

## P210 LFD PROCEDURE PROTOCOL: NEEDLE THORACOSTOMY FOR TENSION PNEUMOTHORAX DECOMPRESSION

EMT-I	Paramedic
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### Indication:

- A. Needle decompression of tension pneumothorax is a standing order for EMT-I and Paramedics.
- B. **All** of the following clinical indicators must be present:
  1. Severe respiratory distress
  2. Hypotension and signs of shock
  3. Unilateral absent or decreased breath sounds
- C. Consider bilateral needle chest decompression in traumatic pulseless arrest if patient is being resuscitated and any trauma to trunk.

### Technique:

- A. Expose entire chest
- B. Clean skin overlying site with available skin prep
- C. Insert largest, longest available angiocath either at 2<sup>nd</sup> intercostal space at midclavicular line, or 5<sup>th</sup> intercostal space at midaxillary line
  1. Either approach is acceptable, generally the site with the least soft tissue overlying ribs is preferred.
  2. For adult, use commercial decompression needle. For children, a shorter angiocath is appropriate (see text box).
- D. Notify receiving hospital of needle decompression attempt

### Precautions:

- A. Angiocath may become occluded with blood or by soft tissue
- B. A simple pneumothorax is **NOT** an indication for needle decompression
- C. Extra care is needed when performing on a pediatric patient.

#### **Pediatric specific chest decompression needle size:**

- If patient fits on length-based tape (LBT) and measures Red (6 month) or higher: 14g or 16g angiocath
- Gray (preemie) or Pink (4 month) on LBT: 22g angiocath
- Newly born: 24g butterfly needle