

## NEEDLE CRICOTHYROTOMY

**INDICATIONS:** Life-threatening upper airway obstructions where other non-invasive or invasive measures have failed to establish an airway and ventilation in an unresponsive patient. **For patients > 2 years of age.**

### PROCEDURE:

1. Place patient in the supine position, taking spinal precautions.
2. Identify the cricothyroid membrane in the mid line between the thyroid and cricoid cartilages.
3. Prepare area with Betadine swab.
4. Assemble a #12 or #14 gauge, 5 cm, over-the-needle catheter to a 6-12 ml syringe or other permitted FDA approved airway devices.
5. Puncture the skin midline and directly over the cricothyroid membrane (i.e. midsagittal).
6. Direct the needle at a 45 degree angle caudally (60 degree for the Quick Trach).
7. Carefully insert the needle through the lower half of the cricothyroid membrane, aspirating as the needle is advanced.
8. Aspiration of air signifies entry into the tracheal lumen.
9. Withdraw stylet while gently advancing catheter downward into position, being careful not to perforate the posterior wall of the trachea.
10. Attach the catheter hub to an appropriate ventilating device connected with tubing to an oxygen source. The O<sub>2</sub> flow-meter should be set at 15 LPM (50 PSI). *NOTE: Adequate SpO<sub>2</sub> can be maintained for 30-45 minutes.*
11. Intermittent ventilation can be achieved by placing the thumb over the side port of the tubing, using the 1 second on and 4 seconds off rhythm.

12. Observe lung inflations and auscultate the chest for adequate ventilation.
13. Secure the apparatus to the patient's neck.

**COMPLICATIONS:**

- ✓ Asphyxia
- ✓ Aspiration
- ✓ Cellulitis
- ✓ Esophageal perforation
- ✓ Hematoma
- ✓ Posterior tracheal wall perforation
- ✓ Subcutaneous and/or mediastinal emphysema
- ✓ Thyroid perforation
- ✓ Inadequate ventilations leading to hypoxia & death