

# CARDIAC - MECHANICAL CPR DEVICE - ESF

02/07/2023

[EMR, EMT, A-EMT, EMT-I, PARAMEDIC]

## LUCAS Device

### INDICATIONS

1. Adult cardiac arrest patients meeting resuscitation guidelines.
2. Patients that have ROSC prior to transport should have the device placed in the event of re-arrest.

### CONTRA-INDICATIONS

1. Patients that have not yet reached the age of puberty.
2. Patients that are too large where the upper device can't be attached to the back plate without compressing chest.
3. Patients that are too small and with whom the pressure pad can't be pulled down to touch the sternum.

### PROCEDURE

1. Initial arriving responders should follow ACLS or CCR guidelines and immediately initiate high quality chest compressions.
2. The use of the LUCAS device should be sequential:
  - A - Activate** - The green button turns the machine on.
  - B - Back Plate** - Place under patient at the level of the axilla.
  - C - Connect** - Connect claws to the backplate.
  - 1 - Button 1** - Manual piston adjustment, place suction cup to the chest.
  - 2 - Button 2** - Pause, adjusts arm to create suction.
  - 3 - Button 3** - Locks piston and initiates continuous compressions.

Use of the LUCAS should be sequential in both forward and reverse order. Steps should not be skipped, otherwise it might harm the machine.
3. Continue to follow appropriate cardiac arrest algorithm. Pause with button 2 every two minutes for rhythm analysis. Press Button 3 to resume CPR during charge and shock delivery phases.

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	<p>4. If ROSC is obtained, the device should be turned off by pressing and holding the green power button, however the device should be left in place. If resuscitation is terminated device should be removed and disinfected.</p>
<b>SPECIAL CONSIDERATIONS</b>	<ol style="list-style-type: none"><li>1. Most patients should still only be transported after ROSC has occurred. The presence of a Lucas Device does not change normal transport policy.</li><li>2. A patient that has not achieved ROSC, may have transport initiated with a LUCAS Device in operation at paramedic discretion. Examples may include patients that :<ul style="list-style-type: none"><li>• Continue to respond to treatment, i.e. movement such as eye fluttering or hand movement.</li><li>• Are pregnant with a potential viable fetus.</li><li>• Hypothermic arrest patients, including cold water drowning.</li><li>• Regain consciousness with compressions but deteriorate as soon as compressions are stopped.</li><li>• Other atypical situations.</li></ul></li><li>3. If possible, try not to place pads, cables, or electrodes beneath the suction cup. If feedback pucks are in place, they should be removed prior to placement of the suction cup.</li><li>4. If an error occurs the device will give an audible alarm. Press and hold the power button and check the device to ensure it is placed appropriately.</li><li>5. If a failure or error occurs that cannot be quickly remedied, remove the device, and continue with high quality manual chest compressions.</li><li>6. If patient has disruptive movement during use of the mechanical CPR device, consider use of Interventional Analgesic – See Pain Management Protocol</li><li>7. Consideration should be given for STEMI patients to have the backplate placed prior to transport.</li></ol>

