulmonary resuscitation and back injury in ambulance officers. International Archives of Occupational and Environmental Health. 2005 May;78 (4); 332-336.
- 4. Sporer K, Jacobs M, Derevin L, et al. Continuous quality improvement efforts increase survival with favorable neurologic outcome after out-of-hospital cardiac arrest. *Prehosp Emerg Care*. 2016;14:1-6.
- 5. Carmona Jiménez F, Padró PP, García AS, et al. Cerebral flow improvement during CPR with LUCAS, measured by Doppler. Resuscitation. 2011;82S1:30,AP090.
- Larsen A, Hjornevik A, Bonarjee V, et al. Coronary blood flow and perfusion pressure during coronary angiography in patients with ongoing mechanical chest compression: A report on 6 cases. Resuscitation. 2010;81:493–497.
- Axelsson C, Karlsson T, Axelsson AB, et al. Mechanical active compression-decompression cardiopulmonary resuscitation (ACDCPR) versus manual CPR according to pressure of end tidal carbon dioxide (PETCO2) during CPOR in out-of-hospital cardiac arrest 90HCA). Resuscitation. 2009;80(10):1099-103.
- 8. Putzer G, Braun P, Zimmerman A, et al. LUCAS compared to manual cardiopulmonary resuscitation is more effective during helicopter rescue a prospective, randomised, cross-over manikin study. Am J Emerg Med. 2013 Feb;31(2):384-9.
- 9. Gyory R, Buchle S, Rodgers D, et al. The efficacy of LUCAS in prehospital cardiac arrest scenarios: A crossover mannequin study. West J Emerg Med. 2017;18(3):437-445.
- 10. Wyss CA, Fox J, Franzeck F, et al. Mechanical versus manual chest compression during CPR in a cardiac catherisation settting. Cardiovascular Medicine. 2010;13(3):92-96
- 11. Maule Y. Assistance Cardiaque Externe; Masser mieux, mais surtout masser plus. Urgence Pratique. 2011;106:47-48.
- 12. Olasveengen TM, Wik L, Steen PA. Quality of cardiopulmonary resuscitation before and during transport in out-of-hospital cardiac arrest. Resuscitation. 2008;76(2):185-90.
- 13. Forti A, Brugnaro P, Rauch S, et al. Hypothermic Cardiac Arrest With Full Neurologic Recovery After Approximately Nine Hours of Cardiopulmonary Resuscitation: Management and Possible Complications. Ann Emerg Med. 2019;73(1):52-57.
- 14. Levy M, Yost D, Walker R, et al. A quality improvement initiative to optimize use of a mechanical chest compression device within a high performance CPR approach to out-of-hospital cardiac arrest. *Resuscitation*. 2015;92:32-37.
- 15. Pocock H, Deakin CD, Quinn T, Perkins GD, Horton J, Gates S. Human factors in prehospital research: lessons from the PARAMEDIC trial. Emerg Med J. 2016;33(8):562-568.
- 16. Rubertsson S, Lindgren E, Smekal, D et al. Mechanical chest compressions and simultaneous defibrillation vs conventional cardiopulmonary resuscitation in out-ofhospital cardiac arrest. The LINC randomized trial. JAMA. 2013;311(1):53-61
- 17. Setup options should be changed only under the direction of a physician knowledgeable in cardiopulmonary resuscitation who is familiar with the literature in this area. The setup options are optional. If NOT applied, the device will operate according to its factory default settings, which are identical to LUCAS 3, v3.0 and LUCAS 2, v2.2. LUCAS 3, v 3.1, LIFENET and CODE-STAT are available in major markets. For details on local regulatory status, availability and data connectivity, please contact your local Stryker sales representative.

Emergency Care

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