



## Section 14: Appendix 2: Medical Procedures

### SECTION 14: NEEDLE CRICOTHYROTOMY

P PARAMEDIC P

INDICATIONS	SIGNS AND SYMPTOMS	COMPLICATIONS
<ul style="list-style-type: none"><li>• Management of an obstructed airway when standard airway procedures cannot be accomplished or have failed.</li><li>• Unable to intubate by another route.</li><li>• Cervical spine injuries</li><li>• Maxillo facial trauma</li><li>• Laryngeal trauma / edema</li></ul>	<p>Airway obstruction from:</p> <ul style="list-style-type: none"><li>• Edema from infection, caustic ingestion, allergic reaction, and / or inhalation injuries</li><li>• Foreign body</li><li>• Mass lesion</li></ul>	<ul style="list-style-type: none"><li>• Post procedure bleeding</li><li>• Cellulitis of neck</li><li>• Subcutaneous emphysema</li><li>• Voice change</li><li>• Feeling of lump in throat</li><li>• Persistent stoma</li><li>• Obstructive problems</li><li>• Misplacement of the airway</li></ul>

**This procedure buys TIME only. It is not a definitive airway. It will provide OXYGENATION only, not appropriate**

#### PROCEDURE

1. If time permits, prep with appropriate antiseptic solution.
2. Have suction supplies available and ready.
3. Locate the cricothyroid membrane utilizing anatomical landmarks (in the midline between thyroid cartilage and cricoid cartilage).
4. Secure larynx laterally between thumb and forefinger.
5. Relocates the cricothyroid membrane.
6. Using the a syringe attached to a short 10 to 14 gauge catheter-over-needle device if needed, insert the needle through the cricothyroid membrane at a 45 to 60 degree angle towards feet.
7. Confirm entry of needle in trachea by aspirating air through the syringe.
8. If air is present, change the angle of insertion to 60 degrees.
9. Advance the catheter to the level of the hub.
10. Carefully remove the needle and syringe.
11. Secure the cannula to patient.
12. Attach the cannula to a 15 mm adapter. (2.5 – 3.0 pediatric ET tube adapter)
13. Attach a BVM to the airway adapter and begin oxygenation.
14. Make certain ample time is used not only for inspiration but expiration as well.
15. If unable to obtain an adequate airway, resume basic airway management and transport the patient as soon as possible.
16. **Regardless of success or failure of needle cricothyrotomy, notify the receiving hospital at the earliest possible time of a surgical airway emergency.**
17. Document procedure on the patient care record (PCR).

#### KEY POINTS

- Use needle cricothyrotomy as a bridge to more invasive surgical airways. (Tracheotomy, surgical cricothyrotomy)
- If placement is required due to foreign body obstruction, removal attempts should continue after performing needle cric procedure.
- Use procedure early to prevent ongoing hypoxia if foreign body is not easily removed.
- QuickTrach device provides a better airway and ventilation if device is available and provider has undergone specific training for that device. See Cricothyrotomy / QuickTrach Procedure.