King Airway Device

Instructions For Use

King LT-D Specs

The KING LT-D 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.

1. Single Valve/ Pilot Balloon:
   Inflates both cuffs

2. Distal Cuff:
   Blocks entry of esophagus. Reduces the possibility of gastric insufflation

3. cm Depth Markings

4. Orientation / X-ray Line

5. Proximal Cuff:
   Stabilizes tube and seals the Oropharynx

6. Bi-lateral Eyes:
   Additional eyelets to supplement ventilation

7. Two Ventilation Outlets:
   In front of the larynx for efficient ventilation and allows passage of fiberoptic bronchoscope or tube exchange catheter.

King LTS-D Specs

The KING LTS-D consists of a curved double-lumen tube with separate pathways for ventilation and access to the stomach. The ventilation lumen ends between the two inflatable cuffs with a variety of openings intended to align with the laryngeal inlet. Attached to the proximal end of the ventilation lumen is a 15 mm connector for attachment to a standard breathing circuit or resuscitation bag. The gastric access lumen is a separate conduit that allows passage of up to an 18 Fr standard gastric tube from its external proximal opening to the distal tip of the KING LTS-D, which is intended to be positioned in the upper esophagus. This allows the gastric tube to be easily inserted into the stomach for removal of fluids. In the absence of a gastric tube, the gastric access lumen allows channeling of gases and fluids from the esophagus and stomach to a point outside the patient’s mouth.

1. Single Valve/ Pilot Balloon:
   Inflates both cuffs

2. Proximal opening of Gastric Access Lumen:
   Allows passage of 18Fr gastric tube after removal of gastric diverter

3. cm Depth Markings

4. Proximal Cuff:
   Stabilizes tube and seals the Oropharynx

5. Bi-lateral Eyes:
   Additional eyelets to supplement ventilation

6. Distal Cuff:
   Blocks entry of esophagus. Reduces the possibility of gastric insufflation

7. Distal Opening of Gastric Lumen

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

9. Orientation / X-ray Line

10. Kit also Includes:
    A. Gastric Tube Includes Blue Pigtail and 5-1 adapter
    B. Sterile Lubricant
    C. 60cc Syringe
    D. Gastric Diverter

INDICATIONS FOR USE

The AIRWAY DEVICE is indicated for airway management by providing a patent airway to allow patient ventilation.

CONTRAINDICATIONS

The following contraindications are applicable for routine use of the AIRWAY DEVICE:

• Responsive patients with an intact gag reflex.
• Patients with known esophageal disease.
• Patients who have ingested caustic substances.
• The AIRWAY DEVICE is not proven to protect the airway from the effects of regurgitation and aspiration. The risk of regurgitation and aspiration must be weighed against the potential benefit of establishing an airway.

During transition to spontaneous ventilation, airway manipulations or other methods may be needed to maintain airway patency.

The KING LT-D or KING LTS-D (AIRWAY DEVICE) is a single use device intended for airway management.

The KING LT-D or KING LTS-D (AIRWAY DEVICE) is provided non-sterile.

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KING LT-D™ is a trademark of King Systems. U.S. Patent: 5,819,733

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Lubricate only the posterior surface of the AIRWAY DEVICE to avoid blockage of the ventilation apertures or aspiration of the lubricant.

Intubation of the trachea cannot be ruled out as a potential complication of the insertion of the AIRWAY DEVICE.

After placement, perform standard checks for breath sounds and utilize an appropriate carbon dioxide monitor as required by protocol.

Lubricate only the posterior surface of the AIRWAY DEVICE to avoid blockage of the ventilation apertures or aspiration of the lubricant.

The AIRWAY DEVICE is not intended for re-use.

**Warnings/Precautions**

- High airway pressures may divert gas to the atmosphere.
- Intubation of the trachea cannot be ruled out as a potential complication of the insertion of the AIRWAY DEVICE.
- After placement, perform standard checks for breath sounds and utilize an appropriate carbon dioxide monitor as required by protocol.

- Lubricate only the posterior surface of the AIRWAY DEVICE to avoid blockage of the ventilation apertures or aspiration of the lubricant.

The AIRWAY DEVICE is not intended for re-use.

**Insertion Instructions**

1. Using the information provided, choose the correct AIRWAY DEVICE size, based on patient height.
2. Test cuff inflation system by injecting the maximum recommended volume of air into the cuffs (refer to Sizing Information chart). Remove all air from cuffs prior to insertion.
3. Apply a water-based lubricant to the beveled end of the tube.
4. As the AIRWAY DEVICE is advanced around the corner in the posterior pharynx, under the base of the tongue, it is important that the tip of the device is maintained at the midline. If the tip is directed laterally or retracted, it may enter the piriform fossa and the airway obstruction is less likely, especially when spontaneous ventilation is employed. Accordingly, the insertion depth should be adjusted to maximize ventilation. Experience has indicated that initially placing the tip is placed or deflected laterally, it may enter the piriform fossa and the epiglottis or other tissue can be drawn into the ventilator opening, resulting in obstruction. During spontaneous ventilation, the epiglottis or other tissue can be drawn into the ventilator opening, resulting in obstruction.
5. Ensure that the cuffs are not over inflated. Cuff pressure should be adjusted to reduce the stimulus during wake-up.
6. Ensure that the cuffs are not over inflated. Cuff pressure should be adjusted to reduce the stimulus during wake-up.
7. If applicable, maintain appropriate depth of anesthesia. In general, the depth of anesthesia needed is a little more than that required for insertion of a Guedel tube. As the AIRWAY DEVICE is withdrawn, the initial ventilation opening exposed to the trachea should be adjusted to minimize ventilation. Experience has indicated that initially placing the tube also allows it to be inserted with the head in a neutral position.
8. Hold the AIRWAY DEVICE at the connector with dominant hand.
9. With non-dominant hand, hold mouth open and apply chin lift unless contraindicated by C-spine precautions or patient position.
10. As tube tip passes under tongue, rotate tube back to midline (blue orientation line faces chin).
11. Without exerting excessive force, advance AIRWAY DEVICE to the base of the tonsils in the oropharynx.

- **USER TIPS**
  - To achieve the best depth of insertion for the following reasons:
  - If using the KING LTS-D
    - Do not cover the proximal opening of the gastric access lumen of the KING LTS-D.
    - Only for use with KING LTS-D
      1. Using the gastric tube as a measuring device, determine the length of the gastric tube to be inserted by measuring the length from nose to earlobe and earlobe to xiphoid process.
      2. Add the measurements together and note this total distance in reference to the black marks on the gastric tube.
      3. Remove gastric diverter then lubricate gastric tube [up to 18 Fr] prior to inserting into the KING LTS-D's gastric access lumen.
      4. Advance gastric tube the total distance noted in step #2 and confirm placement in stomach.
      5. Seat 5-in-1 adapter snugly to prevent suction loss.
      6. Always use the least amount of suction that effectively decompresses the stomach.
      7. Follow any irrigation with an injection of air through the blue pigtail.
      8. To cap tube, fit blue pigtail over 5-in-1 adapter.

**Removal of the Airway Device**

1. Once it is in the correct position, the AIRWAY DEVICE is well tolerated until the return of protective reflexes.
2. AIRWAY DEVICE removal should always be carried out in an area where suction equipment and the ability for rapid intubations are present.
3. For AIRWAY DEVICE removal, it is important that both cuffs are completely deflated.