



Jackson Hole Fire/EMS Operations Manual

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Title: **LUCAS MECHANICAL
COMPRESSION DEVICE**

Division: 17

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LUCAS MECHANICAL COMPRESSION DEVICE (Procedure Guideline)

SCOPE OF PRACTICE: Standing Order for all EMS providers

PURPOSE: The LUCAS device is designed to provide automated mechanical external chest compressions.

INDICATIONS: Patients requiring mechanical chest compression in cardiac arrest that the device will fit appropriately.

CONTRAINDICATIONS:

- Patients who do not fit within the device.
 - Patients who are too large and with whom you cannot press the pressure pad down 2 inches.
 - Patients who are too small and with whom you cannot pull the pressure pad down to touch the sternum

PROCEDURE:

1. Manual chest compressions should be initiated immediately while the LUCAS device is being prepared and placed on the patient.
2. Remove clothing from chest to ensure skin contact with pressure pad.
3. Turn the device on and remove from the case.
4. Place the yellow back plate under the patient, just below the patients arm pits and centered on the patients nipples.
5. Continue manual compressions while attaching the Lucas to the back plate.
6. Limit interruptions of compressions to less than 10 seconds.
7. Ensure that defibrillation pads will be clear of the location of the suction pad.
8. Press the adjust mode button to position the compression arm to the chest. Align the lower edge of the pressure pad so that the suction cup is immediately above the end of the sternum.
9. Press the pause button to lock in the start position.
10. Press the Active 30:2 button or the Active continuous button to begin compressions.
11. Utilize the pause button as necessary during rhythm or pulse checks or upon ROSC.

12. Place the neck roll behind the patient's head and attach the straps to the LUCAS device.
 - a. This will prevent the LUCAS from migrating toward the patient's feet.
13. Place the patients arms in the straps provided.
14. One crew member should be assigned to monitor the device and ensure that it remains in the correct position throughout the resuscitation.
15. Defibrillation can and should be performed with the LUCAS device in place and in operation
16. If disruption or malfunction of the LUCAS device occurs, immediately revert to manual compressions.