



Chest Decompression

Clinical Indications:

- Tension pneumothorax



Procedure:

1. Confirm presence of a tension pneumothorax or identify strong clinical evidence in a rapid deteriorating patient in the setting of major trauma. Consider in the setting of refractory PEA.
2. Locate the insertion site at the second intercostal space at the midclavicular line on the affected side of the chest.
3. Prep the insertion site.
4. Insert the 2 inch, 16 gauge angiocath (1¼ inch, 18 gauge angiocath in patients less than 8 years) with a 10cc syringe attached, by directing the needle just over the top of the third rib (2nd intercostal space) to avoid intercostal nerves and vessels which are located on the inferior rib borders.
5. Advance the catheter 1-2 inches (¾ - 1 inch in patients less than 8 years) through the chest wall. Pull back on the plunger of the syringe as the needle is advanced. Tension should be felt until the needle enters the pleural space. A “pop” or “give” may also be felt. Do not advance the needle any further.
6. Withdraw the needle and advance the catheter until flush with the skin. Listen for a gush or “hiss” of air which confirms placement and diagnosis. Caution: this is frequently missed due to ambient noise.
7. Dispose of the needle properly and **never reinsert into the catheter.**
8. Secure the catheter and rapidly transport the patient providing appropriate airway assistance.

Certification Requirements:

- Maintain knowledge of the indications, contraindications, technique, and possible complications of the procedure. Assessment of this knowledge may be accomplished via quality assurance mechanisms, classroom demonstrations, skills stations, or other mechanisms as deemed appropriate by the local EMS System. Assessment should include direct observation once per certification cycle.