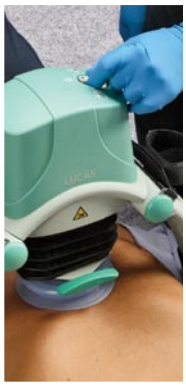
LUCAS™ Chest Compression System



The world leader in defibrillation technology now offers you a solution to provide quality compressions to support circulation. The LUCAS Chest Compression System is designed to perform external chest compressions on adult patients for both out-of-hospital and hospital use.

The AHA/ERC Guidelines (Guidelines)[1,2] for CPR stress the importance of circulation during cardiac arrest to ultimately improve patient outcomes. Performing manual chest compressions is exceedingly difficult, and quality varies between responders and deteriorates over time. LUCAS is designed to overcome these problems encountered by responders and provide sustained, quality compressions according to the Guidelines without delays or interruptions.

LUCAS facilitates blood circulation to supply oxygen to vital organs, such as the heart and brain. When attempting to resuscitate a cardiac arrest patient, time is critical for a positive patient outcome. As LUCAS can be used at the scene, during transport in an ambulance, and throughout the hospital, interruptions to compressions are minimized, which helps maintain circulation. Also, since LUCAS limits rescuer fatigue and performs the work of one person, one responder is free to concentrate on other lifesaving therapies.

LUCAS is easy to use and apply to a cardiac arrest patient. LUCAS is stored and easily carried to the scene in its custom backpack. Rugged and compact, LUCAS can be used in a variety of environments. A service plan is included with purchase so customers can be confident in the performance of LUCAS.

DESIGNED TO PROVIDE:

- **Effective, consistent and uninterrupted compressions according to the Guidelines**
- **Good circulation during the patient transport process**
- **Hands-free compressions in most situations**
- **Safety during transportation for both personnel and patient**
- **Ease of use and portability**

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EFFECTIVE, CONSISTENT AND UNINTERRUPTED COMPRESSIONS ACCORDING TO THE GUIDELINES

LUCAS is an easy-to-use system where chest compressions are delivered in the same way and with the same efficiency for all patients. This reduces the impact of extenuating factors, such as transport conditions, rescuer fatigue, and variability in experience level of the caregiver, which can otherwise reduce the effectiveness of resuscitative efforts. LUCAS helps minimize pauses during CPR. It performs 100 compressions per minute with a depth of 2 inches. It also allows for complete chest wall recoil after each compression and provides a 50% duty cycle, which allows for equal compression and relaxation time for the chest wall.

GOOD CIRCULATION DURING THE PATIENT TRANSPORT PROCESS

For patients whose hearts are able to generate little or no cardiac output, the possibility of giving efficient chest compressions throughout transportation to the hospital is a great advantage. LUCAS provides continuous compressions, which prevents a drop in coronary perfusion pressure. Therefore, LUCAS makes it possible to transport the patient with good circulation to the hospital and throughout the hospital for further treatment.

HANDS-FREE COMPRESSIONS IN MOST SITUATIONS

LUCAS is designed for optimal performance in most situations and different surroundings in and outside the hospital. LUCAS consistently performs compressions while the responder is free to provide medication, defibrillation or ventilation. The results of defibrillation are improved when there is minimal delay between chest compressions and shock. With LUCAS performing compressions instead of the rescuer, any delays between chest compressions to defibrillation are minimized.

SAFETY DURING TRANSPORTATION FOR BOTH PERSONNEL AND PATIENT

When LUCAS provides the compressions, the responder can be safely seated with a seat belt during transport.

EASE OF USE AND PORTABILITY

LUCAS can be applied to the patient with interruptions in compressions of less than 20 seconds, whether the patient lies on the ground, on a bed, or on a stretcher in the ambulance. One control knob makes operation as easy as 1-2-3. LUCAS is lightweight and has an ergonomic and compact design. Its backpack (padded carrying bag) makes it easy to carry to the patient in a variety of emergency situations.

[1] 2005 American Heart Association (AHA) Guidelines for Cardiopulmonary Resuscitation (CPR) and Emergency Cardiovascular Care (ECC)

[2] European Resuscitation Council (ERC) Guidelines for Resuscitation 2005

COMPRESSIONS

Compression Frequency: 100 compressions per minute

Compression Depth: 2 inches (5 cm)

Compression: Decompression Duty Cycle: 50%

Patients Eligible for Treatment:

- Sternum height of 7.5 –11.9 inches (19–30.3 cm)
- Maximum sternum width of 17.7 inches (45 cm)

OPERATION

Operation: Fully pneumatic (compressed air)

Power Source:

- Breathing air from portable compressed air cylinder
- Air outlet in hospital/ambulance with nominal supply pressure within 46–87 psi (3.17 – 6 bar)

Air Consumption: 1.84 ft^3 per minute (52 L/minute)

Operating Temperature: 41 to 104 °F (5 to 40°C)

Storage Temperature: -22 to 140°F (-30 to 60°C)

PHYSICAL CHARACTERISTICS

Height (stowed in backpack): 25.6 inches (65 cm)

Width (stowed in backpack): 13.0 inches (33 cm)

Depth (stowed in backpack): 9.8 inches (25 cm)

Air hose length: 10.8 feet (3.3 meters)

Weight (unit only): 13.9 lbs (6.3 kg)

Weight (backpack and included accessories): 5 lbs (2.27 kg)

All specifications are at 25°C unless otherwise stated. Technical data are subject to changes without prior notice.

LUCAS is designed and manufactured by JOLIFE AB in Sweden and distributed exclusively worldwide by Physio-Control, Inc., a division of Medtronic.

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