Indications

1. Failure to place endotracheal tube after two tries.
2. Assessment shows intubation to be risky or problematic.
3. BVM does not provide adequate ventilation.
4. Airway protection from aspiration is not optimal with BVM.

Precautions

1. Insertion should be performed carefully, with head and neck stabilized, when there is a risk for c-spine injuries.
2. Practice in positioning yourself and patient's head. Frequent practice using a mannequin will help with laryngeal tube insertion.
3. There are five sizes of laryngeal tubes, each with a different colored connector, based on patient height:
    a. Size 5 (Purple), over 6 feet
    b. Size 4 (Red), 5-6 feet
    c. Size 3 (Yellow) 4-5 feet
    d. Size 2.5 (Orange) 3'7" to 4'3"
    e. Size 2 (Green) 2'11" to 3'9"
4. The size 2 and 2.5 tubes are single lumen and have no way to evacuate gastric contents. These airways should only be used by advanced providers

Technique

1. BVM the patient to the highest SpO2 possible and check the cuff inflation system on the laryngeal tube for any air leak.
2. Prepare the airway using suction, removing loose dentures, etc, if necessary.
3. Premedicate the patient with lidocaine or fentanyl if head injury is present.
4. Apply chin lift and introduce laryngeal tube into corner of mouth, protecting the c-spine if necessary.
5. Advance the tip of the laryngeal tube under the base of the tongue while rotating the tube toward the midline.
6. Continue to advance to tube until the connector (yellow, red, or purple) is at the teeth and then inflate the cuff system.

7. Each size King Airway must be inflated with a different amount of air:
    a. Size 5 (Purple), 70-90ml
    b. Size 4 (Red), 60-80ml
    c. Size 3 (Yellow) 45-60ml
    d. Size 2.5 (Orange) 30-40ml
    e. Size 2 (Green) 25-35ml
8. Ventilate over the tube and adjust height of connector and air in cuff system based on chest rise and air leak out the mouth.
9. Confirm tube placement by the primary survey: no breath sounds over stomach, good breath sounds over lungs.
10. Place an end tidal CO2 detector between the tube and the resuscitator bag.
11. Confirm tube placement by the secondary survey: ETCO2 should read in the 30 to 40 range with ventilatory support (bagging). If ETCO2 is remains high, the laryngeal tube is not directing O2 to the trachea and needs repositioning (deflate cuff system and reseat tube). If ETCO2 is very low, either the laryngeal tube is in the trachea and must be removed immediately (deflate cuff system and pull out) or the patient has been in cardiac arrest for a prolonged period of time and termination of resuscitative efforts should be considered.
12. Secure tube placement with tape system. Consider using head/neck immobilization techniques to keep laryngeal tube in place during transport.
13. For size 3, 4, and 5: If you are an EMT-B place your thumb over the gastric (stomach) port so that any emesis doesn't get shot out at you. If you are an EMT-I thread a suction catheter into the esophagus through the stomach port and attach it to suction. If you are an EMT-P do the above or intubate the stomach with a gastric tube.
14. If you are an EMT-I or EMT-P you can connect the laryngeal tube to the automatic ventilator.
15. Whenever patient is moved and periodically during transport, reassess tube placement.
16. If ventilating or bagging the patient becomes difficult, check for causes: pneumothorax that is developing into a tension, trachea obstruction from blood or food, tube displacement so air flow is not aligned with the trachea.

Notes

1. The laryngeal tube is much easier to place than a combitube or a laryngeal mask airway (LMA). There is only one port for inflation and assessment of proper placement is not complicated. There is little trauma to the epiglottis and cords so that endotracheal intubation in the hospital is not made more difficult.
2. There is no report of the King LT-D being placed into the trachea. However, with any “blind” passage of a tube behind the tongue, tracheal placement is theoretically possible. Hence the dual lumen King Tube which allows for stomach suction could instead act as a ventilation port should the tube ever go into the trachea.
3. To achieve the best laryngeal position the proper amount of air must be used to inflate the cuff system. Improper pressures may make tube displacement easier. If there is a slow leak in the cuff inflation system, extra amounts of air may be needed. A pressure detector gauge can be used so that the cuff system pressure can be monitored for the optimal pressure of 60 cm H2O.
4. The most common miss-positioning of the laryngeal tube is not advancing it far enough so that the base of connector is at the teeth. The laryngeal tube may just need a little further advancement in order to improve ventilation into the trachea.