

NEEDLE DECOMPRESSION OF THE CHEST (NDC)

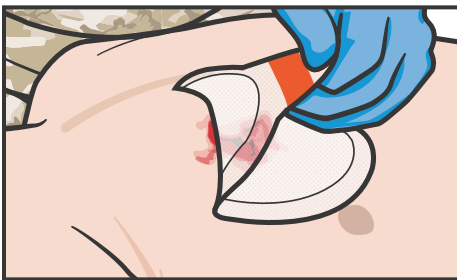


CONSIDER body substance isolation.

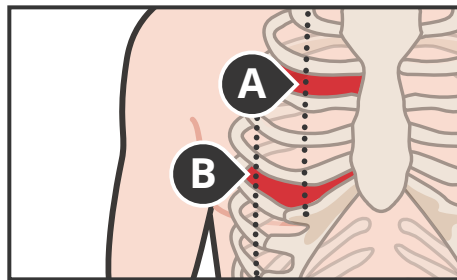
NOTE: If a Combat Lifesaver is available, direct them to assist.

01 ASSESS the casualty for signs of suspected tension pneumothorax.

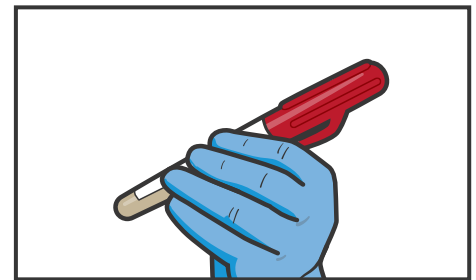
NOTE: Signs of a tension pneumothorax include significant torso trauma or primary blast injury followed by severe/progressive respiratory distress (respiratory rate of less than 8 or greater than 20 breaths per minute, or an oxygen saturation <90%).



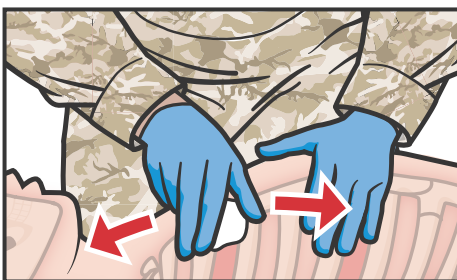
02 If a vented chest seal was previously applied, **BURP** it, or **REPLACE** the chest seal, if improperly applied and reassess the casualty.



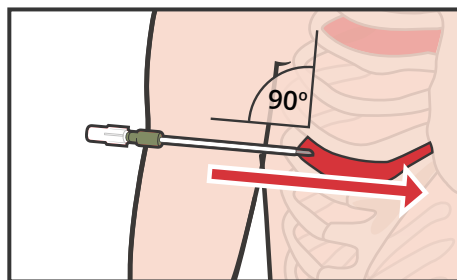
03 IDENTIFY site placement for needle insertion on the side of the injury (whichever one is more accessible):
 (a) Second intercostal space (ICS) at the midclavicular line on the side of the injury
NOTE: Do not insert the needle medial to the nipple line.
 (b) Fifth ICS in the anterior axillary line on the side of the injury



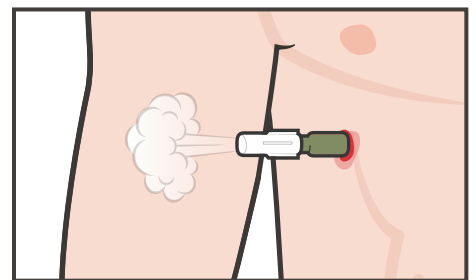
04 SECURE a 14-gauge or a 10-gauge, 3.25 in needle/catheter unit.
NOTE: Remove Luer lock cap from needle/catheter (if applicable).



05 If available, use an antiseptic solution or a pad to **CLEAN** the site.



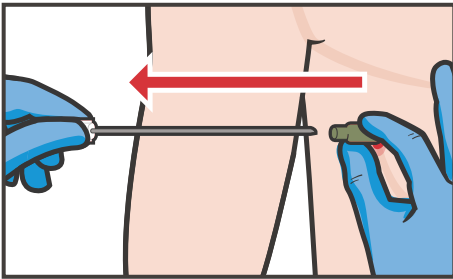
06 INSERT the needle/catheter just over the top of the lower rib at the insertion site, at a 90-degree angle (perpendicular) to the chest wall, advancing it to the hub.



07a LEAVE the needle/catheter unit in place for 5–10 seconds to allow decompression to occur.

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07b REMOVE the needle, leaving the catheter in place.



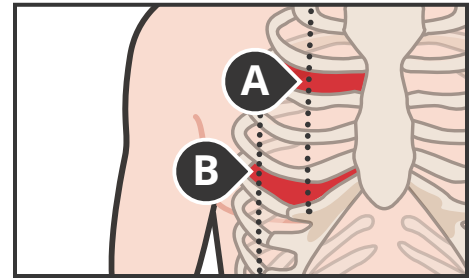
08 ASSESS for successful needle decompression:

- (a) Respiratory distress improves.
- (b) There is an obvious hissing sound as air escapes from the chest when NDC is performed.

NOTE: This may be difficult to appreciate in high-noise environments.

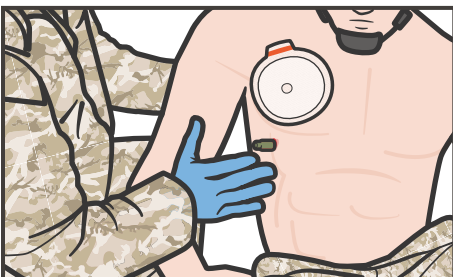
- (c) Hemoglobin oxygen saturation increases to 90% or greater (respiratory distress should improve).

NOTE: This may take several minutes and may not happen at altitude.



09 If the first NDC fails to improve the casualty's signs/symptoms, then **PERFORM** a second NDC on the same side of the chest at whichever of the two recommended sites was not previously used.

NOTE: Use a new needle/catheter unit for the second decompression attempt.

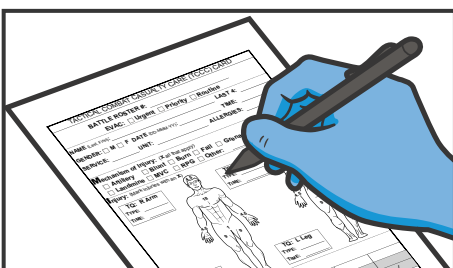


10 PLACE the casualty in the sitting position or recovery position (with their injured side down).

11 Continue reassessing the casualty for the reoccurrence of progressive respiratory distress.

12 If the initial NDC was successful, but symptoms later recur, then **PERFORM** another NDC at the same site that was used previously. Use a new needle/catheter unit for the repeat NDC.

13 If the second NDC is also not successful, then continue onto the Circulation section of the MARCH (Massive bleeding, Airway, Respiration, Circulation, Hypothermia/Head) sequence.



14 **DOCUMENT** all findings and treatments on a DD Form 1380 TCCC Casualty Card and attach it to the casualty.