

HEALTHEAST MEDICAL TRANSPORTATION
MEDICAL OPERATIONS MANUAL

7P CHEST DECOMPRESSION

PATIENT CARE GOALS

- Relieve tension pneumothorax^{1, 2, 3}

PARAMEDIC

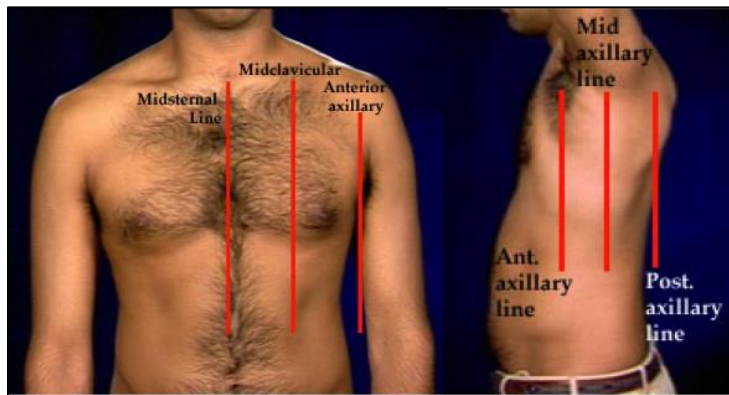
1. Gather equipment required for the procedure including:

- ARS Needle Decompression Kit
- Antiseptic wipes



2. Observe body substance isolation precautions (gloves and eye protection).
3. If possible roll the patient to the lateral recumbent position with the affected side up. Alternatively, lay the patient supine with the head of the bed elevated 30 degrees.

4. Locate the landmark for decompression on the affected side – 4th or 5th intercostal space at the anterior axillary line (see figure, right).



5. Cleanse the area with antiseptic wipes.
6. Insert the needle into the skin at a 90-degree angle to the chest over the superior border of the rib.

7. Upon entering the chest cavity there may be a “pop” and then a hissing sound as air is decompressed from the chest.
8. Advance the catheter over the needle and into the chest cavity, removing the needle completely.
9. Secure the catheter to the chest wall.
10. If the tension pneumothorax recurs repeat the procedure with a new decompression needle.

DOCUMENTATION KEY POINTS

- Indication for procedure
- Signs and symptoms suggesting the presence of a tension pneumothorax
- Location of needle insertion and response to decompression

HEALTHEAST MEDICAL TRANSPORTATION MEDICAL OPERATIONS MANUAL

NOTES

¹ Needle chest decompression is indicated in patients with clinical signs and symptoms consistent with tension pneumothorax such as:

- Increased airway resistance during assisted ventilation
- Respiratory distress – severe dyspnea and tachypnea associated with
 - Unilateral absence of breath sounds
 - Hyperresonance to percussion on affected side
 - Hypotension
 - Tachycardia
 - Cyanosis
- Respiratory arrest (late sign)
- Traumatic arrest from blunt force or penetrating trauma to the chest
- Tracheal deviation toward unaffected side (late sign)
- Jugular vein distention (late sign)

² The most common causes of tension pneumothorax are chest trauma and positive pressure ventilation.

³ Needle chest decompression is not indicated for relief of simple pneumothorax that is not hemodynamically compromising.