



<h1>NYC REMAC</h1>			
Advisory No.	2019-09		
Title:	<b>Revised – Appendix O: Needle Decompression of Tension Pneumothorax</b>		
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Supersedes:		Page:	1 of 4

The Regional Emergency Medical Advisory Committee (REMAC) of New York City is responsible to develop, approve and implement prehospital treatment and transport protocols for use within the five boroughs of the City of New York. The Regional Emergency Medical Advisory Committee (REMAC) of New York City operates under the auspices of Article 30 of the New York State Public Health Law.

**Appendix O: Needle Decompression of Tension Pneumothorax has been revised.**

**Attached:**

- **Appendix O – showing all revisions**
- **Appendix O – final version**

Current and Updated Protocols can be accessed at the Regional EMS Council website: [www.nycremsco.org](http://www.nycremsco.org).

Owners/operators of Ambulance and ALS First Response Services providing prehospital medical treatment within the five boroughs of the City of New York are responsible to provide copies of the NYC REMAC Prehospital Treatment Protocols to their personnel, and to ensure that Service Medical Directors and EMS personnel are informed of all changes/updates to the NYC REMAC Prehospital Treatment Protocols.

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# THE REGIONAL EMERGENCY MEDICAL SERVICES COUNCIL OF NEW YORK CITY, INC.

## Appendix O: Needle Decompression of Tension Pneumothorax (revised)

### Showing Revisions

Deleted language is BOLD RED AND STRUCK-OUT --- ~~DELETED~~

New language is BOLD BLUE AND UNDERLINED --- NEW

#### APPENDIX O

#### ~~LANDMARKS AND PROCEDURE FOR~~ NEEDLE DECOMPRESSION OF ~~A~~ TENSION PNEUMOTHORAX

~~1. Confirm the need for Needle Decompression:~~

~~a) Respiratory distress~~

~~i) dyspnea~~

~~ii) tachypnea~~

~~iii) cyanosis, and/or~~

~~iv) chest pain~~

1. Identify signs of a tension pneumothorax:

a) **Absent** or **decreased breath sounds** on the affected side

AND

b) One or more of the following:

i) Severe dyspnea/tachypnea

ii) cyanosis/hypoxia

iii) hypotension

~~2. Administer high concentration oxygen.~~

2. Identify the site for needle decompression ~~second intercostal space on the mid-clavicular line~~ on the same side as the Pneumothorax.

a) The second intercostal space on the mid-clavicular line.

or

b) The fifth intercostal space on the anterior axillary line.

3. Cleanse the overlying skin with ~~Povidone-Iodine~~ antiseptic solution.

4. For adults, use a 14-gauge, 3.25 inch (8.25cm) over-the-needle catheter. For children, use a 18-20-gauge, 0.8-1.6 inch (2 - 4 cm) over-the-needle catheter. Insert catheter through the skin, perpendicular to the chest wall, above the rib and direct it just over the rib. Hold in place for 5-10 seconds to allow for air decompression.

5. Remove the needle, advance the catheter to the hub, and secure in place for patient transportation.

6. If first attempt is not successful in decompressing the tension pneumothorax, a second attempt should be made at the other site on the same side.

7. If first attempt is successful, but the tension pneumothorax recurs, perform a second decompression, using a new catheter.

8. If second attempt of needle decompression does not resolve signs of the tension pneumothorax, begin rapid transport and consider other etiologies for clinical findings.

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## *Appendix O: Needle Decompression of Tension Pneumothorax (revised)*

- ~~9. Insert a #14 gauge, 3–6 cm long (adult) or a #18–20 gauge, 2–4 cm long (child or infant) over the needle catheter into the skin above the third rib and direct it just over the rib into the interspace.~~
- ~~10. Insert the catheter through the parietal pleura until air exits under pressure.~~
- ~~11. Remove the needle and leave the plastic cannula in place until it is replaced in the Emergency Department.~~
12. ~~Attach a flutter valve to the end of the plastic cannula and secure the cannula for transportation.~~

Final/Clean

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## APPENDIX O

### NEEDLE DECOMPRESSION OF TENSION PNEUMOTHORAX

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1. Identify signs of a tension pneumothorax:
  - a) Absent or decreased breath sounds on the affected side

AND

  - b) One or more of the following:
    - i) Severe dyspnea/tachypnea
    - ii) cyanosis/hypoxia
    - iii) hypotension
2. Identify the site for needle decompression on the same side as the Pneumothorax.
  - a) The second intercostal space on the mid-clavicular line.

or

  - b) The fifth intercostal space on the anterior axillary line.
3. Cleanse the overlying skin with antiseptic solution.
4. For adults, use a 14-gauge, 3.25 inch (8.25cm) over-the-needle catheter. For children, use a 18-20-gauge, 0.8-1.6 inch (2 - 4 cm) over-the-needle catheter. Insert catheter through the skin, perpendicular to the chest wall, above the rib and direct it just over the rib. Hold in place for 5-10 seconds to allow for air decompression.
5. Remove the needle, advance the catheter to the hub, and secure in place for patient transportation.
6. If first attempt is not successful in decompressing the tension pneumothorax, a second attempt should be made at the other site on the same side.
7. If first attempt is successful, but the tension pneumothorax recurs, perform a second decompression, using a new catheter.
8. If second attempt of needle decompression does not resolve signs of the tension pneumothorax, begin rapid transport and consider other etiologies for clinical findings.