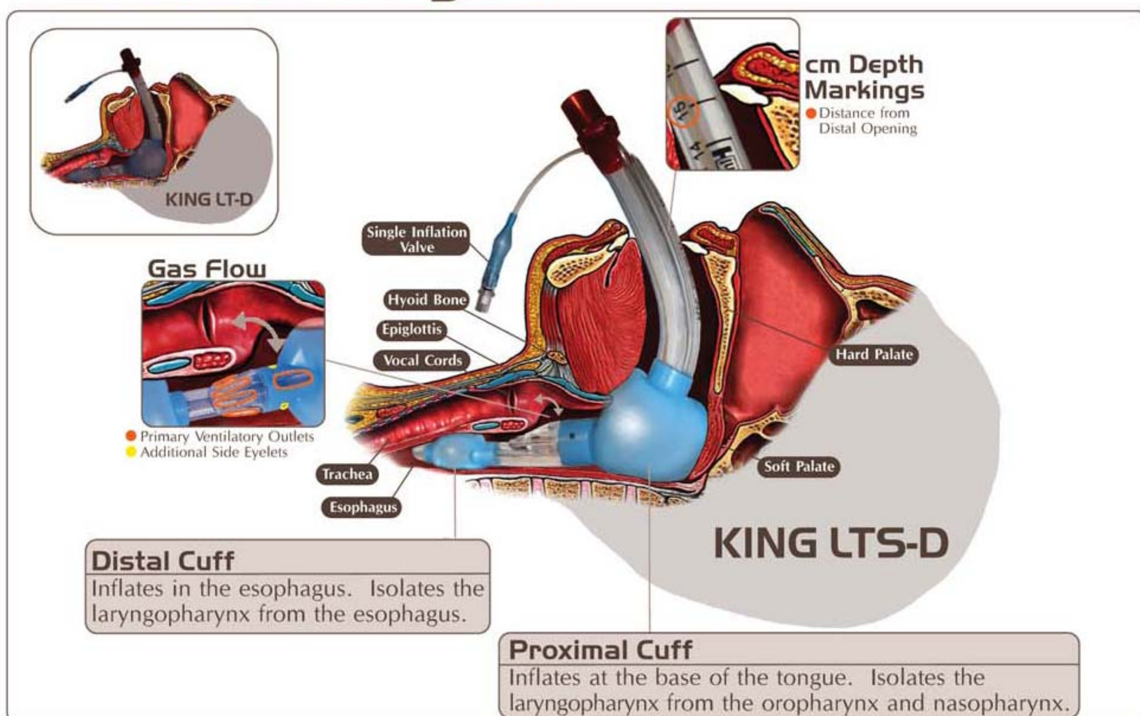
Addendum to Wisconsin First Responder and EMT-Basic Curriculae For Use of the King LTS-D Airway

1. The device
   A. The King LTS-D is 100% latex free
   B. Provided sterile for single patient use
   C. Ability to pass a gastric tube through a second channel of the airway into the stomach.
   D. Okay for use with CPAP device
   E. Device is unlikely to enter trachea
2. Device and design features
   A. Gastric lumen device
      1. Proximal opening
      2. Distal opening
   B. Ventilatory openings
      1. Primary ventilatory opening
      2. Multiple distal ventilatory openings
      3. Bilateral ventilation eyelets
   C. Cuffs
      1. Proximal cuff inflates at base of tongue. Isolates the laryngopharynx from the oropharynx and Nasopharynx.
      2. Distal tip and cuff flattened for more anatomical fit behind larynx. Isolates the laryngopharynx from the esophagus.



3. Indications and contraindications are the same as for other non-visualized advanced airways.
4. Insertion
   A. Choose correct size based on patient's height

KING LTS-D SIZE	3	4	5
Connector Color	Yellow	Red	Purple
Patient Height	4 to 5 feet	5 to 6 feet	Over 6 feet
Cuff Pressure	60 cm H_2O	60 cm H_2O	60 cm H_2O
Cuff Volume	40 – 55 ml	50 – 70 ml	60 – 80 ml

B. Test cuff inflation system for air leak
C. Apply water-soluble lubricant to the distal tip (do not cover tube openings)
D. Position the head
  1. Sniffing position optimal
  2. Neutral position
  3. Obese patients may need elevation of the shoulders and upper back
E. Normal insertion
  1. Hold the King LTS-D at the connector with dominant hand
  2. With non-dominant hand, hold mouth open and apply chin lift unless contraindicated by C-spine precautions or patient position.
  3. Using a lateral approach, introduce the tip into the corner of the mouth
    a) A chin lift or laryngoscope and tongue depressor can be used to lift the tongue anteriorly to allow easy advancement.
  4. Advance the tip behind the base of the tongue while rotating the tube back to midline so that the blue orientation line faces the chin of the patient.
    a) Important that the tip of the device be maintained at the midline to assure that the distal tip is properly placed in the hypopharynx/upper esophagus
  5. Without exerting excessive force, advance tube until base of connector is aligned with teeth or gums
    a) Depth of insertion is important to patent airway.
      (1) Ventilatory openings of the device must align with the laryngeal inlet for adequate oxygenation/ventilation.
      (2) Deeper placement and subsequent retraction is preferred
      (3) Withdrawal of the KLTSD with the cuffs inflated results in a retraction of tissue away from the laryngeal inlet
      (4) Deeper placement eliminates obstruction by epiglottis or other tissue during spontaneous ventilation
  6. Inflate cuffs
    a) Inflate cuffs to volume sufficient to seal the airway
    b) Typical inflation volumes
      (1) Size 3 – 45 to 60 ml.
      (2) Size 4 – 60 to 80 ml.
      (3) Size 5 – 70 to 90 ml.
  7. Attach ventilation device to the connector of the King LTS-D
  8. At the same time, gently bag the patient and withdraw the King LTS-D until ventilation is easy and free flowing
  9. Readjust cuff inflation to "just seal" volume
  10. Check breath sounds and chest rise and fall
F. Midline insertion
  1. Insertion can be accomplished via a midline approach by applying a chin lift and sliding the distal tip along the palate and into position in the hypopharynx.
  2. Head extension is helpful.

G. Taping
  1. Disconnect the ventilation device
  2. Aggressively tape the King LTS-D in the midline to the maxilla
  3. Avoid taping over gastric access lumen
  4. Reattach the ventilation device

H. Complications
  1. During insertion, if tip is placed or deflected laterally, it may enter the periform fossa and will appear to bounce back upon full insertion and release

I. Removal
  1. Remove the King LTS-D when protective reflexes have returned
  2. Suction as indicated
  3. Deflate cuffs