

## A. Introduction

1. Signs and symptoms of tension pneumothorax should be assessed prior to initiating pleural decompression. Signs and/or symptoms that indicate tension pneumothorax generally point to cardiopulmonary compromise and may include any combination of the following:
  - a) Marked dyspnea
  - b) Absent unilateral breath sounds.
  - c) Signs of shock.
  - d) Pale/cyanotic skin.
  - e) Jugular vein distention.
  - f) Decreased compliance during BVM ventilations.
  - g) Tracheal deviation. (Usually a late sign).
  - h) Subcutaneous emphysema.

## B. Procedure

### *Adult Care*

#### ALS

1. Identify the second intercostal space along the mid-clavicular line.
2. Prep the area with an antiseptic prep.
3. **Insert a 10 or 14 gauge**, 3 ¼ inch IV catheter over the top of the third rib on the affected side. You should note the presence or absence of evacuating air through the catheter following insertion. This information must be relayed to the MCP and documented on the ePCR.
4. The mid-clavicular approach is the preferred method, but if there is significant trauma to the anterior portion of the chest, use the intercostal space above the sixth rib mid-axillary on the affected side.
5. The catheter should be inserted until air is released through the needle.
6. Secure the catheter in place with tape.



*Pediatric Care*

**ALS**

1. Identify the second intercostal space along the mid-clavicular line.
2. Prep the area with an antiseptic prep.
3. **Insert an 18 gauge**, 1¼ inch IV catheter over the TOP of the third rib. You should note the presence or absence of evacuating air through the catheter following insertion. This information must be relayed to the MCP and documented on the ePCR.
  - a) For infants < 1 year, **insert a 20 gauge** catheter.
4. The catheter should be inserted until air is released through the needle.
5. Secure the catheter in place with tape.