



Section 14: Appendix 2: Medical Procedures

SECTION 14: SUPRAGLOTTIC AIRWAY DEVICES

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P	PARAMEDIC	P

INDICATIONS

- Emergent airway management of pulseless and apneic patients, either as a primary or secondary (salvage) airway for adults or pediatrics.

CONTRAINDICATIONS

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

PROCEDURE

1. Hold the Supraglottic Airway at the connector, using the dominant hand.
2. With non-dominant hand, hold mouth open and apply chin lift.
3. Using a lateral approach, introduce device into corner of mouth.
4. Advance 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.
5. Without exerting excessive force, advance tube until base of connector is aligned with teeth or gums.
6. Attach the syringe and inflate the cuffs to the appropriate volume:
 - SIZE 2 = 25-35 ml
 - SIZE 2.5 = 30-40 ml
 - SIZE 3 = 40-55 ml
 - SIZE 4 = 50-70 ml
 - SIZE 5 = 60-80 ml
7. Attach a bag-valve device to the connector. While gently bagging the patient to assess ventilation, gently withdraw the tube until ventilation is easy and free flowing (large tidal volume with minimal airway pressure).
8. Adjust cuff inflation, if necessary, to obtain a seal of the airway.
9. After placement, perform standard checks for breath sounds and utilize an appropriate carbon dioxide detection device, as required by protocol.

REMOVAL OF DEVICE (if indicated):

1. Confirm need for removal of the device.
2. Suction above cuffs in the oral cavity.
3. FULLY deflate both cuffs before removal of the device. (may require multiple attempts of air removal with syringe to fully evacuate air)
4. Remove the device when protective reflexes have returned.



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SECTION 14: SUPRAGLOTTIC AIRWAY DEVICES-Cont.

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KEY POINTS

1. The key to insertion is to get the distal tip of Supraglottic Airway around the corner in the posterior pharynx, under the base of the tongue. Experience has indicated that a lateral approach, in conjunction with a chin lift, facilitates placement of the Supraglottic Airway. Alternatively, a laryngoscope or tongue depressor can be used to lift the tongue anteriorly to allow easy advancement of the Supraglottic Airway into position.
2. Insertion can also 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. In this instance, head extension may also be helpful.
3. As the Supraglottic airway is advanced around the corner in the posterior pharynx, it is important that the tip of the device is maintained at the midline. If the tip is placed or deflected laterally, it may enter the piriform fossa and the tube will appear to bounce back upon full insertion and release. Keeping the tip at the midline assures that the distal tip is placed properly in the hypopharynx / upper esophagus.
4. Depth of insertion is key to providing a patent airway. Ventilatory openings of the Supraglottic Airway must align with the laryngeal inlet for adequate oxygenation / ventilation to occur. Accordingly, the insertion depth should be adjusted to maximize ventilation. Experience has indicated that initially placing the Supraglottic Airway deeper (proximal opening of gastric access lumen aligned with teeth or gums), inflating the cuffs and withdrawing until ventilation is optimized results in the best depth of insertion for the following reasons:
 - It ensures that the distal tip has not been placed laterally in the piriform fossa (see item #3 above).
 - With a deeper initial insertion, only withdrawal of the tube is required to realize a patent airway. A shallow insertion will require deflation of the cuffs to advance the tube deeper.
 - As the Supraglottic Airway is withdrawn, the initial ventilation opening exposed to or aligned with the laryngeal inlet is the proximal opening. Since the proximal opening is closest to and is partially surrounded by the proximal cuff, airway obstruction is less likely, especially when spontaneous ventilation is employed.
 - Withdrawal of the Supraglottic Airway with the balloons inflated results in a retraction of tissue away from the laryngeal inlet, thereby encouraging a patent airway.
5. Ensure that the cuffs are not over-inflated. If a cuff pressure gauge is not available, inflate cuffs with the minimum volume necessary to seal the airway at the peak ventilatory pressure employed. (just seal volume)
6. Removal of the Supraglottic Airway is well tolerated until the return of protective reflexes. For later removal, it may be helpful to remove some air from the cuffs to reduce the stimulus during wake-up.
7. Supraglottic Airway Kit Includes:
 - Supraglottic Airway
 - 60-80 cc Syringe
 - Lubricant
 - Instructions for use

DO NOT GIVE MEDICATIONS DOWN THE SUPRAGLOTTIC AIRWAY

Size	Description	Connector Color	OD	ID*	Gastric Tube Size	Inflation Volume
3	4-5 feet (122-155 cm) in height	Yellow	18 mm	10 mm	≤18 Fr	45-60 ml
4	5-6 feet (155-180 cm) in height	Red	18 mm	10 mm	≤18 Fr	60-80 ml
5	greater than 6 feet (180 cm) in height	Purple	18 mm	10 mm	≤18 Fr	70-90 ml