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**PLEURAL DECOMPRESSION**

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1. **INDICATIONS:** When clinical findings reveal a tension pneumothorax (severe respiratory distress, diminished breath sounds on the affected side, tracheal deviation) with rapidly deteriorating vital signs
2. **EQUIPMENT:**
  - 2.1 Pleural decompression kit
  - 2.2 Betadine solution
  - 2.3 12 - 14 gauge angiocatheter
  - 2.4 One-way valve
3. **PROCEDURE:**
  - 3.1 Approved Sites:
    - ▶ 2nd or 3rd intercostal space, mid-clavicular line
    - ▶ 4th or 5th intercostal space, mid-axillary line
  - 3.2 Prep site with betadine
  - 3.3 Firmly but carefully insert the needle at a 90 degree angle just over the superior aspect (superior border) of the rib, through the skin and pleura until air escapes or a distinct "give" is felt. The undersurface of the rib should be avoided to limit injury to the neurovascular bundle. Air should be freely aspirated (if not, you are not in the pleural space)
  - 3.4 Remove the needle
  - 3.5 Attach a one-way valve. Secure with tape
  - 3.6 Recheck breath sounds and continuously monitor cardio-respiratory status.
4. **COMPLICATIONS:**
  - 4.1 lung laceration
  - 4.2 pneumothorax
  - 4.3 hemorrhage secondary to damage to the intercostal artery or vein