

KING SYSTEMS C o r p o r a t i o n

Relentless Innovation. Compassionate Solutions.

KLTD/KLTSD

Disposable Supralaryngeal Airways*



NEW!
KING LT-D
pediatrics & adults

*KING LT-D and KING LTS-D™

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.

Designed for the Emergency Airway

Exclusively distributed for EMS by
 **Tri-anim**



KING LT-D™ EMS Kit

Kit Ordering Numbers 100% Latex Free



KING SYSTEMS
A Conquest Medical Company

ease of insertion

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

superior ventilation

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

less traumatic

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

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.

**TWO VENTILATION
OUTLETS**

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



CM DEPTH MARKINGS

PROXIMAL CUFF

Stabilizes KING LT-D and seals the oropharynx.

BILATERAL EYELETS

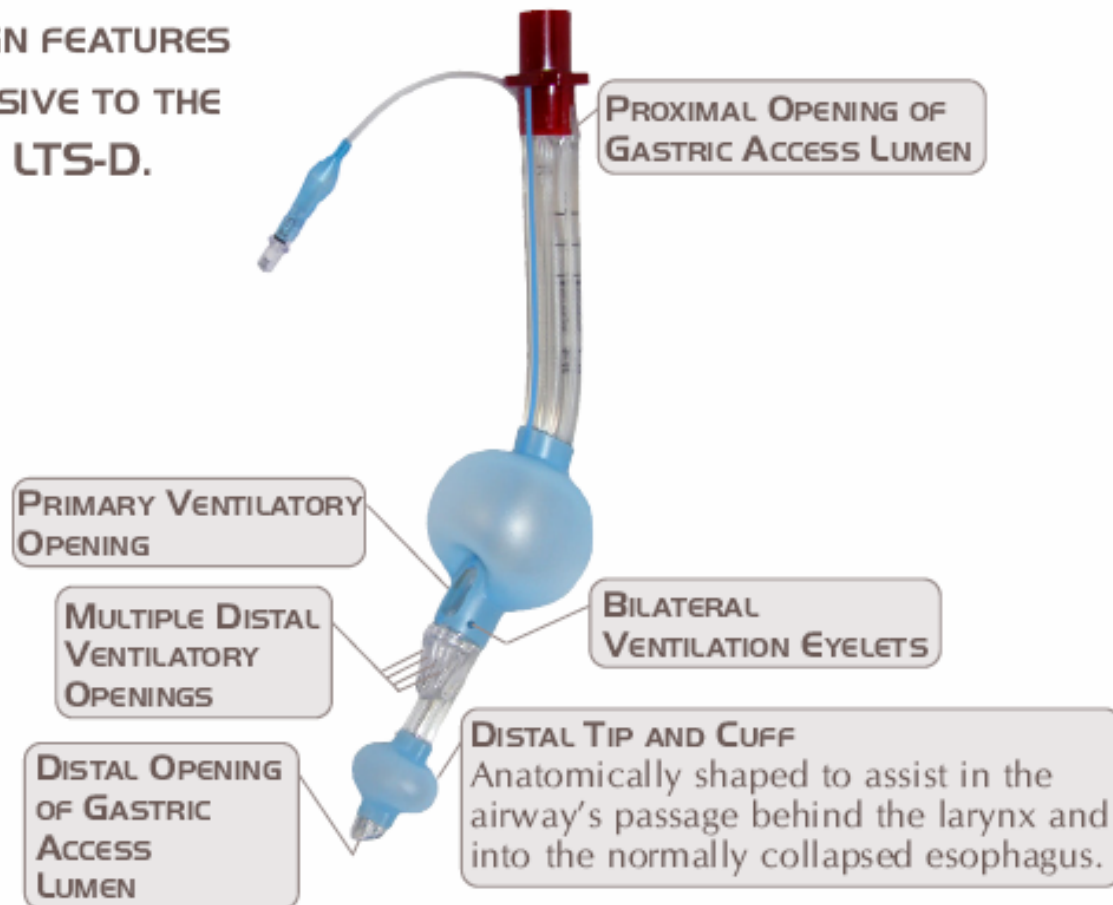
Additional eyelets to supplement ventilation.

DISTAL CUFF

Blocks entry of esophagus. Reduces the possibility of gastric insufflation.

KING LTS-D Design

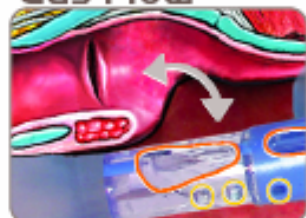
DESIGN FEATURES
EXCLUSIVE TO THE
KING LTS-D.



Placement Diagram



Gas Flow



- Two Primary Ventilatory Outlets
- Additional Side Eyelets

Single Inflation Valve

Hyoid Bone

Epiglottis

Vocal Cords

Hard Palate

Soft Palate

Trachea

Esophagus

KING LT-D

Distal Cuff

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

Proximal Cuff

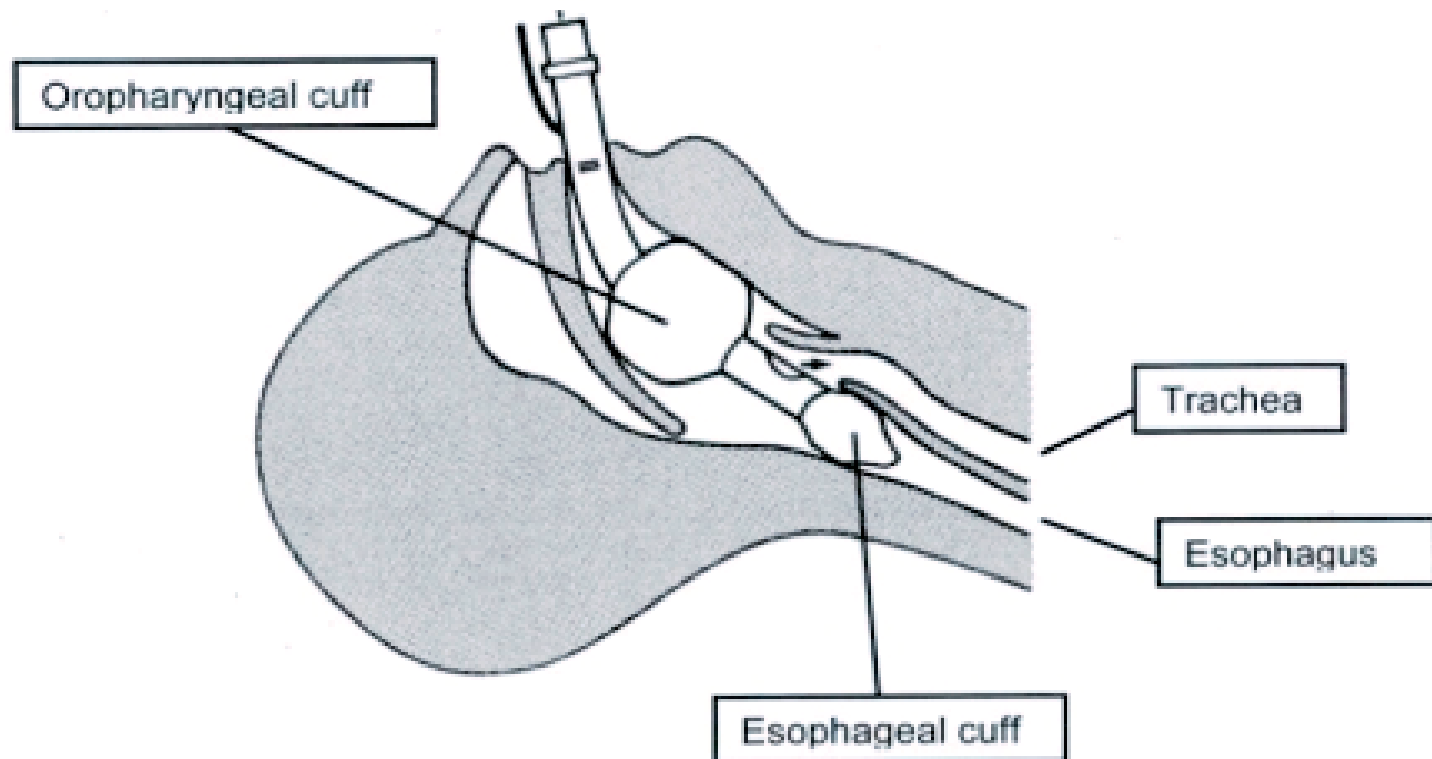
Inflates at the base of the tongue. Isolates the laryngopharynx from the oropharynx and nasopharynx.

cm Depth Markings

- Distance from Distal Opening



Tube Placement

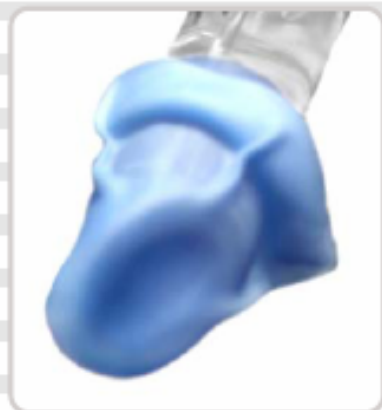


The design of the KLTD & KLTSD offers:

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.



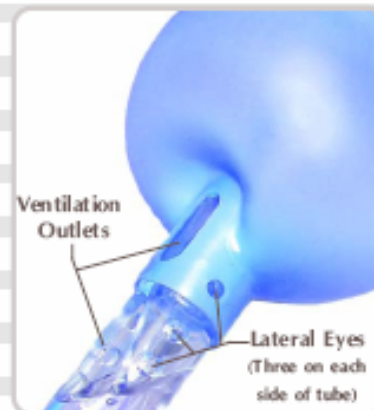
KING LT-D Design (cont.)



Soft, flexible
beveled tip inside
distal cuff



Soft, pliable
cuffs



Two main
ventilation outlets and
bi-lateral eyes
for additional
ventilation

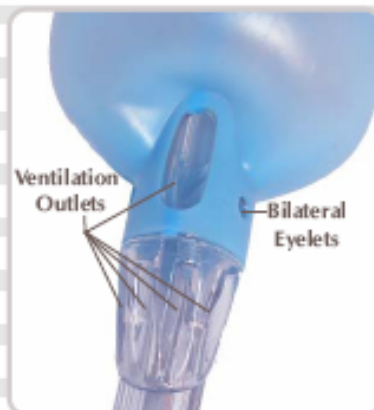


Ramp directs
tube exchange
catheter out
ventilation opening

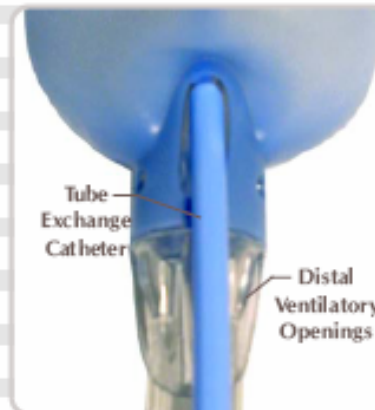
KING LTS-D Design



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)

Sizing & Information

PRODUCT INFORMATION

Product	Size 2	Size 2.5	Size 3	Size 4	Size 5
KLTD	KLTD202	KLTD2025	KLTD203	KLTD204	KLTD205
KLTS	n/a	n/a	KLTS403	KLTS404	KLTS405

SIZING INFORMATION

SIZE	2	2.5	3	4	5
CONNECTOR COLOR	Green	Orange	Yellow	Red	Purple
PATIENT CRITERIA	35-45 inches (90-115 cm) or 12-25 kg	41-51 inches (105-130 cm) or 25-35 kg	4-5 feet (122-155 cm)	5-6 feet (155-180 cm)	greater than 6 feet (>180 cm)
CUFF PRESSURE	60 cm H ₂ O	60 cm H ₂ O	60 cm H ₂ O	60 cm H ₂ O	60 cm H ₂ O
KLTD O.D./I.D.	11 mm/7.5 mm	11 mm/7.5 mm	14 mm/10 mm	14 mm/10 mm	14 mm/10 mm
KLTS O.D./I.D.*	n/a	n/a	18 mm/10 mm	18 mm/10 mm	18 mm/10 mm
KLTD CUFF VOLUME	25-35 ml	30-40 ml	45-60 ml	60-80 ml	70-90 ml



CUFF PRESSURE GAUGE

ITEM # KLT 900

safe...reliable...efficient

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



safe...reliable...efficient

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.

Blue
Orientation Line



***Insertion steps are the same for both the KING LT-D and KING LTS-D.**

safe...reliable...efficient

Insertion Guide, Step 2

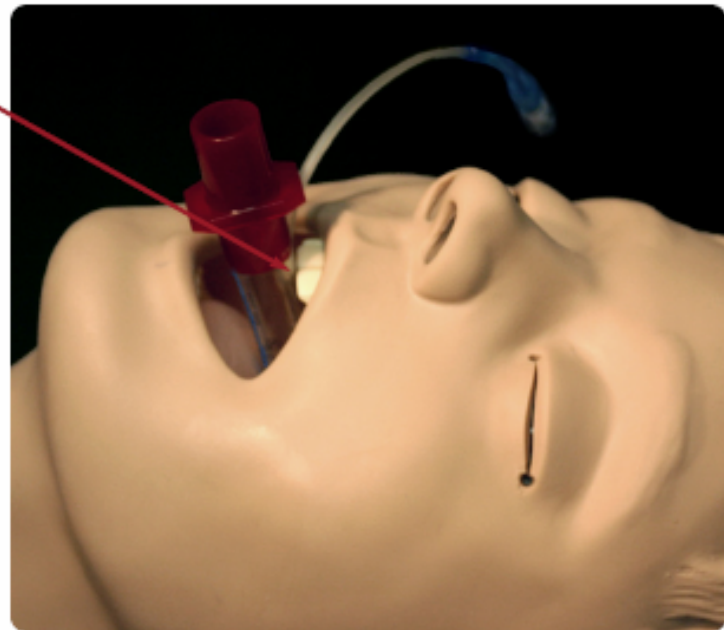
Advance the tip behind the base of the tongue while rotating tube back to midline so that the blue orientation line faces the chin of the patient.



safe...reliable...efficient

Insertion Guide, Step 3

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



Insertion Guide, Step 4

Inflate 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

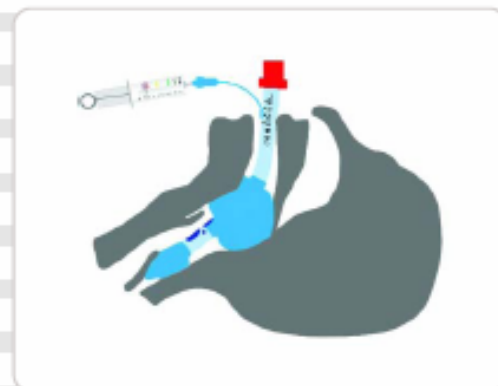
Warnings!

- 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.

safe...reliable...efficient

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.



Procedure review

1. BSI
2. Attach SpO₂ 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% O₂ for at least 1 min.
7. Place the head in neutral or “sniffing” position.

Procedure review

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).

Procedure review

14. Attach EZ-Cap or ETCO2 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?

