

Southern Illinois Regional EMS System

II-21 NEEDLE CRICOTHYROTOMY

Indications:

- Short term (30-45 minutes) airway management for unconscious or nearly unconscious patients secondary to:
 - Foreign body, tumor or infectious process that mechanically obstructs the upper airway.
 - Laryngospasm and/or laryngeal stenosis preventing successful ET tube passage.

Complications:

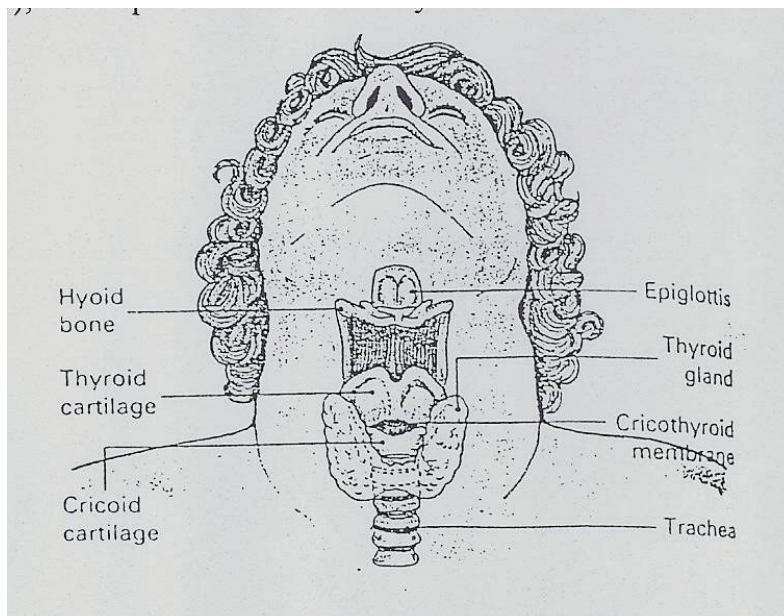
- Pneumothorax
- Hemorrhage
- Perforation of the thyroid and/or esophagus
- Subcutaneous or mediastinal emphysema
- Does not allow direct suctioning of secretions
- Does not protect the airway or allow for efficient elimination of carbon dioxide

Equipment:

- PPE
- Oxygen source
- Suction equipment
- Antiseptic solution for cleaning
- BVM
- 14 gauge over-the-needle catheter with 10ml syringe attached
- Adhesive tape or securing device

Procedure:

- Contact Medical Control to obtain orders
- Stabilize the larynx and locate the site:
 - The small "V shaped" depression below the thyroid cartilage (Adam's Apple), corresponds to the cricothyroid membrane where the procedure is performed.



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Anatomical landmarks associated with the cricothyroid membrane.

II-21 NEEDLE CRICOTHYROTOMY (continued)

- Cleanse the area with approved antiseptic
- Puncture the cricothyroid membrane with the catheter-needle in the midline and with the 10ml syringe firmly attached.
- Advance the catheter-needle syringe downward (feet ward) at a 45 degree angle
- Apply negative pressure to the syringe plunger as you insert
 - Entrance of air into the syringe indicates that the needle is in the trachea and advancement should stop
- Advance the catheter over the needle completely and remove the needle and syringe
- Attach BVM by utilizing a 3 mm ET tube adapter
- Secure catheter in place or hold constantly during transport.
- Observe the chest rise and fall, O2 sat, end tidal CO2, etc.

Documentation:

- Fully document the procedure, including the time performed and any complications

