Approved 9/2/26, Effective 1/15/27, replaces all prior versions

# 4M – ACTIVE COMPRESSION DECOMPRESSION CPR ADULT

EMERGENCY MEDICAL RESPONDER

EMT

EMT-INTERMEDIATE 85

ADVANCED EMT

PARAMEDIC

Indication:

Adult non-traumatic cardiac arrest.

Contraindications:

Spontaneous circulation/pulse.
Traumatic cardiac arrest (hanging/strangulation is NOT considered traumatic in this context).
Sternotomy less than estimated 6 months time.

Technique:

1. The correct compression/decompression rate is 80 cycles/minute when using the ResQPUMP®. Either the built-in two-tone metronome or an external metronome set to 80 should guide the rate.

2. The correct compression depth is 2 inches in adults when using the ResQPUMP®. Excessive depths can lead to chest wall trauma and chest wall trauma can lead to tension pneumothorax.

3. The correct compression force is whatever occurs at no more than 2 inches of depth in adults when using the ResQPUMP®. In many adults, this will be at or very near 40kg of force as measured on the device's force gauge (which should read as 0kg of force when pulled out for patient use), but let the depth determine the force. Do not start out trying to achieve a certain force regardless of depth. Excessive force can lead to chest wall trauma and chest wall trauma can lead to tension pneumothorax.

4. Any compression with the ResQPUMP® should be directly midline of the sternum. Avoid placing the ResQPUMP® laterally to the sternum. Improper placement can lead to chest wall trauma and chest wall trauma can lead to tension pneumothorax.

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**Protocol 4M: Active Compression Decompression CPR, Adult, cont.**

Technique (cont):

5. The correct compression technique with the ResQPUMP® involves the compressor's shoulders being over and in line with the sternum, producing a direct down (compression) and up (decompression) cycle. Even slight lateral movements of the ResQPUMP® can cause loss of suction between the device and the patient's chest, losing the active decompression advantage of the ResQPUMP®.

6. The correct decompression force of the ResQPUMP® is at 10kg as measured on the device's force gauge. Additional decompression force is unnecessary and could lead to chest wall trauma and chest wall trauma can lead to tension pneumothorax.

7. Avoid any ResQPUMP® use when standing. All ResQPUMP®-assisted compressions should be performed when kneeling immediately next to the patient's side.

8. Avoid any ResQPUMP® use when the patient is in motion. This includes during movement of the patient to the ambulance for transport. This includes during ambulance transport of the patient to an Emergency Department.

9. If unable to achieve consistent chest wall suction and active decompression with the ResQPUMP®, discontinue its use and revert to manual chest compressions at 110 compressions/minute. Strategies to improve chest wall suction include wiping away any moisture on the chest and avoiding placement of therapy electrodes (defibrillation pads) in the compression/decompression site.



