

PEORIA AREA EMS SYSTEM
PREHOSPITAL CARE MANUAL

**Transcutaneous Pacing
(TCP) Procedure**

Transcutaneous pacing (TCP) is used to deliver an electrical stimulus to the heart that acts as a substitute for the heart's conduction system and is intended to result in cardiac depolarization and myocardial contraction.

TCP should be utilized for patients with symptomatic bradycardia, namely Type II 2nd Degree AV Block and 3rd Degree AV Block (Complete Heart Block).

1. Confirm the presence of the arrhythmia and the patient's hypoperfusion status.
2. Initiate *Routine ALS Care*, including application of the cardiac monitor using the regular limb leads.
3. Apply the pacing pads to the patient using anterior-posterior placement. Place the negative electrode on the anterior chest between the sternum and left nipple (the upper edge of the pad should be below the nipple line). Place the positive electrode on the left posteriorly to the left of the spine beneath the scapula.
4. Activate the pacer mode and observe a marker on each QRS wave. If the marker is not present, adjust the EKG size.
5. Set the target rate at **70 bpm**.
6. Set the current at **minimum** to start.
7. Activate the pacer and observe pacer spikes.
8. Increase the current slowly until there is evidence of electrical and mechanical capture.
9. Palpate patient's pulse and check BP.
10. If the patient is conscious, you may administer **Versed** 2mg IV/IO for patient comfort.
11. Document the patient's rhythm, vitals & tolerance of pacing and report the results to Medical Control.

Critical Thinking Elements

- Remember to evaluate the effectiveness of external pacing by assessing the electrical capture (presence of pacer spikes on the EKG) and mechanical capture (presence of a pulse).
- TCP may also be effective for a patient in asystole if performed EARLY.