



PRO: Use of the LMA for Longer Dental Procedures

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Financial Conflict of Interest

- No relevant conflicts of interest

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Absolute Contraindications	Relative Contraindications
Trauma	Major abdominal surgery
Nonfasted patients	Pregnancy >14 weeks
Bowel obstruction	Prone position
Emergency surgery	Airway surgery
Delayed gastric emptying	Laparoscopic surgery
	Obesity, BMI >30
	Decreased lung compliance with PIP >20 cm H ₂ O
	Altered mental status

Schwartz & Peng. The Laryngeal Mask Airway: Expanding Use Beyond Routine Spontaneous Ventilation for Surgery. APSF Newsletter Oct 2021

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Risks of LMA Use: Aspiration

- A survey of laryngeal mask airway (LMA) usage was conducted to provide general information about safety and efficacy with special emphasis on controversial issues such as positive pressure ventilation (PPV), prolonged anesthesia, and laparoscopic and non-laparoscopic intraabdominal surgery.
- During the 2-yr study period, of the 39,824 patients who underwent general anesthesia, 11,910 (29.9%) patient airways were managed with the LMA.
- 1 out of 11, 910 patients in a retrospective review**
- Forty-four percent underwent PPV. Placement was successful in 99.81%, and in 23 patients the LMA was abandoned in favor of the tracheal tube (TT). Use of the LMA for any **intraabdominal procedure** was considered nonconventional and occurred in 2222 (18.7%) patients.
- On 579 occasions procedures **lasted >2 h**. A total of 44 critical incidents were documented. Eighteen (0.15%) were related to the airway and none required intensive care management. There were 26 critical incidents not related to the airway which resulted in two admissions to the intensive care unit and one death.
- Use of the LMA for gynecologic laparoscopy, gynecologic laparotomy, and procedures >2 h also appears safe.

Vergheze & Brimacombe. Anesth Analg 1996;82:129-33

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Risks of LMA Use: Aspiration

- Risk of pulmonary aspiration in patients whose lungs were mechanically ventilated through a laryngeal mask airway (**35,630 procedures**) or tracheal tube (30,082 procedures).
- 3 cases** of pulmonary aspiration occurred with the laryngeal mask airway and **7 cases** with the tracheal tube.
- There were no deaths related to pulmonary aspiration
- The **adjusted odds ratio (OR)** for pulmonary aspiration with the laryngeal mask airway was **1.06** (95% CI 0.20-5.62).
- There were contraindications and exclusions to the use of the laryngeal mask airway but in this selected population the use of a laryngeal mask airway was not associated with an increased risk of pulmonary aspiration compared with a tracheal tube.

Bernardini A, Natalini G. Risk of pulmonary aspiration with laryngeal mask airway and tracheal tube: Analysis on 65 712 procedures with positive pressure ventilation. Anesthesiology. 2009;64:1289-1294.

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Risks of LMA Use: Aspiration

- Meta-analysis of 1433 patients from 17 studies for laparoscopic surgery
- The incidence of desaturation (RR 3.65, 95% CI 1.39-9.62), gastric insufflations (RR 0.90, 95% CI 0.48-1.71), regurgitation (RR 0.98, 95% CI 0.02-49.13), and **aspiration** (RR 0.99, 95% CI 0.01-78.4) also showed no intergroup differences.
- However, the incidence of laryngospasm (RR 3.12, 95% CI 1.29-7.52), cough at removal (RR 6.68, 95% CI 4.70-9.48), dysphagia (RR 1.47, 95% CI 1.12-1.95) or dysphonia (RR 4.41, 95% CI 1.25-15.55), sore throat (RR 1.60, 95% CI 1.33-1.93), and hoarseness (RR 1.53, 95% CI 1.29-1.81) was higher in the ETT group than in the SGA group.

Park SK, Lu G, Choi GJ, Ahn IJ, Kang H. Comparison between supraglottic airway devices and endotracheal tubes in patients undergoing laparoscopic surgery: A systematic review and meta-analysis. Medicine (Baltimore). 2016 Aug;95(33):e11586.

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CLINICAL CONTROVERSIES IN ORAL AND MAXILLOFACIAL SURGERY: PART ONE

The Laryngeal Mask Airway for General Anesthesia: The Case for Its Use

David Fould, 2002, 2027

Our Technique

introduces about 1cm of the eyelid reflex, the eye is raised

- 1800 cases with LMA
- No failures
- Avoided use in obese, GERD, or aspiration risk
- Relatively short procedures (40 minutes)
- Perceived decrease in bucking, sore throat, N/V and faster discharge times
- No laryngospasm, bronchospasm, vomiting or aspiration

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Figure 1.

A, LMA Retaining LMA-PROP Device.
B, LMA Secured in LMA-PROP Device. The LMA is placed into the LMA-PROP by separating the two sides of the retaining area. The silicone nature of the material, non-slippery as well as its snug fit ensure that the LMA does not move or dislodge from the LMA-PROP.

Overall Evaluation of the Laryngeal Mask Airway Propriety for Oral Surgery

Wang, Ranjoo, Duggan, Ravinder, Tucker, Blake, Votta, Tsang, Chahal, Prabhakar, Ramakrish, Robert, Howard, Christopher

Anesthesia & Analgesia 20(1):18-20, June 2017.

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Figure 2.

LMA-PROP in the patient's mouth. LMA-PROP and laryngeal mask airway (LMA) in the patient's mouth. LMA is kept to the left side of the mouth, allowing the surgeon good access to the teeth on the right side.

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	Median Score	Range
Overall evaluation by surgeon	8.5	3-10
Ease of placement of LMA-PROP	9	6-10
Ease of removal of LMA-PROP	9.5	7-10
Ease of securing LMA	8	1-9
Flow of surgery	8.5	1-9
Movement of LMA	9	5-10
Overall evaluation by anesthesiologist	8	7-10
Ease of LMA placement	9.5	6-10
Movement of LMA	8	5-10
Ability to secure LMA	8	5-9

The LMA-PROP was evaluated by a single oral surgeon and 1 of 3 attending anesthesiologists using the device. All are median scores with a scale ranging from 1 to 10, 10 being the best performance for each category.

Abbreviation: LMA, laryngeal mask airway.

ANESTHESIA & ANALGESIA

Wang, Ranjoo, Duggan, Ravinder, Tucker, Blake, Votta, Tsang, Chahal, Prabhakar, Ramakrish, Robert, Howard, Christopher

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Nasal LMA

- Easier to insert than ETT?
- Less risk of epistaxis?
- Avoids complications of nasal ETT insertion

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1. Epistaxis
2. Avulsion of turbinate
3. Obstruction of endotracheal tube lumen
4. Intracranial placement of endotracheal tube
5. Retropharyngeal dissection
6. Autonomic response to nasal intubation
7. Post intubation nasal pain

Genesys Airways Innovations Pty Ltd.

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LETTERS TO THE EDITOR

The Flexible Laryngeal Mask as a Nasal Airway

Marchionni, L. MD; Agno, F. MD; Favaro, R. MD; Verghese, C. FRCA; Brimacombe, J. MD, FRCA
 Author information@

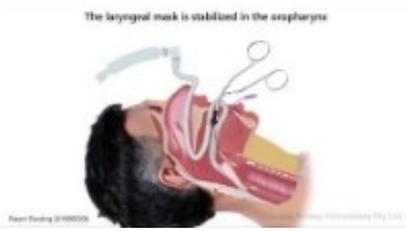
Anesthesia & Analgesia 117(6):1176, November 1992.

- The fifth patient was a mentally retarded adult presenting for dental clearance who had micrognathia and was a Mallampati Grade 4.
- It was felt that nasal intubation was essential for surgery. The patient was therefore sedated with thiopentone 2 mg/kg, and the FLMA was placed while the patient breathed spontaneously.
- Anesthesia was induced with isoflurane once the airway was secure. The time taken to convert from the oral to nasal airway was 20-70 s, and there were no problems with airway management during the 30- to 190-min procedures.
- Returning the FLMA tube to the oral cavity at the end of the procedure took 10-40 s.

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The laryngeal mask is stabilized in the oropharynx



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