

button. Chest compressions shall resume immediately after the defibrillation without a pulse check.

- b. If the AED detects a non-shockable rhythm, it will state “No Shock Advised. Start CPR.”
 - c. After three minutes, the defibrillator will prompt, “Stand Clear. Analyzing Now. Stand Clear.” and the analysis will begin automatically.
 - d. If at any time motion interferes with the analysis, the AED will state “Motion Detected. Stop Motion.” Make certain no one is touching the patient, wires or device. The device will automatically analyze when the motion stops.
6. If the patient loses pulses at any time (an EMS witnessed arrest), immediately initiate an AED analysis by pressing the right soft-key.
 7. Documentation of AED use
 - a. Record comments about the incident regarding AED use, bystander CPR and other therapies in the patient care record.
 - b. AED information shall be downloaded as soon as possible (*Ref 9.04 Procedure for Downloading AED and LifePak 15 Data*).

B. Synchronized Cardioversion [ALS]

1. Select the guideline-determined energy setting on the defibrillator unit.
2. Push the synchronizer button and verify that the device is sensing QRS complexes.
3. Place the pads in accordance with the pictures on the electrode pad packaging (*Ref. 7.04 A.4.d.*).
4. If ‘Adult’ AED pads have been attached, they shall be connected directly to the LP15 (via an AED pad adaptor if necessary). If ALS arrives and ‘Infant/Child’ AED pads have been attached, they must be removed and replaced with the salmon label ‘Pediatric’ LP15 electrode pads.
5. Clear the area around the patient by loudly stating, “Clear! I’m clear, you’re clear, everybody’s clear” while visually verifying that you and all other persons are clear of the patient.
6. Push and hold the “shock” button on the defibrillator unit until the cardioversion has occurred.

C. Defibrillation [ALS]

1. Select the guideline-determined energy setting on the defibrillator unit.
2. Place the pads in accordance with the pictures on the electrode pad packaging (*Ref. 7.04 A.4.d.*).
3. If ‘Adult’ AED pads have been attached, they shall be connected directly to the LP15 (via an AED pad adaptor if necessary). If ALS arrives and ‘Infant/Child’ AED pads have been attached, they must be removed and replaced with the salmon label ‘Pediatric’ LP15 electrode pads.
4. Clear the area around the patient by loudly stating, “Clear! I’m clear, you’re clear, everybody’s clear” while visually verifying that you and all other persons are clear of the patient.
5. Push the “shock” button on the defibrillator unit.

D. Cardiac Pacing – Transthoracic [ALS]

1. Place the pads in accordance with the pictures on the electrode pad packaging (*Ref. 7.04 A.4.d.*).
2. If ‘Adult’ AED pads have been attached, they shall be connected directly to the LP15 (via an AED pad adaptor if necessary). If ALS arrives and ‘Infant/Child’ AED pads have been attached, they must be removed and replaced with the salmon label ‘Pediatric’ LP15 electrode pads.
3. Connect the cardiac monitor limb leads to the patient.
4. Turn on the pacemaker function and observe the ECG monitor screen to verify that the device

- is properly sensing the QRS complexes.
5. Set the initial pacing rate at 60 beats per minute for adults/adolescents (and as directed by on-line medical control for pedi/infant/neonatal patients) and set the electrical current at the minimal setting.
 6. Activate the pacemaker by pushing the appropriate button.
 7. Adjust the electrical current upward in 3 second increments until mechanical capture has been obtained. Then, increase it by approximately 10% to maintain a threshold.
 8. Remember, it is safe to touch the patient during pacing.
 9. To determine capture, feel for carotid or femoral pulse. This may be difficult to assess with the muscle contractions caused by pacing. Additionally, return of pulses should increase the end-tidal CO₂, so it may be used as a guide towards return of circulation.
 10. If there is no mechanical capture (production of pulses) within 20 to 30 seconds of attempted pacing, discontinue the attempt at pacing.

7.05 Cardiopulmonary Resuscitation [BLS/ALS]

Table 7-9 : CPR Parameters, All Ages

Category	Age Range	Ventilation Rate	CPR Ratio	Chest Compression Rate
Neonate	< 1 hr of age	40 - 60 / min	3 : 1	120 / min
Infant	1 hr to < 1 year	15 - 20 / min	15 : 2	100 / min
Child	1 year to < 8 years	15 - 20 / min	15 : 2	100 / min
Adolescent	8 years to < 16 years	8 - 10 / min	30 : 2	100 / min
Adult	≥ 16 years	8 - 10 / min	30 : 2	100 / min

A. Neonatal / “Newly Born” CPR (Less than 1 hour of age)

1. Upon birth, follow 8.03 P. *Childbirth - Emergency (Neonatal/“Newly Born”)*. Upon the indication for chest compressions, position the neonate face-up on a flat, firm surface. Place a folded towel under the shoulders to prevent further flexion of the neck and resultant obstruction of the airway.
2. Place the neonate’s head in a neutral position. Do not hyperextend the neonate’s head and neck as this may collapse the airway. If trauma is suspected, use the jaw thrust maneuver.
3. Begin chest compressions.
 - a. Compress the chest with two hands encircling the chest and compressing the chest with two thumbs on the lower third of the sternum just below the nipple line.
 - b. Compress the sternum at least 1/3rd the depth of the chest.
 - c. Provide 3 chest compressions (at a rate of 120 per minute) to 1 ventilation.
 - d. “Push hard, push fast.” Allow complete recoil of the chest wall between compressions and minimize interruptions of chest compressions.
4. To ventilate, maintain a patent airway and deliver 1 breath with an infant BVM. Maintain a seal using the appropriate sized facemask around the patient’s nose and mouth. Deliver each rescue breath over 1 second and give a sufficient volume to just produce visible chest rise. Place a supraglottic airway as soon as possible and follow the airway management guidelines (8.02 A.1.d.)
5. Any and all umbilical pulse checks should take no more than 10 seconds, and if a pulse is not definitely felt within 10 seconds, chest compressions should be restarted.
6. If there is an umbilical pulse > 60/min., continue with rescue breaths at a rate of 40-60 per minute with frequent checks to ensure pulse remains.