

# NEEDLE DECOMPRESSION OF THE CHEST (NDC)

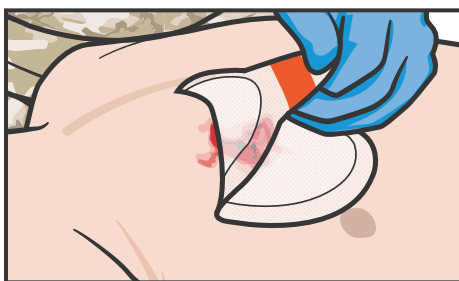


**CONSIDER** body substance isolation.

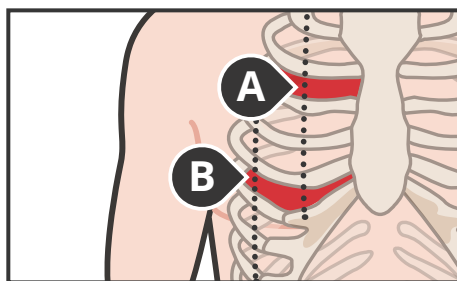
**NOTE:** If a Combat Lifesaver is available, direct them to assist.

**01 ASSESS** the casualty for signs of suspected tension pneumothorax.

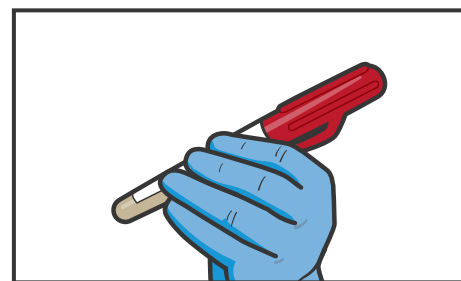
**NOTE:** Signs of a tension pneumothorax include significant torso trauma or primary blast injury followed by severe/progressive respiratory distress (respiratory rate of less than 8 or greater than 20 breaths per minute, or an oxygen saturation <90%).



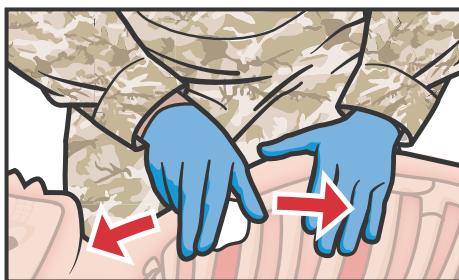
**02** If a vented chest seal was previously applied, **BURP** it, or **REPLACE** the chest seal, if improperly applied and reassess the casualty.



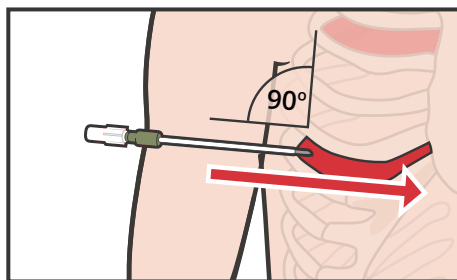
**03 IDENTIFY** site placement for needle insertion on the side of the injury (whichever one is more accessible):  
(a) Second intercostal space (ICS) at the midclavicular line on the side of the injury  
**NOTE:** Do not insert the needle medial to the nipple line.  
(b) Fifth ICS in the anterior axillary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



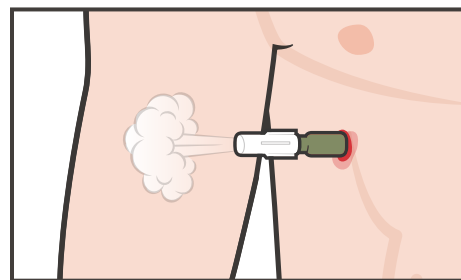
**04 SECURE** a 14-gauge or a 10-gauge, 3.25 in needle/catheter unit.  
**NOTE:** Remove Luer lock cap from needle/catheter (if applicable).



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



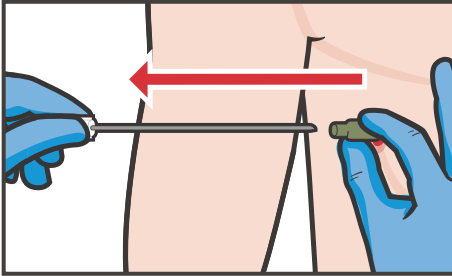
**06 INSERT** the needle/catheter just over the top of the lower rib at the insertion site, at a 90-degree angle (perpendicular) to the chest wall, advancing it to the hub.



**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.



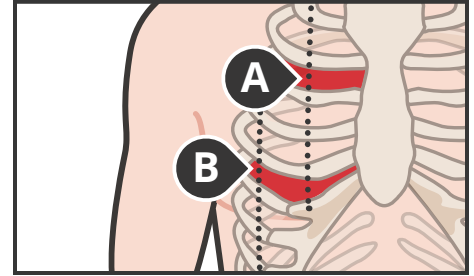
**08** **ASSESS** for successful needle decompression:

- (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.

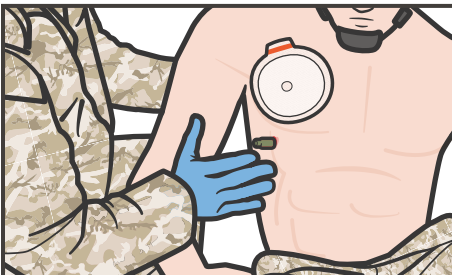
- (c) Hemoglobin oxygen saturation increases to 90% or greater (respiratory distress should improve).

**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.

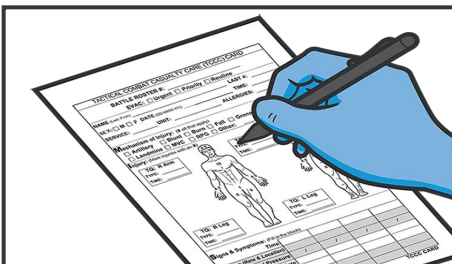


**10** **PLACE** the casualty in the sitting position or recovery position (with their injured side down).

**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.