



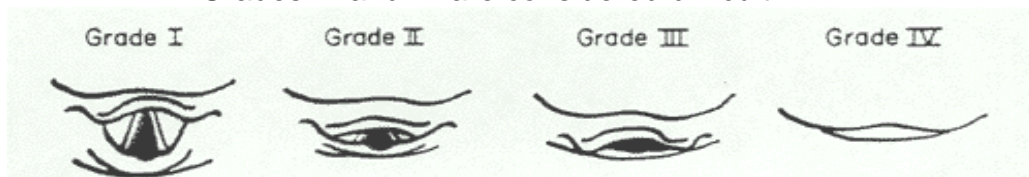
King (LT- D) Airway

APPROVED: _____
EMS Medical Director

EMS Administrator

- 1 Goal/Purpose/Description
 - 1.1 The King Airway (LT-D) is to be used as an alternative to endotracheal intubation for advanced airway management
 - 1.2 It is placed in the esophagus and serves as a mechanical airway when ventilation is needed for patients who are over 4 feet tall and apneic or unconscious with ineffective ventilations
 - 1.3 The King Airway is a latex free single use device
 - 1.4 It consists of a curved tube with ventilation apertures located between two inflatable cuffs
 - 1.5 Both cuffs are inflated using a single valve/pilot balloon.
 - 1.6 The distal cuff is designed to seal the esophagus, while the proximal cuff is intended to seal the oropharynx.
 - 1.7 Attached to the proximal end of the tube is a 15 mm connector for attachment to a standard breathing circuit or resuscitation bag.

- 2 Indications
 - 2.1 When endotracheal intubation is unsuccessful after 2 attempts
 - 2.2 Patients over 4 feet tall in respiratory or cardiac arrest
 - 2.3 It is not necessary to attempt intubation if a difficult airway is anticipated or visualized. The King airway may be used as the first line airway in these cases
 - 2.3.1 Below is the Cormick and Lehame Grades of Difficult Airway
Grades III and IV are considered difficult



- 3 Contraindications
 - 3.1 Active gag reflex
 - 3.2 Caustic ingestion or extensive airway burns

Issue Date: July 1, 2009
Effective Date: March 1, 2012
Review Date: March 2014

- 3.3 Known esophageal disease
- 3.4 Laryngectomy with stoma
- 3.5 Height less than 4 feet

4 Precautions

- 4.1 The King airway may not protect from regurgitation and aspiration
- 4.2 Avoid high airway pressures as it may divert gas into the atmosphere or stomach
- 4.3 Lubricate only the posterior surface of the King LT– D to avoid blockage of the ventilation apertures or aspiration of the lubricant

5 Equipment

- 5.1 The King LT-D airway comes in three sizes

King LT-D Size	3	4	5
Recommended Patient Height	4-5 Ft	5-6 Ft	>6 Ft
Cuff Volume	50 ml	70 ml	80 ml
Connector Color	Yellow	Red	Purple

- 5.2 The King airway may come prepackaged in a kit that includes the tube, a 60 cc or 80 cc syringe and lubricant
- 5.3 A tongue blade may be used to facilitate placement of the King airway

6 Procedure

6.1 Insertion

- 6.1.1 Choose the correct size King airway based on the patients height
- 6.1.2 Test the cuff inflation system by injecting the maximum recommended volume of air into the cuffs
- 6.1.3 Remove all air from the cuffs prior to insertion
- 6.1.4 Apply a water-based lubricant to the beveled distal tip and posterior aspect of the tube taking care to avoid the introduction of lubricant in or near the ventilatory openings
- 6.1.5 Pre-oxygenate the patient
- 6.1.6 Position the head: The ideal head position for insertion of the King airway is the sniffing position; tube can also be used with the head in a neutral position
- 6.1.7 Hold the King airway at the connector end with the dominate hand. With the non-dominant hand hold the mouth open and apply a chin lift unless contraindicated due to suspected spinal injury
- 6.1.8 With the King airway rotated laterally 45 – 90 degrees such that the blue orientation line is touching the corner of the

mouth, introduce the tip of the tube into the mouth and advance behind base of the tongue. Never force the tube into position

- 6.1.9 As the tube tip passes under the tongue rotate the tube back to midline (blue orientation line faces the chin)
- 6.1.10 Without exerting excessive force, advance the King airway until the base of the connector aligns with the teeth or gums.
- 6.1.11 Fully inflate the cuffs using the maximum volume of the syringe included in the EMS kit. (see chart)
- 6.1.12 Attach the bag valve mask device to the 15 mm connector of the King and gently start bagging the patient to assess ventilation, simultaneously withdraw the airway until ventilation is easy and free flowing (large tidal volume with minimal airway pressure)
- 6.1.13 Note the depth markings to give an approximate distance in cm's to the vocal cords
- 6.1.14 Confirm proper position by auscultation, chest movement and verification of CO₂ using waveform capnography
- 6.1.15 Readjust cuff inflation to just seal the airway
- 6.1.16 Secure the King airway to the patient using an accepted method and bite block/oral airway. Use care not to place tape over the proximal opening of the gastric access device



- 6.2 Removal of the King LT-D
 - 6.2.1 Once it is in the correct position, the King LT-D is well tolerated until the return of protective reflexes
 - 6.2.2 Suction must always be available when the King airway is removed
 - 6.2.3 It is important that both cuffs are completely deflated prior to removal of the King airway
 - 6.2.4 Anticipate vomiting with removal of the King airway and position the patient on the side if possible

7 Special information / Complications

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- 7.1 If unable to place the King airway in two attempts, abandon further attempts and utilize bag-valve-mask ventilation
 - 7.2 Depth of insertion is key to providing a patent airway. Ventilatory openings of the King airway must align with the laryngeal inlet for adequate ventilation to occur. Accordingly, the insertion depth should be adjusted to maximize ventilation. Experience has indicated that initially placing the King airway deep enough to align the base of the connector to the teeth or gums, inflating the cuffs, and withdrawing the tube until ventilations are optimized will assist in optimal placement
 - 7.3 Ensure that the cuffs are not over inflated. Inflate the cuffs with the minimum volume necessary to seal the airway at the peak ventilatory pressure. If the patient becomes more alert it may be helpful in retaining the tube to remove a slight amount of the air from the balloons
 - 7.4 Most unsuccessful attempts relate to the failure to keep the tube in a midline position during insertion
 - 7.5 Do not force the tube during insertion; this may result in trauma to the airway or esophagus
 - 7.6 Intubation of the trachea can occur
 - 7.7 Do not use the King LT-D airway in people < 4 feet tall
- 8 Documentation
- 8.1 Document the size and depth in cm's of the King airway
 - 8.2 Document any complications of intubation attempts or King airway insertion
 - 8.3 Document all methods used to ensure appropriate placement of the King airway including lung sounds, absence of epigastric sounds, waveform capnography reading, and misting in the King airway
 - 8.4 Assess and document placement verification of the King airway after every patient move and frequently during care and transportation
- 9 Transport Considerations
- 9.1 Contact the intended receiving hospital as early as possible during the course of patient treatment for respiratory and/or cardiac arrest
 - 9.2 Notify the hospital during the verbal report that the airway has been maintained using a King airway
 - 9.3 Ensure that the resuscitation team, including the receiving physician and respiratory therapist, are aware that the King airway is in place on arrival to the receiving hospital and familiarize them as needed with the equipment