LMA®

LMA Supreme®

The innovative, advanced, safe second generation supraglottic airway by Teleflex.

THE LMA SUPREME AIRWAY

USER GUIDE

Teleflex®

LMA Supreme® Airway

LMA SUPREME AIRWAY SIZING GUIDE

RECOMMENDED WEIGHT-BASED GUIDELINES FOR DETERMINING THE APPROPRIATE LMA SUPREME AIRWAY FOR YOUR PATIENT

ITEM NUMBER	MASK SIZE	PATIENT SIZE	MAXIMUM CUFF VOLUME (AIR)*	MAXIMUM SIZE OG TUBE
175010	Size 1	Neonates/Infants up to 5 kg	up to 5 mL	6 French
175015	Size 1½	Infants 5 - 10 kg	up to 8 mL	6 French
175020	Size 2	Children 10 - 20 kg	up to 12 mL	10 French
175025	Size 2½	Children 20 - 30 kg	up to 20 mL	10 French
175030	Size 3	Children 30 - 50 kg	up to 30 mL	14 French
175040	Size 4	Adults 50 - 70 kg	up to 45 mL	14 French
175050	Size 5	Adults 70 - 100 kg	up to 45 mL	14 French

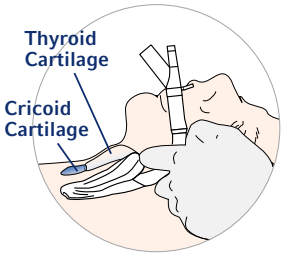
OG = orogastric tube

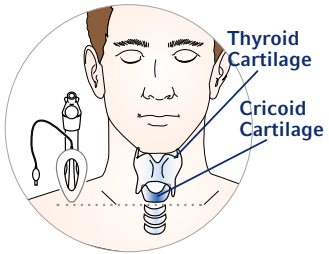
*These are maximum volumes that should never be exceeded. It is recommended the cuff be inflated to 60 cm H_20 intracuff pressure.

ALTERNATIVE SIZING METHODS

PALATAL – CRICOID DISTANCE

Hold the LMA Supreme Airway to the side of the patient's face. With the bite block positioned at the level of the palate, the distal tip of the mask should reach the level of the cricoid cartilage.





ORAL AIRWAY COMPARISON

Size the oral airway according to the traditional sizing method (angle of the jaw to the corner of the mouth). Choose the appropriate size LMA Supreme Airway, based on the following:

80 mm oral airway (#3) = Size 3 LMA Supreme Airway
90 mm oral airway (#4) = Size 4 LMA Supreme Airway
100 mm oral airway (#5)= Size 5 LMA Supreme Airway[1]

1. Evaluation of the LMA Supreme: a sizing and troubleshooting study. Allan J Goldman, MD*, Daniel Langille, CRNA*, Michael Flacco, MD**, Michael Hom, MD**, Roxanne Hertzog, MD** *The University of Washington Medical Center (Seattle, WA), ** Outpatient Anesthesia Services (Seattle, WA) (presented at the 2008 Society for Airway Management Annual Meeting)

LMA Supreme® Airway

LMA SUPREME AIRWAY INSERTION TECHNIQUE

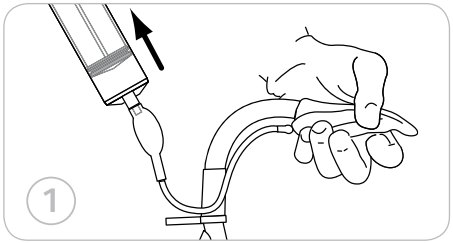


FIGURE 1: Fully deflate the mask for insertion. Attach a syringe. Compress the distal tip of the mask with thumb and index finger. Apply slight tension to the inflation line while removing all air until a vacuum is felt. Disconnect the syringe.

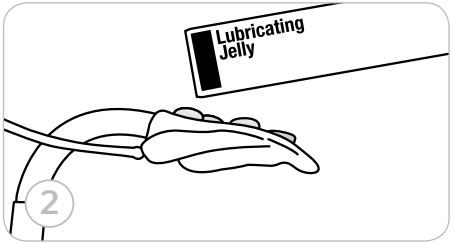


FIGURE 2: Generously lubricate the posterior surface of the cuff and airway tube.

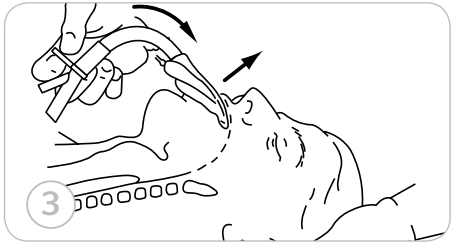


FIGURE 3: Place the patient's head in a neutral or slight "sniffing" position. Hold the LMA Supreme Airway at the proximal end with the connector pointing downward to the chest and the tip of the distal end pointing toward the palate.

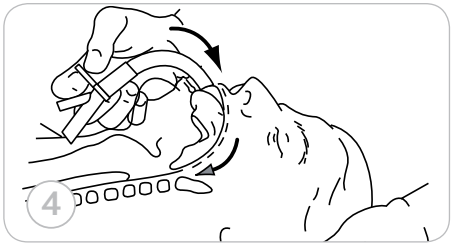


FIGURE 4: Press the tip of the mask against the hard palate. Maintaining pressure against the palate, continue to rotate the mask inwards in a circular motion following the curvature of the hard and soft palate.

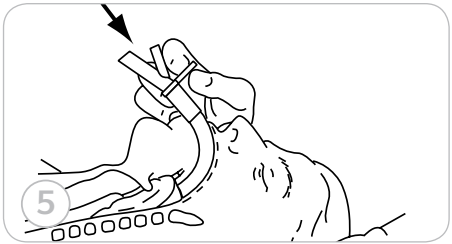


FIGURE 5: Continue until resistance is felt. The distal end of the mask should now be in contact with the upper esophageal sphincter. The device is now fully inserted.

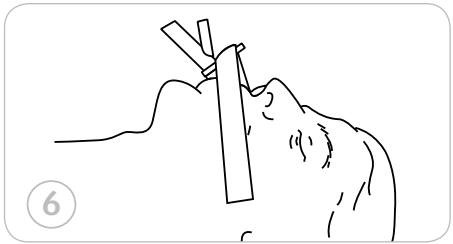


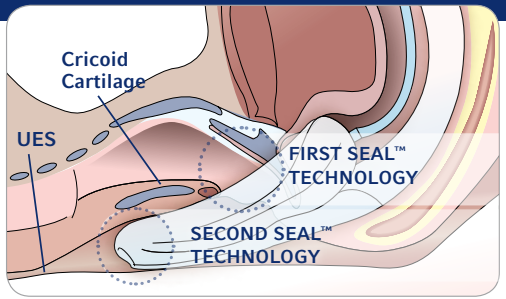
FIGURE 6*: Maintaining inward pressure, secure the mask into position by taping cheek to cheek across the fixation tab. This should be done prior to inflation. Inflate with the minimum amount of air needed to achieve an effective seal. The recommended intracuff pressure should not exceed 60 cm H_2O.

*Alternatively, taping can be done after the esophageal seal is confirmed. Inward pressure should be applied throughout inflation and ventilation, prior to taping in place.

LMA Supreme® Airway

DIAGNOSTIC TESTS

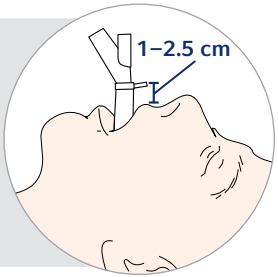
After the LMA Supreme Airway is inserted, secured and inflated, diagnostic tests #1 and #2 should be performed to confirm the complete separation of the respiratory and alimentary tracts, or the LMA Supreme Airway oropharyngeal and esophageal seal, respectively. Diagnostic Test #3 is optional.



DIAGNOSTIC TEST #1: FIXATION TAB TEST

(Recommended to confirm correct size and esophageal seal)

After fixation, the taping tab should be positioned 1 to 2.5 cm from the upper lip. If the taping tab is more than 2.5 cm from the upper lip, this suggests the device may be too big. If the taping tab is less than 1 cm from the lip, this suggests the device may be too small. At no time should the taping tab be in contact with the upper lip. Use clinical judgment to replace a mask that appears too big or small.



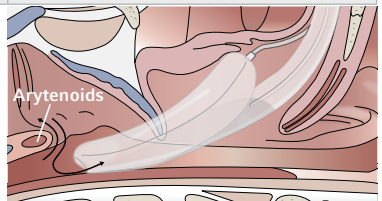
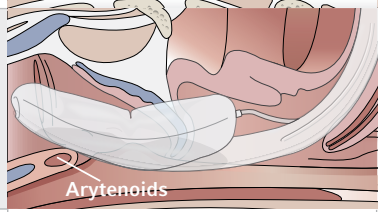
DIAGNOSTIC TEST #2: GEL TEST

(Recommended to confirm correct size and esophageal seal)

Apply ¼ inch of (viscous) water-soluble sterile lubricant to the proximal end of the drain tube and hand ventilate. The gel should remain covered across the top of the drain tube. This indicates that the esophageal seal has been achieved by ensuring the tip of the mask is against the upper esophageal sphincter.

TROUBLESHOOTING

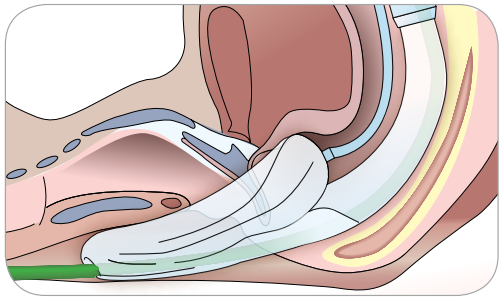
IF AN ADEQUATE SEAL IS NOT ACHIEVED OR AIRWAY OBSTRUCTION DEVELOPS, REFER TO THE FOLLOWING CHART

PROBLEM	CAUSE	TROUBLESHOOTING	
Air leak – Lack of adequate seal.	Not enough air in cuff.	Inflate with more air.	See sizing and inflation guidelines on LMA® Airway Sizing Guide Card.
Gel "blows off" gastric port with hand ventilation.	Insufficient depth. The distal tip of the drain tube is exposed and not properly positioned under the arytenoids. No second seal.	Advance the mask further into place until resistance is felt. Apply the gel again to the proximal end of the drain tube and hand ventilate. The gel should stay in place if the mask tip is posterior to the arytenoids and properly positioned at the upper esophageal sphincter.	
Airway obstruction.	The mask tip has likely entered the glottis.	Remove the mask. Deflate the mask entirely and reinsert the LMA Supreme Airway with the head in the neutral or "partial sniffing" position. A jaw thrust may be an effective technique.	
Continued air leak.	Mask too small.	Inflate with more air.	See sizing and inflation guidelines on LMA Airway Sizing Guide Card.
Can't pass the OG tube	1. Wrong size OG tube	1. See maximum size OG tube information for correct sizing	See sizing and inflation guidelines on LMA Airway Sizing Guide Card.
	2. Insufficient lubrication	2. Apply more water soluble lubricant	
	3. Drain tube occluded by mask tip fold over	3. Perform a supra sternal notch test (SSN) by pressing on the tracheal rings above the sternum. The gel placed at the proximal end of the drain tube should move slightly indicating drain tube patency. No movement of the gel may indicate occlusion of the drain tube due to mask fold over (negative test). In the event of a negative test, remove the LMA Supreme Airway and reinsert. Perform the SSN test again to verify drain tube patency (positive test).	

DIAGNOSTIC TESTS

DIAGNOSTIC TEST #3: OG TUBE PLACEMENT *(OPTIONAL)*

(Inserting an OG tube allows the option to either suction or decompress the stomach. Successful passage of an OG tube is definitive confirmation of drain tube patency and tract separation).



To facilitate gastric decompression and/or drainage, an OG tube can be placed into the drain tube of the LMA Supreme Airway and advanced into the stomach at any time during the procedure. **Refer to the Sizing Guide table for maximum gastric tube sizes.** The gastric tube should be well lubricated and passed slowly and carefully. Suction should not be performed until the gastric tube has reached the stomach. Suction should not be applied directly to the end of the drain tube. It is clinical preference to either remove the OG tube or leave it in place. If left in place, in the unlikely event of active or passive (non-suctioned) regurgitation, the drain tube would lose its patency.

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