

## Finger Thoracostomy Training (ALS Providers with MPD specialized training)

### Indications:

- Traumatic cardiac arrest
- Signs of tension pneumothorax with severe hemodynamic compromise:
  - Acute respiratory distress or failure AND/OR
  - Hypotension not responsive to fluid bolus

### Contraindications:

- None in above situation

### Equipment:

- Sterile gloves
- Eye protection/face shield
- Chlorhexidine prep
- #10 blade scalpel
- Hemostats or Kelly clamp
- Skin marking pen

Procedure: <https://www.narescue.com/simple-thoracostomy-kit-training-video.html>

ppt is on PCEMS website <https://www.piercecountywa.gov/3096/Patient-Care-Guidelines>

- Utilize universal precautions including face and eye protection.
- With arm abducted, find and mark the area at the anterior 4<sup>th</sup> or 5th intercostal space at the anterior (or between anterior & mid-axillary) (within the triangle of safety).
- Clean the area as best as possible with an antiseptic swab stick in a circular motion starting from the inside and working out.
- Make a 2-3 inch transverse incision through the skin along the 5th rib, to depth of the rib.
- Utilizing Rochester Pean (Kelly), penetrate parietal pleura.
  - Penetration is accomplished with a gently, steady push (while feeling for a sudden “give” or “pop”).
  - Depth should generally NOT exceed 3 cm past targeted rib.
  - USE CAUTION. Contents in thoracic cavity MAY BE UNDER PRESSURE. Penetration into the thoracic cavity may dramatically release this pressure. Biohazard precautions and the use of personal protective equipment are necessary.
- Bluntly dissect intercostal muscle wide enough to carefully insert finger into pleural cavity.
- Insert finger along the track into the pleural cavity and perform sweep.
  - Insure that adhesions between parietal and visceral (if present) are gently released.
  - Be careful as there may be fractured ribs with jagged edges that may puncture glove/skin of paramedic.
- Remove finger and monitor patient for improvement or complications.
- Each wound should be circled with a permanent marker and labeled EMS-R or EMS-L to identify incisions made by EMS in the event of autopsy or criminal investigation.
- Consider Vent Chest Seal if patient spontaneously breathing