# Needle Thoracostomy

| Applies to: |
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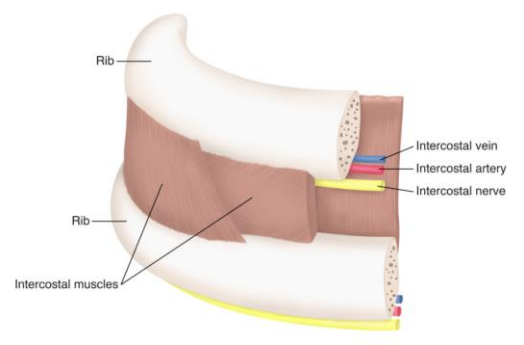
| P Paramedic |

**Clinical Indications:**

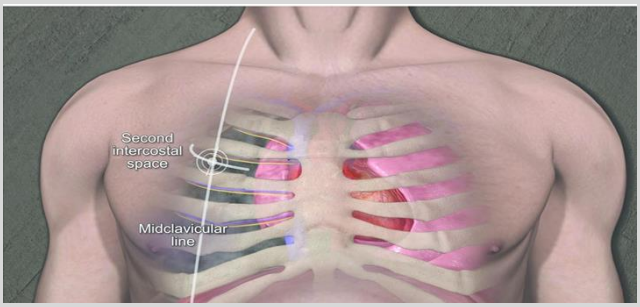
1. Patients who are peri-arrest with absent/severely diminished breath sounds and have at least two of the following signs:
   a. AMS
   b. Hypotension
   c. Increased pulse and respirations
   d. Hyperresonance to percussion on affected side
   e. Jugular vein distension
   f. Difficulty ventilating
   g. Tracheal shift




2. In patients with penetrating trauma to the chest or upper back, or gunshot wound to the neck or torso who are in respiratory distress, a weak or absent radial pulse may indicate hypotension; signs of tension pneumothorax listed above may also be present.
3. Patients in traumatic arrest with chest or abdominal trauma for whom resuscitation is indicated. These patients may require bilateral chest decompression even in the absence of the signs above.

Note: Assessment must be confirmed by second paramedic.

**Procedure:**




1. Administer high flow oxygen.
2. Identify and prep the site:
   a. Locate the second intercostal space in the mid-clavicular line on the same side of the pneumothorax.
   b. Prepare the site with alcohol and allow to air dry.
3. For adults and children who are too large to fit on a pediatric measurement tape, insert a 10g spear into the skin over the third rib and direct it just over the top of the rib (superior border) into the interspace. For *infants (< 1 year of age), use a 20g catheter. For children > 1 year who measure on a length-based tape, use a 16g catheter.*
4. Advance the catheter through the parietal pleura until a “pop” is felt and air or blood exits under pressure through the catheter, then advance catheter only to chest wall.
5. Remove the needle, leaving the plastic catheter in place and secure the catheter hub to the chest wall with a flutter valve.