The disposable KING LT-D offers versatility and ease of use. EMS kit includes KING LT-D, designated cuff inflation syringe, lubricant, and instructions for use.

**KING LT-D™ EMS Kit**

Kit Ordering Numbers

- ease of insertion
- superior ventilation
- less traumatic

The KING LT-D is easily inserted in only a few seconds.

The KING LT-D is designed for superior positive pressure ventilation without gastric insufflation.

The KING LT-D results in a low incidence of sore throats and trauma.

Exclusively distributed for EMS by Tri-anim

King Systems
A Comart Medical Company
King LT-D

• The King LT™ is a superior, disposable supraglottic airway tool that utilizes the latest technological advances in materials and design to provide the best non-intubating airway possible.

• The King LT™ emergency airway is a safe, reliable, cost effective and efficient tool to provide emergency ventilation when direct laryngoscopy is not feasible or attainable.

  • From: www.medcompare.com
KING LT-D Design

**Latex Free and Single Patient Use**

**Orientation / X-ray Line**

**Single Valve / Pilot Balloon**
Inflates both the proximal and distal cuffs.

**Proximal Cuff**
Stabilizes KING LT-D and seals the oropharynx.

**CM Depth Markings**

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

**Bilateral Eyelets**
Additional eyelets to supplement ventilation.

**Distal Cuff**
Blocks entry of esophagus. Reduces the possibility of gastric insufflation.
We will not be using the King LTS-D in our system!
**Placement Diagram**

**King LTS-D**

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

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

**Gas Flow**
- Two Primary Ventilatory Outlets
- Additional Side Eyelets

**cm Depth Markings**
- Distance from Distal Opening

**KING LT-D**

**Hyoid Bone**
**Epiglottis**
**Vocal Cords**
**Soft Palate**
**Hard Palate**
**Trachea**
**Esophagus**

**Single Inflation Valve**
Tube Placement

- Oropharyngeal cuff
- Trachea
- Esophagus
- Esophageal cuff
The design of the KLTD & KLTSD offers:

1. The ability to provide positive pressure ventilation as well as spontaneous breathing.

2. A seal pressure over 30 cm H₂O.

3. Ease of insertion.

4. Low incidences of sore throat and trauma.

5. Minimizes gastric insufflation.

6. KLTSD allows easy passing of a gastric tube through the gastric access lumen into the stomach.
KING LT-D Design (cont.)

- Soft, flexible beveled tip inside distal cuff
- Soft, pliable cuffs
- Two main ventilation outlets and bi-lateral eyes for additional ventilation
- Ramp directs tube exchange catheter out ventilation opening
**KING LTS-D Design**

- Distal tip and cuff flattened for more anatomical fit behind larynx
- Multiple ventilation outlets and bilateral eyelets for best ventilation
- Ramp directs tube exchange catheter out Primary Ventilatory Opening
Curved Design

The KLTD/KLTSD supraglottic airways are designed with a straightened, beveled distal tip that assists in directing the airways posterior to the larynx and into the upper esophagus. Due to this unique configuration, there is minimal risk of either device entering the trachea.
Indications of the KLTD/KLTSD

The KLTD/KLTSD is intended for airway management in patients over 3 feet in height (90cm) for controlled or spontaneous ventilation.

Contraindications

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

Note: The KLTD/KLTSD does not protect the airway from the effects of regurgitation and aspiration.
Sizes for MWLCEMS

- We will be carrying the following tubes:
  - Size 2 King LT-D Peds 3-4 ft patient (12-25kg)
  - Size 3 King LT-D Adult 4-5 ft patient
  - Size 4 King LT-D Adult 5-6 ft patient
“Quick reference”

• Use this guide to figure out which tube to use.

2 = 3-4 ft patient (2-3-4)

3 = 4-5 ft patient (3-4-5)

4 = 5-6 ft patient (4-5-6)
### PRODUCT INFORMATION

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<thead>
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<th>Product</th>
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### SIZING INFORMATION

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<th>Connector Color</th>
<th>Patient Criteria</th>
<th>Cuff Pressure</th>
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<th>KLTSD O.D./I.D.*</th>
<th>KLTSD Cuff Volume</th>
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<td>2</td>
<td>Green</td>
<td>35-45 inches (90-115 cm) or 12-25 kg</td>
<td>60 cm H₂O</td>
<td>11 mm/7.5 mm</td>
<td>n/a</td>
<td>25-35 ml</td>
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<td>2.5</td>
<td>Orange</td>
<td>41-51 inches (105-130 cm) or 25-35 kg</td>
<td>60 cm H₂O</td>
<td>11 mm/7.5 mm</td>
<td>n/a</td>
<td>30-40 ml</td>
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<td>3</td>
<td>Yellow</td>
<td>4-5 feet (122-155 cm)</td>
<td>60 cm H₂O</td>
<td>14 mm/10 mm</td>
<td>18 mm/10 mm</td>
<td>45-60 ml</td>
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<tr>
<td>4</td>
<td>Red</td>
<td>5-6 feet (155-180 cm)</td>
<td>60 cm H₂O</td>
<td>14 mm/10 mm</td>
<td>18 mm/10 mm</td>
<td>60-80 ml</td>
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<tr>
<td>5</td>
<td>Purple</td>
<td>greater than 6 feet (&gt;180 cm)</td>
<td>60 cm H₂O</td>
<td>14 mm/10 mm</td>
<td>18 mm/10 mm</td>
<td>70-90 ml</td>
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KLTD/KLTSD Insertion Guide, Preparation

- Choose correct size based on patient’s height:
  - 4 to 5 ft (122-155 cm) Size 3
  - 5 to 6 ft (155-180 cm) Size 4
  - > than 6 ft (180 cm) Size 5

- Test cuff inflation system for air leak.

- Apply water-soluble lubricant to the distal tip.
Side Ventilation Ports
**Insertion Guide, Step 1**

Hold the KLTD/KLTSD at the connector with dominant hand.

With non-dominant hand, hold mouth open and apply chin lift.

Using a lateral approach, introduce tip into mouth.

*Insertion steps are the same for both the KING LT-D and KING LTS-D.*
Insertion Guide, Step 2

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.
Inflating the KLTD/KLTSD with the appropriate volume:

- Size 3 = 50ml
- Size 4 = 70ml
- Size 5 = 80ml

Note: Typical inflation volumes are as follows:
- Size #3 45-60 ml, Size #4 60-80 ml, Size #5 70-90 ml
Insertion Guide, Step 5

Attach the resuscitator bag to the KLTD/KLTSD.

While bagging the patient, gently withdraw the tube until ventilation becomes easy and free flowing (large tidal volume with minimal airway pressure).

Adjust cuff inflation if necessary to obtain a seal of the airway at the peak ventilatory pressure employed.
Warnings!

- It does not protect the airway from regurgitation and aspiration.
- High airway pressures may divert gas to either the stomach or the atmosphere.
- Lubricate only the posterior surface of the tube to prevent blockage of the aperture or possible aspiration of lubricant.
Warnings!

- Intubation of the trachea can not be ruled out as a potential complication of the insertion. After placement, perform routine checks for breath sounds and utilize an appropriate CO2 detector as required.
**KLTD/KLTSD Removal**

- Suction above cuffs in the oral cavity if indicated.

- **FULLY** deflate both cuffs before removal of the KLTD/KLTSD. **Note:** If a 90 cc syringe is not available, it may require more than one filling to achieve complete evacuation of the KLTD/KLTSD cuffs.

- Remove the KLTD/KLTSD when protective reflexes have returned.
Conclusion

The KLTD/KLTSD are versatile airway tools offering:

1. The ability to provide positive pressure ventilation as well as spontaneous breathing.
2. A seal pressure over 30 cm H₂O.
3. Ease of insertion.
4. Low incidences of sore throat and trauma.
5. Minimizes gastric insufflation.
6. The KING LTS-D allows easy passing of a gastric tube through the gastric access lumen into the stomach.
1. BSI
2. Attach Sp02 monitor
3. Choose correct size of King LT-D
4. Test cuff inflation system, remove all air.
5. Apply water based lubricant to posterior aspect of the tube. Avoid the ventilatory openings!
6. Pre-oxygenate with 100% 02 for at least 1 min.
7. Place the head in neutral or “sniffing” position.
8. Hold the tube in your dominant hand. With non-dominant hand, hold mouth open and apply chin lift.

9. With the King LT-D placed laterally so the blue line is at the corner of the mouth, introduce the tip into the mouth and advance behind the base of the tongue. Do not force the tube into position.

10. As tube passes under the tongue, rotate the tube back to midline (blue line faces the chin).
Procedure review

11. Without excessive force, advance KING LT-D until proximal colored end is aligned with teeth or gums.

12. With a syringe, inflate cuffs with enough volume to seal the airway at the peak ventilatory pressure (just sealed volume).

13. Attach the BVM to the King LT-D. 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).
14. Attach EZ-Cap or ETC02 adaptor directly to the King LT-D.

15. Confirm proper position by auscultation, chest movement and verification on your CO2 monitoring device.

16. Secure the King LT-D with tape or a commercial device.

17. Apply C-Collar to help limit movement of the patients head.
Review Questions

??????
Review question

- The proper size King LT-D for a patient 5 foot 7 inches tall is.

  - a. 4
  - b. 5
  - c. Either 4 or 5
  - d. 6
Review question

- The proper size King LT-D for a patient 5 foot 7 inches tall is.

- a. 4
- b. 5
- c. Either 4 or 5
- d. 6
Review question

• When inserting the King LT-D, you start the insertion with the tube rotated:

  ❑ a. 90 degrees to the South.
  ❑ b. 45 degrees to the right.
  ❑ c. With the blue line touching the corner of the mouth.
  ❑ d. With the blue line touching the lip.
Review question

• When inserting the King LT-D, you start the insertion with the tube rotated:

  a. 90 degrees to the South.
  b. 45 degrees to the right.
  c. With the blue line touching the corner of the mouth.
  d. With the blue line touching the lip.
Review question

• The King LT-D may need to be withdrawn slightly to allow the best ventilations.

☐ a. True
☐ b. False
Review question

• The King LT-D may need to be withdrawn slightly to allow the best ventilations.

☐ a. True
☐ b. False
Review question

• Once the King LT-D passes the base of the tongue, you should:

  a. Really push hard to get it all the way in.
  b. Rotate it so the blue line is facing the chin.
  c. Rotate 90 degrees back to where it was.
  d. Rotate it back toward the nose.
Review question

• Once the King LT-D passes the base of the tongue, you should?

  a. Really push hard to get it all the way in.
  b. Rotate it so the blue line is facing the chin.
  c. Rotate 90 degrees back to where it was.
  d. Rotate it back toward the nose.
Review question

• The King LT-D is just like an ET Tube and can be used for all ACLS Meds.

☐ a. True
☐ b. False
Review question

• The King LT-D is just like an ET Tube and can be used for all ACLS Meds.

☐ a. True
☐ b. False
Questions?