

	<b>COUNTY OF SACRAMENTO</b> EMERGENCY MEDICAL SERVICES AGENCY	Document #	8825.08
	<b>PROGRAM DOCUMENT:</b>  <b>Esophageal Tracheal Intubation (COMBITUBE®)</b>	Draft Date:	05/31/01
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EMS Medical Director

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EMS Administrator

**Purpose:**

- A. Esophageal tracheal intubation skills guideline when using a COMBITUBE®.

**Authority:**

- A. California Health and Safety Code, Division 2.5
- B. California Code of Regulations, Title 22, Division 9

**Indications:**

- A. Respiratory failure in an unconscious patient.
- B. As per Respiratory Distress algorithm.

**Contraindications:**

- A. Persons <16 years old and/or <5 feet tall.
- B. Responsive patients with intact gag reflex.
- C. Difficulty in advancing the Combitube® due to resistance upon insertion attempt.
- D. Patients with known esophageal disease.
- E. Ingestion of caustic substance.
- F. Presence of tracheostomy or stoma.
- G. Burns involving the airway.

**Relative Contraindications:**

- A. Anatomical disruption of the oropharynx.
- B. Foreign body airway obstruction.

**Equipment:**

- A. Esophageal Tracheal Airway (Combitube®).
- B. 140cc syringe.
- C. 20cc syringe.
- D. Right angle connector.
- E. Suction catheter.
- F. Suction apparatus.
- G. Approved confirmation device.
- H. Bag Valve Mask (BVM) device with oxygen source.
- I. Gloves.
- J. Eye protection.

**Procedure:**

- A. Inflate each cuff to test for air leaks.
- B. Deflate both cuffs.
- C. Lubricate Combitube airway with water-soluble lubricant.
- D. Place right angle deflector on (Clear) #2 port
- E. Hyperventilate patient.
- F. Place patient's head in neutral position.
- G. Insert Combitube® in the midline of the patient using a downward curved movement. Advance until front teeth or alveolar ridges are between the black rings on the Combitube®. Do not force the tube. A laryngoscope may be used to lift the tongue and jaw if desired.
- H. Inflate pharyngeal cuff (Blue pilot balloon #1) with 100cc of air. The Combitube® may move slightly as it seats in the pharynx – this is normal. Additional air may be inserted if needed to seal the airway during ventilation.
- I. Inflate distal cuff (White pilot balloon #2) with 15cc of air.
- J. Begin ventilations with a BVM device using the (Blue) #1 port. Auscultate the patient's breath sounds. If auscultation reveals presence of breath sounds and absence of gastric sounds, continue ventilations via the (Blue) #1 port. Emesis may issue from the (Clear) #2 port. Reassess airway seals.
- K. If auscultation reveals absence of breath sounds and presence of gastric sounds immediately remove the right angle deflector and begin ventilations via the (Clear) #2 port. Reassess breath sounds and airway seals.
- L. Confirm Combitube® placement using an approved confirmatory device such as a Toomey syringe or end-tidal CO<sub>2</sub> detector. Response to confirmation may be slower than endotracheal intubation.
- M. Secure the Combitube® tube and ventilate with a BVM device with 100% oxygen.
- N. Reevaluate the position of the Combitube® at least after each movement of the patient.
- O. No medication is administered through the Combitube®.

**Potential Complications:**

- A. Subcutaneous emphysema.
- B. Perforated trachea or esophagus.
- C. Retropharyngeal perforation.

**Precautions and Special Considerations:**

- A. Emergency Removal:  
Generally Paramedics will NOT remove the Combitube® in the field. In situations where patient combativeness makes continued intubation with a Combitube dangerous, the tube may be removed.
  1. Have suction and BVM for assisted ventilations ready.
  2. Position patient to minimize risk of aspiration.
  3. Deflate pharyngeal cuff (Blue pilot balloon #1).
  4. Deflate distal cuff (White pilot balloon #2).
  5. Remove Combitube®.
  6. Suction patient and assist ventilations as needed.
- B. The Paramedic is responsible for all airway management and must frequently reassess Combitube® placement. Bilateral breath sounds are to be checked after each move of the patient, e.g. placing patient on gurney, moving patient to ambulance, loading patient into ambulance and unloading patient at the hospital.