## Indications

Tension Pneumothorax

## Contraindications

There are not contraindications when used in the setting of a tension pneumothorax

## Possible Complications

1. Hemorrhage from the puncture of the intercostal vessels
2. Hemorrhage from the puncture of a pulmonary vessel

## Procedure

1. Preparation:
   a. Expose and cleanse anterior chest at level of 2\textsuperscript{nd} intercostal space on affected side
   b. Find 2\textsuperscript{nd} intercostal space midclavicular line with gloved finger
   c. For adult patient, use ARS for Needle Decompression
   d. For pediatric patient, use appropriately sized needle
      i. Attach a 10mL syringe to back of needle
   e. If time allows, obtain breath sounds

2. Insert ARS or 14-gauge needle over the 3\textsuperscript{rd} rib, midclavicular, into the 2\textsuperscript{nd} intercostal space

3. Apply enough pressure to push through skin and intercostal muscle into the pleural cavity

4. You should pull back air in the syringe or hear a rush of air or blood, either of these is an indication of positive placement.

5. Remove the needle, leaving the catheter in place.

6. Secure with tape, gauze or provided device.

7. If extended transport time, connect to a one-way valve.

8. Utilize Cook Chest Drain Valve for spontaneously breathing patients. (See secondary procedure)