

**ELECTRICAL COUNTERSHOCK
EMMCO WEST ALS GUIDELINE****Criteria:**

- A. Patient with pulseless V-Tach or Ventricular Fibrillation.
- B. Patient with hypotension due to narrow complex tachycardia or V-Tach with a pulse.

Procedure:**A. All Patients:**

1. Dry the chest wall if wet. Do not drip saline or conductive gel across the chest. This results in bridging, which conducts the current through the skin rather than through the heart.
2. Place conductive gel on chest and spread with paddles or place defibrillation pads. (Skin burns result from inadequate electrode gel on paddles and chest, or from inadequate contact between paddles and skin.)
3. Charge defibrillator to appropriate energy level with paddles in hand or after placing defibrillation pads if using a 'hands-off' defib device. Energy settings may differ from typical settings if using a biphasic device.
4. If V-Fib, assure that synchronize switch is OFF. If patient presents with unstable narrow complex tachycardia or V-Tach, assure that synchronizer switch is ON. Refer to appropriate treatment protocol for energy settings.
5. Place paddles with as much anterior/posterior direction of current as possible. Place one paddle just to the right of the upper sternum and below the clavicle, and the other just to the left of the apex, or just to the left of the left nipple in the anterior axillary line. Use twist to distribute conductive gel evenly on chest wall.
6. Recheck the rhythm. "Clear" the area.
7. Apply firm pressure (about 25 lbs.) to paddles; be careful not to lean and let the paddles slip off. This step does not apply if using a 'hands-off' defibrillation system.
8. Simultaneously Depress defibrillator buttons; watch for muscle contraction. Check rhythm and pulse after any defibrillation. Defibrillation should be accompanied by visible muscle contraction by the patient. If this does not occur, the paddles did not discharge. Recheck your equipment.

Notes:

1. Nitroglycerine paste and patches, which are commonly used by cardiac patients, are flammable and may ignite if not wiped from the chest prior to paddle contact.
 2. Rescuer defibrillation may occur if you forget to clear the area or lean against a metal stretcher or patient during the procedure, or if you are in the presence of water, rain or snow
 3. Unsuccessful defibrillation is often due to hypoxia or acidosis. Careful attention to airway management and proper CPR is important.
 4. Defibrillation is not the first step in treating fibrillation due to traumatic hypovolemia. CPR and fluid resuscitation should be started first.
 5. Defibrillation may not be successful in ventricular fibrillation due to hypothermia until the core temperature is above 88°F (31°C). Attempt to defibrillate, but prolonged CPR during rewarming may be necessary before conversion is possible.
 6. Dysrhythmias are common following successful defibrillation. They respond to time and adequate oxygenation. Treat only if persisting >5 minutes.
 7. Damage to the heart muscle is directly related to the amount of energy that is run through it. The lower defibrillation charges are recommended to minimize myocardial damage but still provide the maximum chance of defibrillating the heart.
 8. Knowledge of your defibrillator is important! Delivered energy varies with different machines. Make sure your machine is maintained regularly. Testing with full discharge is recommended weekly. Low energy discharge is recommended daily when operating (a periodic full discharge can also improve battery performance). A chart should be attached to the machine listing actual delivered energy for usual energy levels.
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