Dr. Bassim Mohammed **Dr. Hawraa Diaa**
B.M.T. Montadher Talib

Anesthesia for ENT

(Practical Anesthesia)

3ed stage

By:

Dr. Bassim Mohammed **Dr. Hawraa Diaa**

B.M.T. Montadher Talib

Anesthesia for ear, nose and throat surgery

Airway problems are the major concern in ENT surgery, related to both the underlying clinical problem and the shared airway.

Presenting pathology may:

- Produce airway obstruction
- Make access difficult or impossible.

Surgeons working in, or close to, the airway can:

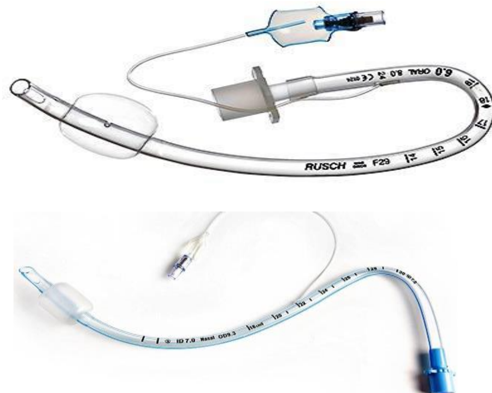
- Displace, obstruct, or damage airway equipment
- Obscure the anesthetist's view of the patient
- Limit access for the anesthetist during operation
- Produce bleeding into the airway (intra- and post-operatively).

The surgeon and anesthetist should plan together to use techniques/ equipment that provide good conditions for surgery, while maintaining a safe, secure airway.

Airway/ventilation management

1- Tracheal tube or laryngeal mask airway

- Preformed RAE tubes provide excellent protection into the surgical field.
- An oral (south-facing) RAE tube is used for nasal and oral surgery, although a nasal tube (north-facing) allows better surgical access to the oral cavity.
- An LMA or equivalent supra-glottis airway, usually of the reinforced flexible type, is the alternative approach.



Spontaneous ventilation or intermittent positive pressure ventilation

- Continuous neuro muscular blocker is not required for most ENT surgery.
- Many ENT anesthetists still favor SV, regarding movement of the reservoir bag as a valuable sign of airway integrity.
- If SV is used via an ETT, mivacurium is preferable for intubation.
- IPPV enables faster recovery and return of airway reflexes.

Many ENT procedures create bleeding into the airway. Suction (and pack removal) under direct vision before extubation is essential in such cases.

Deep extubation is best suited to SV.

- At the end of surgery, continue the volatile agent concentration, but change gases to 100% O2 (to increase the FRC store).
- careful suction, insert a Guedel airway
- turn the patient left lateral/head-down (tonsil position)
- check respiration is regular then extubate.

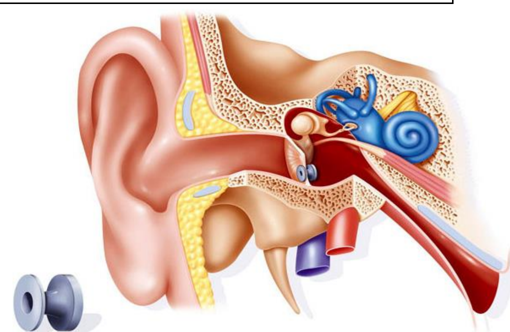
Light extubation is best suited to IPPV.
After careful suctioning, any residual NMB is reversed, inhalational agents discontinued, and the trachea **extubated after laryngeal reflexes have returned**. Light extubation is recommended in all patients with a difficult airway or significant respiratory compromise.

Throat packs
A throat pack (wet gauze) is often used around the ETT/ LMA to absorb blood. The pack must be removed before extubation.

Grommet insertion

Procedure	Myringotomy and grommet insertion, usually bilateral
Time	5–15min
Pain	+
Position	Supine, head tilted to side, head ring
Blood loss	Nil
Practical techniques	Face mask or LMA SV using T-piece or paediatric circle

Preoperative
♣ Usually children (1–8yr), normally day case, ♣ Repeated ear infections; check for recent upper respiratory tract infection URTI, ♣ Paracetamol/NSAID orally.

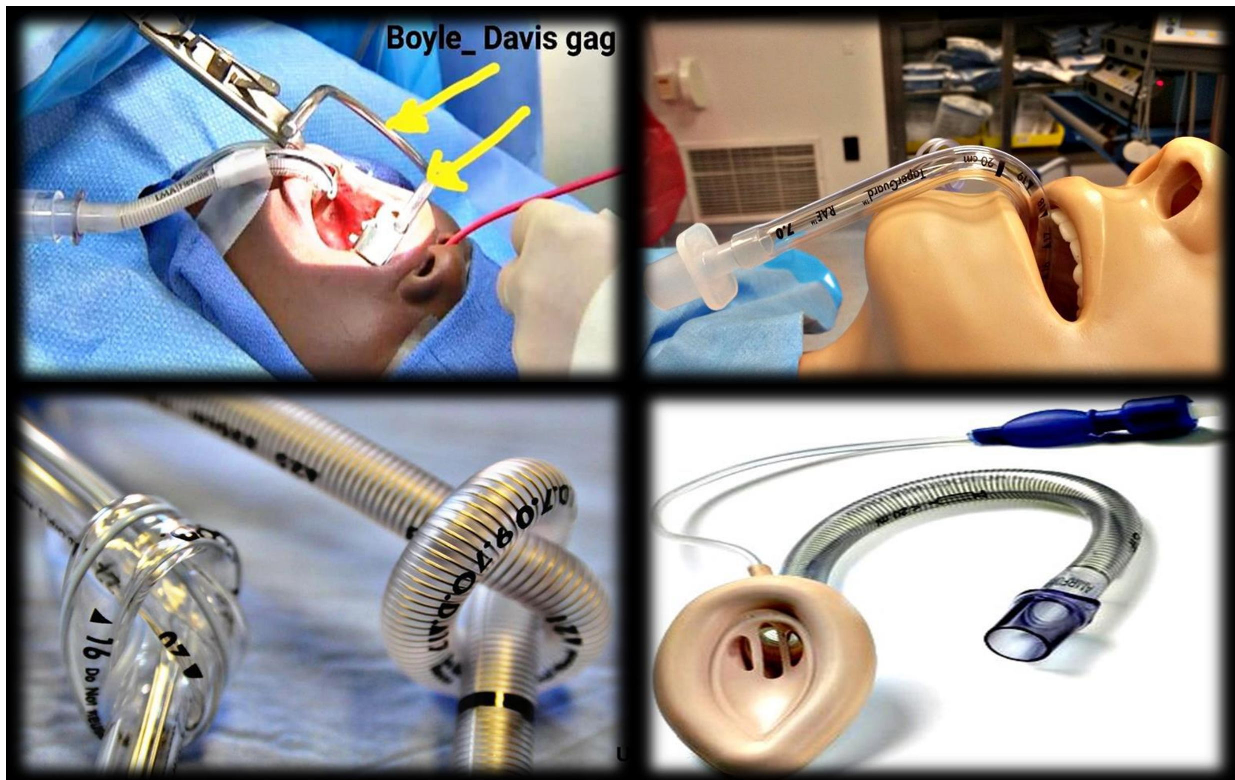


Perioperative
• LMA commonly used.
• Face mask suitable if surgeon happy to work round it, but assistant needed to adjust vaporizer, etc. Insert Guedel airway before draping.

Post-operative
• Need for additional analgesia unlikely.

Tonsillectomy/adenoidectomy: child

Procedure	Excision of lymphoid tissue from oropharynx (tonsils) nasopharynx (adenoids)
Time	20–30min
Pain	+++
Position	Supine, pad under shoulders
Blood loss	Usually small, can bleed post-op
Practical techniques	South-facing uncuffed RAE tube or reinforced LMA, placed in groove of split blade of Boyle–Davis gag; SV or IPPV.



Preoperative

♣ Careful history to exclude Obstructive Sleep Apnea or active infection.
♣ Paracetamol/NSAID PO.
♣ Consent for analgesia if to be used.

Perioperative

• IV or inhalational induction—Guedel airway useful if nasopharynx blocked by large adenoids.
• Intubate (uncuffed RAE) using *relaxant or *deep inhalational anesthesia, or *insert LMA using propofol/opioid or deep inhalational anesthesia.
• Secure in midline, no pack (obscures surgical field).
• Beware surgeon displacing/obstructing tube intraoperatively, particularly after insertion or opening of Boyle–Davis gag.

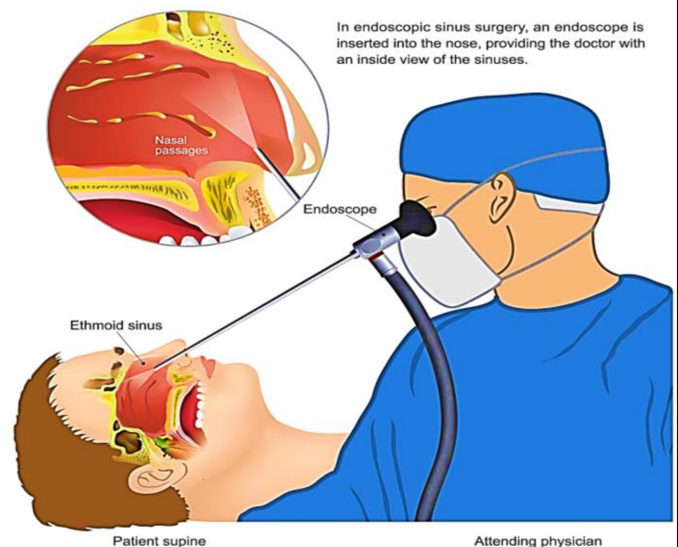
• Reliable IV access essential, though IV fluids not routine.
• Antiemetic: at least one recommended—dexamethasone or ondansetron.
• Careful suction of oropharynx and nasopharynx at end under direct vision.
• Extubate left lateral/head-down (tonsil position), with Guedel airway.

Post-operative
• Keep patient in tonsil position until airway reflexes return.
• Analgesia with IV morphine/fentanyl initially, then oral paracetamol/ NSAID/morphine.

Tonsillectomy in adults
As for child, except: Usually more painful post-operatively in adult—give morphine in theatre. IPPV–relaxant technique used more commonly. Mivacurium useful with quick surgeon.

Nasal cavity surgery

Procedure	Submucous resection of septum, septoplasty, turbinectomy, polypectomy, functional endoscopic sinus surgery
Time	20–60min
Pain	++
Position	Supine, head ring, head-up tilt
Blood loss	Usually minor
Practical techniques	South-facing RAE tube or LMA (usually reinforced); SV or IPPV. Throat pack



Preoperative
- Obstructive airways disease often associated with nasal polyps.

Perioperative
- Face mask ventilation often needs Guedel airway due to blocked nose.
- Nasal vasoconstrictor usually applied (topical or infiltration).
- Leave eyes untapped (the optic nerve can be close, and the surgeon needs to check for eye movement).

Post-operative
- Left lateral/head-down with Guedel airway in place until airway reflexes return
- Analgesia with paracetamol or NSAID PO/IV.
- Nose usually packed, producing obstruction of nasal airway if disturbing to patient can be incorporated into the pack.
- Sit patient up as soon as awake to reduce bleeding.