

HIGH FLOW NASAL OXYGEN

Before starting: ensure no contraindications to using HFNO

Anesthesia use ONLY

Indications

- 1. Optimization of pre-oxygenation**
 - prior to induction of general anesthesia
- 2. The **anticipated** difficult airway**
 - as an adjunct to maintain oxygenation during intubation
 - including awake fiberoptic intubation
- 3. Extubation planning:**
 - to reduce risk of immediate respiratory complication

Preparation & Set-up

Attach nasal cannula: use standard nasal cannula with **a screw mount**

Ensure APL valve is open & DO NOT apply positive pressure ventilation

Recommended flow rates:

- 10L/min while patient is **awake**
- 10-40L/min while patient has **moderate sedation**
- 40-70L/min while patient is **under GA**



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HIGH FLOW NASAL OXYGEN

Pre-oxygenation & Induction of GA

Before Induction:

Ensure APL valve is **open** & apply nasal cannula. Begin flow at 10L/min

Asleep intubation (DL, VL or FOI):

- Preoxygenate: facemask securely over patient's nose & mouth, with HFNO nasal cannula in place
- After Induction of anesthesia, set flows up to 40L/min and **do not use positive pressure ventilation**
- Maintain during laryngoscopy
- Perform intubation and confirm placement of ETT

Awake Fiberoptic Intubation

- Topicalize as usual
- HFNO via nasal cannula at 10L/min
- Sedation/analgesia, as indicated
- Increase flow rate (max 40L/min), **as tolerated by patient**
- Perform awake FOI and confirm placement of ETT

Immediately after intubation

Turn off HFNO, consider leaving cannula in place (for peri-extubation use)

Extubation

During emergence:

- restart flows through nasal cannula, max 40L/min

During extubation:

- Keep high flows running

After extubation:

- Wean down flows as able.
- APL valve stays open and no positive pressure ventilation with HFNO

Before transferring from OR:

- Wean down flow
- Assess airway patency

Transferring to PACU:

- Max O₂ transport cylinders: 25L/min
- Ensure enough O₂ is in the cylinder