



KING AIRWAY



Escambia County, Florida - ALS/BLS Medical Protocol

The KING LTS-D is a sterile single use device intended for airway management and is approved for use by paramedics and EMT's. (Passing of the NG tube thru the King LTS-D is a paramedic skill only).

It consists of a curved tube with ventilation apertures located between two inflatable cuffs. Both cuffs are inflated using a single valve / pilot balloon. The distal cuff is designed to seal the esophagus, while the proximal cuff is intended to seal the oropharynx. Attached to the proximal end of the tube is a 15 mm connector for attachment to a standard breathing circuit or resuscitation bag.

Training Requirements:

The King LTS-D requires specific training prior to use.

INDICATIONS

The KING LTS-D is intended for airway management in patients over 4 ft in height (122 cm) for controlled or spontaneous ventilation.

CONTRAINDICATIONS

The following contraindications are applicable for routine use of the KING LTS-D:

1. Responsive patients with an intact gag reflex.
2. Patients with known esophageal disease.
3. Patients who have ingested caustic substances.



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WARNINGS

The user should be familiar with the following warnings when considering or attempting to use the KING LTS-D:

1. The KING LTS-D does not protect the airway from the effects of regurgitation and aspiration.
2. High airway pressures may divert gas either to the stomach or to the atmosphere.
3. Intubation of the trachea cannot be ruled out as a potential complication of the insertion of the KING LTS-D. After placement, perform standard checks for breath sounds, stomach sounds, utilize an appropriate carbon dioxide monitor, and pulse ox.
4. Lubricate only the posterior surface of the KING LTS-D to avoid blockage of the aperture or aspiration of the lubricant.
- 5. DO NOT ADMINISTER DRUGS VIA THE KING LTS-D.**

KING LTS-D INSERTION INSTRUCTIONS

1. The KING LTS-D #4 is appropriate for 5-6 ft. patients. The #5 is for patient over 6 feet tall.
2. Test cuff and inflation system for leaks by injecting the maximum recommended volume of air into the cuffs (size 4 – 60-80 ml). Remove all air from both cuffs prior to insertion.
3. Apply 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. Have a spare KING LTS-D ready and prepared for immediate use.



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5. Pre-oxygenate, if possible.
6. Position the head. The ideal head position for insertion of the KING LTS-D is the “sniffing position”. However, the angle and shortness of the tube also allows it to be inserted with the head in a neutral position.
7. Hold the KING LTS-D at the connector with dominant hand. With non-dominant hand, hold mouth open and apply chin lift.
8. With the KING LTS-D rotated laterally 45-90 such that the blue orientation line is touching the corner of the mouth, introduce tip into mouth and advance behind base of tongue.
9. As tube tip passes under tongue, rotate tube back to midline (blue orientation line faces chin).
10. Without exerting excessive force, advance tube until base of connector is aligned with teeth or gums.
11. Using the syringe provided, inflate the cuffs of the KING LTS-D with the appropriate volume: Size 4 = 60-80 ml. cuff volume
12. Attach resuscitator bag to the 15 mm connector of the KING LTS-D. While gently bagging the patient to assess ventilation, simultaneously withdraw the KING LTS-D until ventilation is easy and free flowing (large tidal volume with minimal airway pressure).
13. Depth markings are provided at the proximal end of the KING LTS-D which refer to the distance from the distal ventilatory opening. 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 centimeters, from the vocal cords to the teeth.
14. Lubricate NG tube (up to 18 french) and pass thru the King LTS-D gastric access lumen. (This is a paramedic skill). Attach to low suction to decompress the stomach.
15. Confirm proper position by auscultation, chest movement and verification of CO₂ and oxygen saturation by attaching capnography and pulse ox devices.



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16. Re-adjust cuff inflation to just seal volume (cuffs inflated with minimum volume necessary to seal the airway at the peak ventilatory pressure employed).
17. Secure KING LTS-D to patient using tape or other accepted means. A bite block can also be used, if desired.



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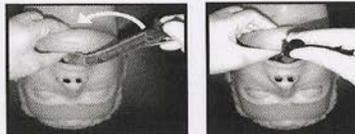
KING LTS-D™ EMS Quick Reference Insert

**Refer to full IFU for detailed information and user tips.*

1. Apply chin lift and introduce KING LTS-D into corner of mouth.



2. Advance tip under base of tongue, while rotating tube back to midline.



3. Without exerting excessive force, advance tube until base of connector is aligned with teeth or gums.

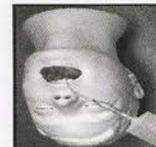


4. Inflate cuffs:

size 3 - 50ml

size 4 - 70ml

size 5 - 80ml



5. Attach resuscitator bag. While gently bagging, slowly withdraw tube until ventilation is easy and free flowing (large tidal volume with minimal airway pressure).



6. Lubricate gastric tube (up to an 18 Fr) prior to inserting into the KING LTS-D's gastric access lumen.



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KING LTS-D™ EMS Quick Reference Insert

*Refer to full IFU for detailed information and user tips.

Single Valve / Pilot Balloon:

Orientation / X-ray Line

Ventilatory Openings:
In front of the larynx for efficient ventilation and allows passage of fiberoptic bronchoscope or tube exchange catheter.

Proximal Cuff:
Stabilizes tube and seals the oropharynx.

Bi-lateral Eyelets:
Additional eyelets to supplement ventilation.

Distal Cuff:
Reduces the possibility of gastric insufflation.

Distal Opening of Gastric Access Lumen

Proximal Opening of Gastric Access Lumen:
Allows passage of 18 Fr gastric tube.

cm Depth Markings

Proximal Cuff
Inflates at the base of the tongue. Isolates the laryngopharynx from the oropharynx and nasopharynx.

Distal Cuff
Inflates in the esophagus. Isolates the laryngopharynx from the esophagus.

Size	Description	Connector Color	OD	ID*	Gastric Tube Size	Inflation Volume
3	4-5 feet (122-155 cm) in height	Yellow	18 mm	10 mm	≤18 Fr	45-60 ml
4	5-6 feet (155-180 cm) in height	Red	18 mm	10 mm	≤18 Fr	60-80 ml
5	greater than 6 feet (180 cm) in height	Purple	18 mm	10 mm	≤18 Fr	70-90 ml

*Equivalent ID of Ventilation Lumen

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