	City of Winchester **Fire & Rescue Department** **STANDARD OPERATING PROCEDURE**	

Section:	EMS Operations	**SOP:**	9.1
Subject:	King Laryngotracheal Airway	**Executed:**	12/12/2008
		Revised:	8/17/2011
Approved: Eddie McClellan, EMS Captain		**Approved:** Christopher Turnbull, MD, OMD	

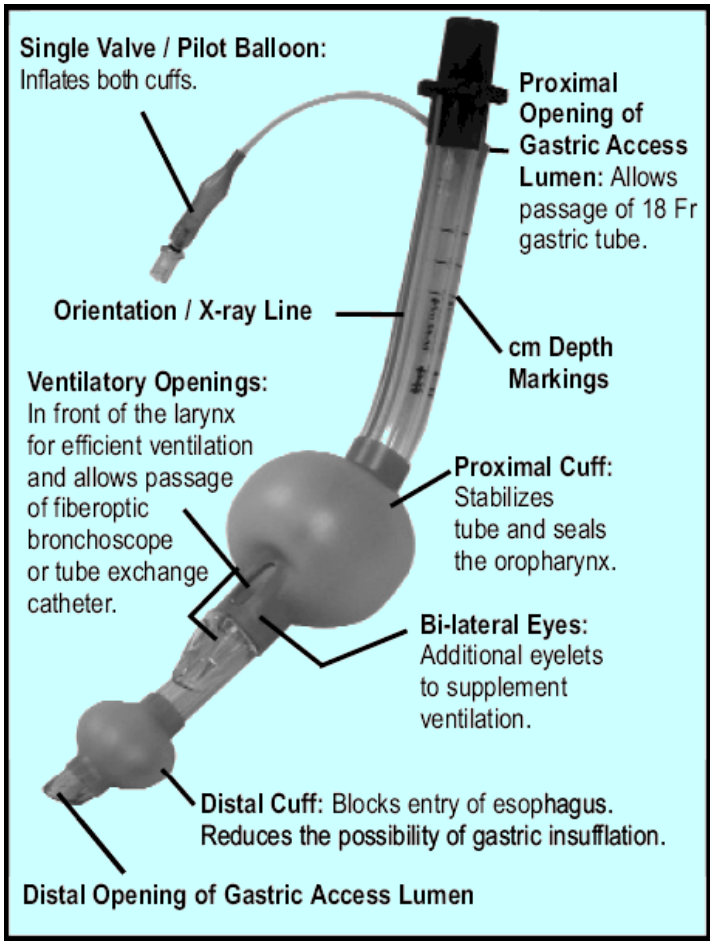
KING® LARYNGOTRACHEAL AIRWAY GUIDELINE

INDICATIONS

The KING LT-D is designed for use in difficult and emergent airway cases in the apneic or unresponsive patient without a gag reflex.

CONTRAINDICATIONS

1. Responsive patients with an intact gag reflex.
2. Patients with known esophageal disease.
3. Patients who have ingested caustic substances.
4. Dextrose, naloxone or glucagons to be administered to the patient (precaution only).



WARNINGS

1. The KING LT-D airway does not protect the airway from the effects of regurgitation and aspiration.
2. High airway pressure may divert gas either to the stomach or to the atmosphere.
3. Intubation of the trachea cannot be ruled out as a potential
4. complication of the insertion of the KING LT-D airway.
5. After placement, perform standard

checks for breath sounds and utilize an appropriate carbon dioxide monitor (Colormetric or Capnography).

6. Lubricate only the posterior surface of the KING LT-D airway to avoid blockage of the ventilation apertures or aspiration of the lubricant.
7. The KING LT-D airway is not intended for reuse

INSERTION PROCEDURE KING LT-D

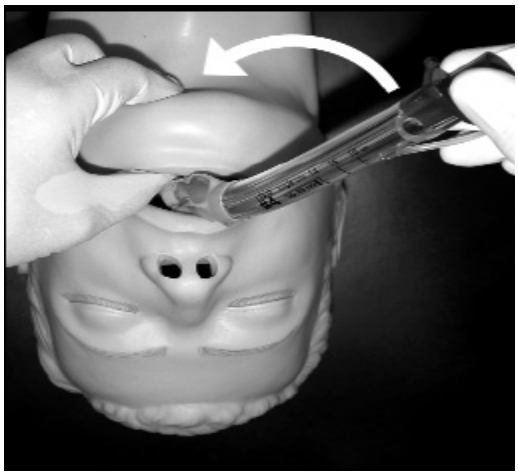
1. Using the information provided, choose the correct KING LT-D airway size based on patient height.

Size	Description	Connector Color	Outside Diameter	Inside Diameter	Inflation Volume
2	35-45 inches in height	Green	11mm	7.5mm	25-35mL
2.5	41-51 inches in height	Orange	11mm	7.5mm	30-40mL
3	4-5 feet in height	Yellow	14mm	10mm	45-60mL
4	5-6 feet in height	Red	14mm	10mm	60-80mL
5	Greater than 6 feet	Purple	14mm	10mm	70-90mL

2. Test cuff inflation system by injecting the maximum recommended volume of air into the cuffs as indicated in above chart. Remove all air from both cuffs prior to insertion.
3. Apply a water-based lubricant to the beveled distal tip and posterior aspect of the tube, taking care to avoid introduction of lubricant in or near the ventilatory openings.
4. Pre-Oxygenate
5. Position the head. The ideal position for insertion of the KING LT-D is the "sniffing position." However, the angle and shortness of the tube also allows it to be inserted with the head in the neutral position.

6. Hold the KING LT-D airway at the connector with dominant hand. With non-dominant hand, hold mouth open and apply chin lift.
7. With the KING LT-D airway rotated laterally 45-90° such that the blue orientation line is touching the corner of the mouth, introduce tip into the mouth and advance behind base of tongue. Never force the tube into position.

8. As tube passes under tongue, rotate tube back to midline (blue orientation line faces chin).



9. Without exerting excessive force, advance KING LT-D airway until the base of the connector is aligned with teeth or gums.

10. Inflate cuffs with the minimum volume necessary to seal the airway at the peak ventilatory pressure employed (just seal volume). Typical inflation volumes are as follows:

Size 2 – 25-35mL	Size 2.5 – 30-40mL	Size 3 – 45-60mL
Size 4 – 60-80mL	Size 5 – 70-90mL	

11. Attach the bag-valve mask to the 15mm connector of the KING LT-D airway. While gently bagging the patient to assess ventilation, simultaneously withdraw the airway until ventilation is easy and free flowing (large tidal volume with minimal airway pressure).
12. Depth markings are provided at the proximal end of the KING LT-D airway which refers to the distance from the distal ventilatory openings. When properly placed with the distal tip and cuff in the upper esophagus and the ventilatory openings aligned with the opening to the larynx, the depth markings give an indication of the distance, in cm from the vocal cords to the upper teeth.
13. Deliver several breaths with the bag-valve mask and confirm proper tube placement as follows:
    a. Auscultate over the epigastrium.
    b. Auscultate the chest bilaterally at the apices and the bases for the presence of equal, bilateral lung sounds.
    c. Observe for symmetrical chest rise and fall with each breath.

d. Look for moisture condensation in the tube with an exhaled breath.
e. Observe patient for clinical improvement (i.e. pulse oximetry, skin condition).

14. Confirm proper tube placement with a CO_2 detection device:
    a. End-Tidal CO_2 Detection/Monitoring, Capnography
    b. End-Tidal CO_2 Detection, Colormetric
15. Ventilate the patient with the bag-valve-mask supplied with 100% oxygen as indicated.
16. Secure the KING LT-D airway in place with a commercial device while continuing ventilatory support.
17. Re-confirm airway placement after the device is secured, after every patient movement and at regular intervals. Application of a cervical collar and immobilization device will help prevent the patient from moving in such a way as to dislodge the KING LT-D airway.

REMOVAL PROCEDURE

1. Once it is in the correct position, the KING LT-D airway is well tolerated until the return of protective reflexes.
2. Ensure suctioning equipment is ready.
3. Deflate both cuffs completely. Turn the patient onto side.
4. Remove the King LT-D airway carefully, suctioning as needed.
5. Insert an oropharyngeal or nasopharyngeal airway as needed.
6. Continue ventilation with a BVM and oxygen at 10-15 LPM as needed.

REPLACEMENT PROCEDURE

1. Replace at Winchester Medical Center through Pixis System like other items replaceable through Winchester Medical Center.
2. If Winchester Medical Center does not have the correct size, notify the EMS Captain of such.