

Fastest Airway: Needle Cricothyroidotomy

Equipment:

- Betadine or other prep
- Surgical towels
- Syringe
- 12 or 14 gauge needle with catheter (i.e. large IV catheter)
- Oxygen tubing

Procedure:

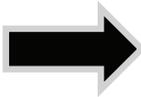
1. Apply prep to neck if time allows.
2. Identify anatomy:
 - Identify thyroid cartilage and thyroid horn.
 - May need to extend neck: **(Airway comes before Disability!)**
 - Just below thyroid horn feel for a groove. This should be the cricothyroid membrane.
3. Stabilize trachea at the thyroid horn with the middle or index finger of your hand closest to the patient's mandible.



4. Use your index finger to try to feel and mark where the groove is (cricothyroid membrane).
 - If you can't feel anatomy due to thick neck - **GO TO SURGICAL AIRWAY IMMEDIATELY!**
5. Puncture skin over the cricothyroid membrane (midline) with the IV catheter (14 gauge is preferred) using your free hand.



6. Direct needle into groove and aspirate for air as needle is advanced.



- **Stop when gush of air is obtained.**
- **Stop if catheter meets significant resistance.**
- **Stop if catheter doesn't obtain air by the time it is advanced $\frac{3}{4}$ of its length into neck.**

7. When air is obtained, advance the catheter to the hub and remove the syringe and needle while holding the catheter in place.



8. Attach oxygen tubing to the catheter with high flow oxygen.



9. Secure in place with tape or suture - will have to improvise!



10. Oxygen saturations should improve rapidly.

- **Check on TRANSFER ARRANGEMENTS!**
- If help to obtain definitive airway is >30 minutes away, **PREPARE AND PROCEED WITH SURGICAL CRICOTHYROIDOTOMY!!!**

Surgical Cricothyroidotomy

Equipment:

- Hemostat
- Scalpel
- ETT or tracheostomy Tube (cuffed #5 or #6)
- Suction

Procedure:

1. Stand on patient's right side (assistant on left).
2. Stabilize thyroid cartilage and catheter airway with left hand.



3. Make a transverse or vertical skin incision just below thyroid horn (or around catheter airway).
 - **In theory less bleeding potential with a vertical incision.**



4. Continue incising tissue with scalpel until you reach the upper airway. **(EXPECT BLEEDING!)**



5. Incise the cricothyroid membrane around the catheter.
6. Remove the catheter and place the hemostat into the airway and spread.
7. Insert #5 or #6 ETT or tracheostomy tube and direct posterior.



8. Inflate cuff and observe and listen to chest.
9. Secure tube.



Go To Breathing