

**2E – SUPRAGLOTTIC AIRWAYS
ADULT & PEDIATRIC**

EMT
EMT-INTERMEDIATE 85
ADVANCED EMT
PARAMEDIC

Indications:

1. Hypoxia and/or hypoventilation refractory to non-invasive airway/respiratory management.
2. Airway protection to reduce aspiration in the setting of sustained altered mental status with a Glasgow Coma Scale Score < 8.
3. Three unsuccessful oral and/or nasal intubation attempts in the above settings. An intubation attempt has occurred when the tip of the endotracheal tube is advanced beyond the gum line or into a nare. Attempts are counted per patient not per intubator. It is not necessary to first attempt intubation if a difficult airway is anticipated or visualized. A supraglottic airway may be used as the first-line airway in these cases.

Contraindications:

1. Ability to maintain oxygenation and ventilation by less invasive methods, such as Bag-Valve-Mask ventilation.
2. Intact gag reflex
3. Known esophageal disease
4. Ingestion of caustic substance (e.g. lye, acids) or extensive airway burns
5. Tracheotomy or laryngectomy
6. Suspected Foreign Body Airway Obstruction
7. (Relative Contraindication): Patient size outside of manufacturer recommended range for airway size used. The supraglottic airway may be utilized in such patients if the fit of the airway allows for appropriate oxygenation and ventilation of the patient.

Precaution:

Emerging medical literature indicates concerns regarding reduction in cerebral arterial flow and impedance of cerebral venous return due to pressure effects of supraglottic airways. Supraglottic airways should not be utilized when other methods of airway management are capable of achieving needed oxygenation/ventilation.

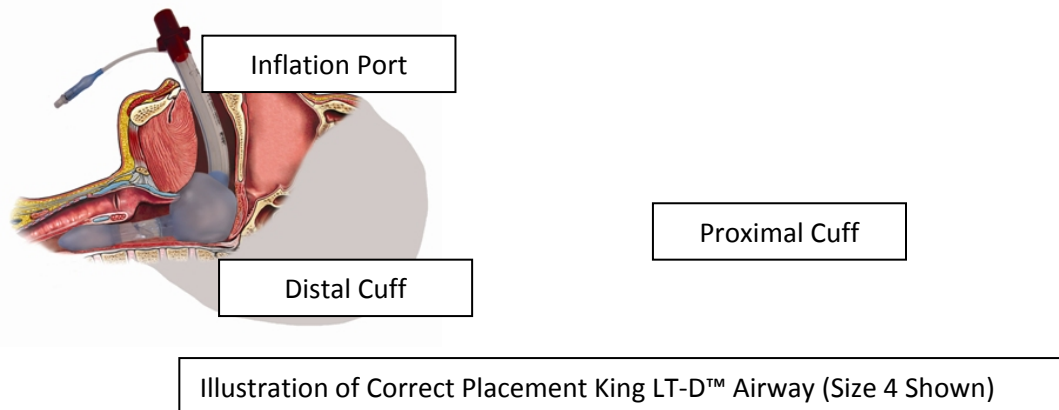
Approved by Medical Control Board 1/16/13; Effective 4/1/13. Replaces 1/15/13 and all prior versions.

PROTOCOL 2E: Supraglottic Airways – Adult & Pediatric, cont.

Technique (King LT-D™/LTS-D™ - see protocol Special Note):

Patient Size	King Airway Size	15 mm Connector Color	Typical Cuff Inflation
35 - 45 inches height or 12-25 kg	2	Green	25 – 35 mL
41 - 51 inches height or 25-35 kg	2.5	Orange	30-40 mL
4 ft – 5 ft height	3	Yellow	45 – 60 mL
5 ft – 6 ft height	4	Red	60 – 80 mL
6 ft + height	5	Purple	70 – 90 mL

The King LT-D™/LTS-D™ Airway has two cuffs that inflate from one port. The smaller, distal cuff inflates in the esophagus and serves to isolate the laryngopharynx from the esophagus. The larger, proximal cuff inflates at the base of the tongue and serves to isolate the laryngopharynx from the oropharynx and nasopharynx.



To prepare the King LT-D™/LTS-D™ Airway:

- Test cuffs inflation by injecting air into the cuffs through the inflation port.
- Remove all air from cuffs prior to insertion.
- If lubricant is applied to the posterior aspect of the tube, take care to avoid the introduction of lubricant in or near the ventilation portals in the airway.

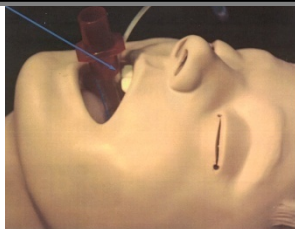
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- Hold the King LT-D™/LTS-D™ Airway at the connector with dominant hand (right hand dominant depicted)
- With non – dominant hand, hold mouth open and apply chin lift, **unless contraindicated by C – spine precautions or patient position**
- With a lateral approach from the right, introduce tip into mouth
- Laryngoscope (by EMT- I85 or higher license) may allow e

- Advance the tip behind the base of the tongue while rotating tube back to midline, so that the blue orientation line faces the chin of the patient



- Without exerting excessive force, advance tube until base of connector is aligned with teeth or gums
- Inflate cuffs with supplied syringe – use minimum mL necessary to achieve seal for appropriate oxygenation/ventilation. **Excessive cuff inflation may compromise cerebral blood flow!**



- Attach bag-valve to King LT-D™/LTS-D™ Airway
- Gently ventilate the patient while withdrawing the tube until ventilation is easy (without significant resistance)
- Confirm proper position by auscultation of epigastrium and chest, physiologic changes, and waveform capnography (if equipped ;capnography is not required for King LT-D™/LTS-D™ Airway

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Removal of the KING LT-D™/LTS-D™ Airway:

1. Once in correct position, the KING LT-D™/LTS-D™ Airway should be well tolerated until return of airway reflexes.
2. Suction **MUST** always be available when a King LT-D™/LTS-D™ Airway is removed. Anticipate vomiting with removal, positioning patient in lateral recumbent position unless contraindicated. A suction catheter up to an 18 French size can be inserted through the gastric access lumen of the King LTS-D™.
3. Completely deflate cuffs prior to removal.

Additional Information:

1. If unable to place a King LT-D™/LTS-D™ Airway in three attempts, utilize BVM ventilation.
2. Ventilation portals of the King LT-D™/LTS-D™ Airway must align with the laryngeal inlet for adequate oxygenation and ventilation. Insertion depth should be adjusted to optimize ventilation.
3. Ensure cuffs are not over inflated. Inflate the cuffs with the minimum volume necessary to seal the airway. If the patient becomes more alert, it may be helpful in retaining the tube to remove a slight amount of air from the cuffs.
4. Most unsuccessful insertion attempts relate to the failure to keep the tube in a midline position during insertion.
5. Do not force the tube during insertion; this may result in trauma to the airway or esophagus.
6. Document any complications as well as all methods used to ensure appropriate placement of the King LT-D™/LTS-D™ Airway including auscultation of absence of epigastric sounds and presence of lung sounds, physiologic changes (chest rise and fall, improved oxygenation, condensation in King LT-D™/LTS-D™ Airway with exhalations), and waveform capnography readings (if equipped).
7. Assess and document placement verification of the King LT-D™/LTS-D™ Airway after patient moves and periodically throughout care and transportation.

Special Note:

This protocol utilizes the King LT-D™ Airway to illustrate one method of placing a supraglottic airway. The Oklahoma State Department of Health and the University of Oklahoma Department of Emergency Medicine EMS Section do not exclusively endorse the King LT-D™ Airway for supraglottic airway use by EMS professionals. Check with your EMS system's medical oversight physician(s) for specific protocol directions on equipment to be used in establishing and maintaining a supraglottic airway if not using the King LT-D™ Airway.