

NuMask Combined Product Training Presentation

NuMask IntraOral Mask (IOM®) & Oropharyngeal Airway (OPA) Training Presentation

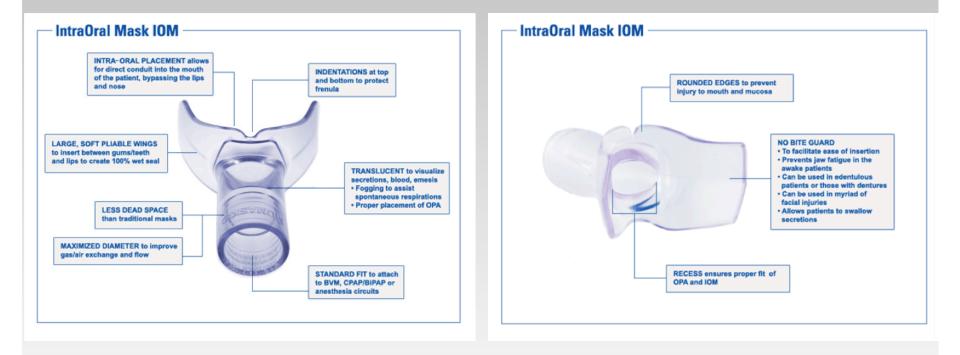


NuMask IOM®/OPA Kit

The kit contains both the IOM and the OPA. The kit size (large or medium) is determined by the OPA size.

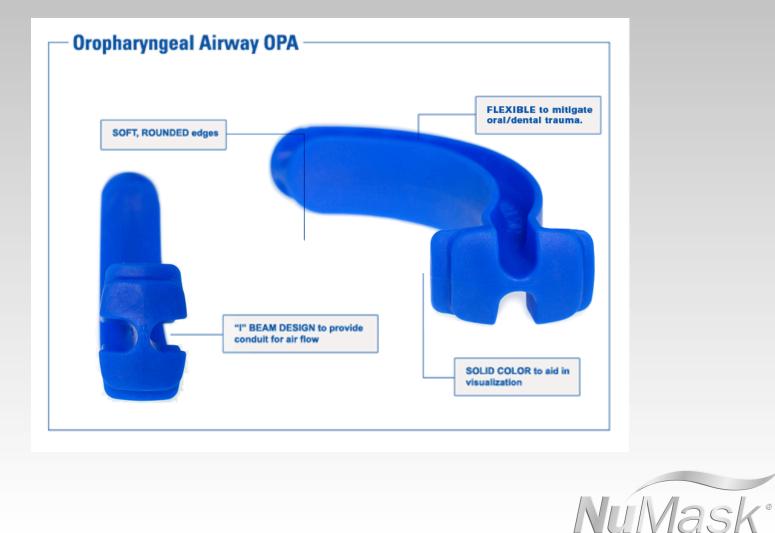


NuMask IntraOral Mask (IOM)



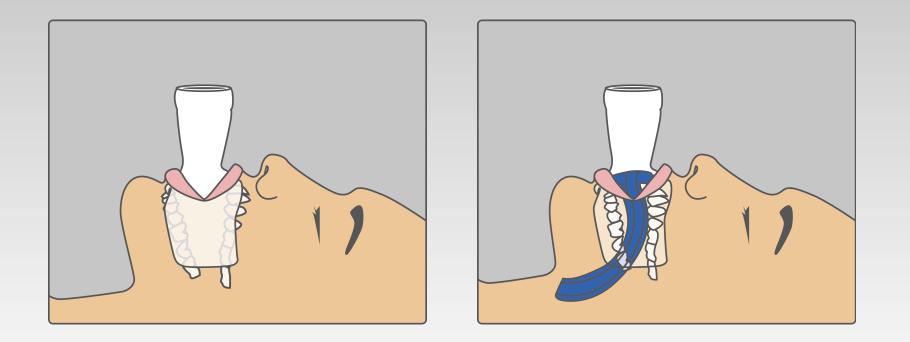


NuMask Oropharyngeal Airway (OPA)



NuMask IOM & OPA

The IOM is placed in the mouth, behind the lips, but in front of the teeth.





Patient Selection and Indications for Use

Respiratory Arrest Cardiac Arrest

Respiratory Failure

- CHF (congestive heart failure)
- ARDS (acute respiratory distress syndrome)
- Non cardiogenic pulmonary edema
- Asthma
- COPD (chronic obstructive pulmonary disease)
- Pneumonia
- Aspiration
- Pulmonary Embolism

Altered Mental Status

- CVA (cerebral vascular accident)
- ICH (intracerebral hemorrhage)
- Sepsis
- Narcotic/sedative overdose
- Intoxicant overdose
- CO poisoning

Trauma

- Shock
- Leforte fractures
- Pneumothorax
- Hemothorax

Other Indications

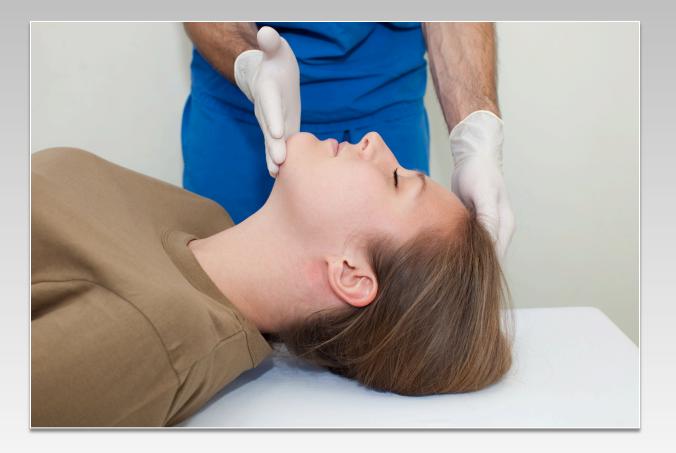
- Conscious sedation
- Anesthetic induction
- Mask assisted OR cases
 - Preoxygenation for emergent or elective endotracheal intubation or placement of an LMA type device
 - Therapeutic induced hyperventilation



Contraindications

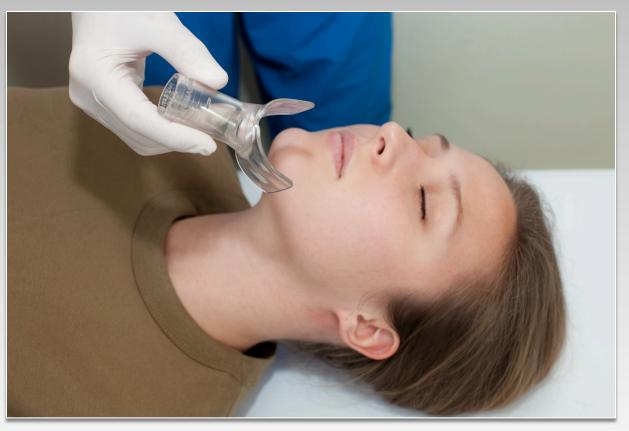
- Do not use or attempt to use in an actively vomiting patient.
- Do not use in patients with known allergies to PVC and non-latex rubber.
- Do not use in pre-adolescent children.
- Do not use in patients who have loose or missing teeth/dental prostheses without first stabilizing or removing them to prevent potential aspiration.
- Do not use in patients with airway foreign bodies until such foreign bodies are removed.
- Do not use the OPA in patients with an intact gag reflex.
- Do not use the OPA in edentulous patients who do not have a significant alveolar ridge.





Patient Positioning – Head Tilt / Chin Lift





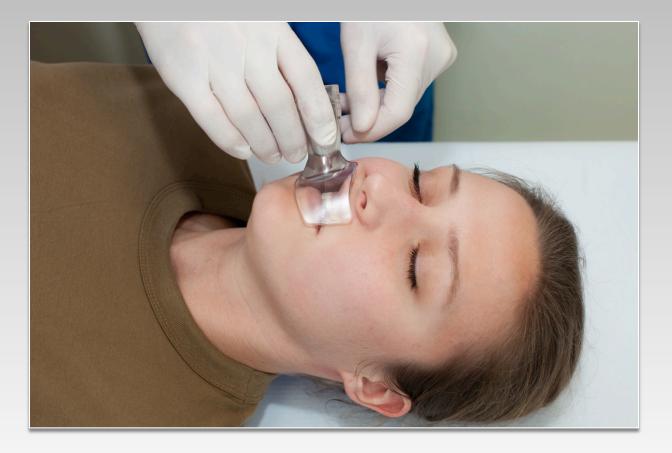
IOM orientation – logo up in most patients (invert if severe underbite) Dentures, if securely, should be left in place





Elevate lateral edge of the lips and slide in one side of the IOM under the lips but in front of the teeth





Initial side of IOM inserted and pushed laterally





Finger sweep to insert remainder of IOM *Caution: Do not put fingers in the mouth of combative, uncooperative or actively seizing patients*

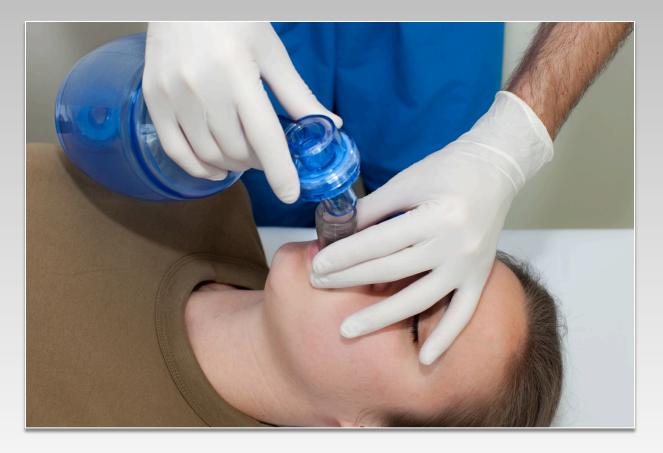
Alternative – grasp lips from external surface





- Manipulation of IOM to improve seat (gently slide side- to-side / up and down)
- Take care with OPA if it is present





Hold IOM stem while bracing hand on patient's face and attaching resuscitator bag.



- The OPA should be used if airway obstruction is still evident despite proper head and neck positioning, i.e. "head tilt / chin lift" (if not contraindicated due to trauma, etc.).
- With proper positioning, the great majority of patients should not require OPA use.



Trimming the OPA to size

The OPA is sized by placing it against the patient's cheek and measuring from the front of the teeth to the angle of the mandible. There are multiple sizes of the OPA available. If the size you have selected does not fit, then trim to size.







Standard OPA insertion (insert and invert)





OPA tabs sit in front of the teeth





The IOM is inserted as previously described Take care not to displace OPA





- IOM/OPA in correct position
- Visually confirm OPA position prior to start of ventilation



Standard Hand Grip "Modified CE" (provider at head of patient)

- Lay the hand flat onto the face with the stem of the IOM and patient's nose positioned between the thumb and index finger. Then wrap the rest of the hand and fingers around the jaw. These fingers may be used to provide jaw thrust.
- Gently squeeze the lips and mouth around the stem while applying gentle, symmetric, downward pressure to obtain seal.
- The nose is pinched between the base of the thumb and index finger as pictured.





Standard Hand Grip "Modified CE" (provider at head of patient)





Standard Hand Grip "Modified CE" (provider at head of patient)





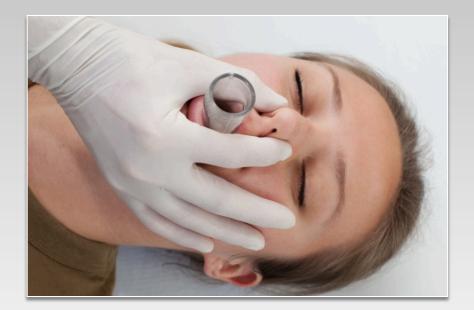
Advanced Grips

The following grips allow easy ventilation for providers with small hands or from a lateral position to the patient.



Advanced Grip (provider lateral to patient)

This grip is performed by cradling the patient's chin with the palm, applying light pressure over the lips, and pinching off the nose with the thumb and index finger. The 5th finger can be placed under the jaw line for greater control.



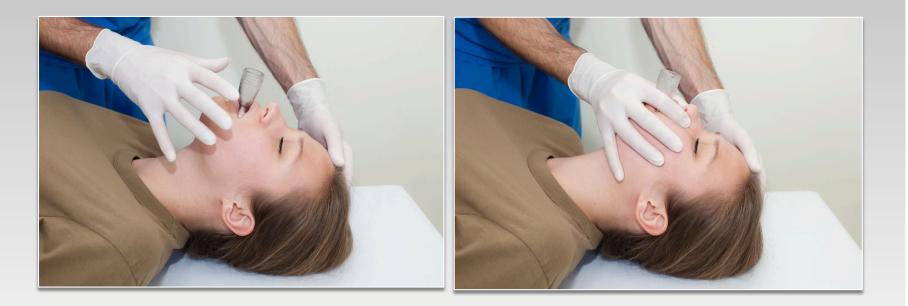


Advanced Grip (provider lateral to patient)





Advanced Grip (provider lateral to patient)



The action consists of pulling tissue from lips and face into the mask, rather than applying downward pressure.



Advanced Grip – small hands (provider at Head of Bed – HOB)

For providers with small hands, the stem of the IOM is placed between the ring and the middle finger or index and middle finger (depending on the size of the patient's face and the provider's hand). The nose is pinched between the thumb and side of index finger.





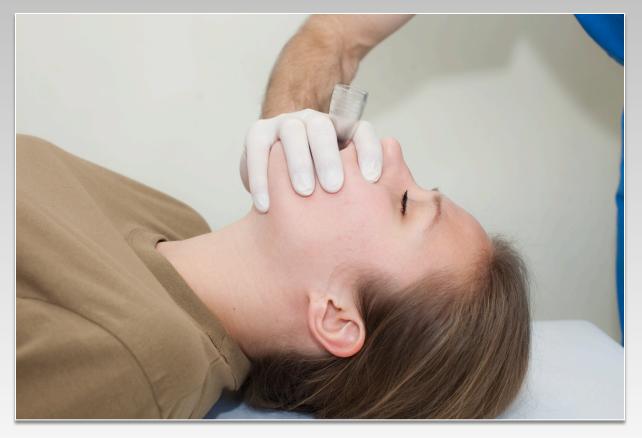
Advanced Grip – small hands (provider at Head of Bed – HOB)



Again, the action is more pulling tissue from lips and face into the mask, rather than applying downward pressure.



Hand Grip (provider at Head of Bed – HOB)



The 5th digit may be used to provide additional jaw thrust/control. This is particularly important if the patient's face is slippery from emesis/oil.



Hand Grips

- All the hand grips allow for a great amount of control over the patient's head and neck position.
- Take advantage of this to achieve proper "head tilt / chin lift" positioning.



When using a hand grip, what do I do if the seal at the lips is leaking?

If the seal is leaking, relax your grip slightly by opening your hand.
 Then reapply the grip while pulling in a larger amount of the patient's lips and cheeks towards the mask. This may require closing the mouth a little if it's open too wide. This action increases the amount of tissue applied against the IOM flanges and stem to increase the sealing capability. The solution is not necessarily to increase the pressure applied.



What do I do if my hand grip is slipping?

If the patient's face is slippery due to emesis/oil, use the finger/fingers under the jaw line to help anchor the grip, and apply a small amount of additional downward pressure over the lips and nose.



Are there different IOM sizes?

 No, the IOM will comfortably accommodate all adults, and children as young as age seven. The OPA comes in both Large and Medium. The Large should accommodate most adults. A smaller pediatric/newborn size IOM and OPA is in development.



Do I need to use the OPA with every patient?

No, the OPA is necessary if the patient's airway cannot be maintained with head extension and chin lift. Jaw thrust can be tried as well, but will often require a second provider. The OPA is inserted first, followed by the IOM as described above.



Can I use other OPAs?

 No, the intraoral placement of the IOM precludes proper placement of other OPAs. An IOM-compatible NuMask OPA is supplied with each kit, except for the basic one-way-valve CPR kit.

How is the OPA inserted?

The OPA is inserted in one of the two standard methods. A tongue blade may be used or the OPA is inserted in an inverted manner and then rotated 180 degrees. As with all OPAs make sure the tongue is not pushed back, potentially causing an obstruction.



Will the OPA fall back into the throat?

The proximal end of the OPA will reside in front of the teeth. Due to the flexible nature of the OPA, there is a tendency for it to spring out of the mouth. This decreases the likelihood of its lodging in the throat. Proper airway management requires accurate placement of the OPA/IOM, just as with all other medical equipment.



How do I detect secretions, emesis, or blood when using the IOM?

The IOM is transparent with a highly polished finish at the base of the stem to allow for easy visualization of the OPA and any secretions or bodily fluids. It should be promptly removed if there is any risk of aspiration.



What do I do if the patient vomits?

Remove the IOM, suction/clear emesis from the airway, wipe emesis from the patient's face, then replace the IOM and resume ventilation.
 If the face is slippery due to emesis, use the finger/fingers under the jaw line to help anchor the grip, and apply a small amount of additional downward pressure to the lips and nose.



Do I need to be at the head of the patient to ventilate with the IOM?

 No, the previously mentioned grips allow ventilation in multiple provider and patient positions, including: lateral, upright, and prone (as may be necessary during rescues, evacuations, transports, and OR cases).
 Allowing a provider to be positioned at the side of the patient provides more room for advanced airway management to be concurrently implemented at the head of the patient.





Does it require two providers to ventilate with the IOM?

No, due to the leak-free seal with a one-handed grip, a single provider should be able to ventilate and seal with ease. However, if jaw thrust is required, a second person may be required.



Can I use the IOM and OPA in patients with no teeth or dentures?

 Yes, the IOM can still be used as effectively as in victims with teeth. The seal may be enhanced by pulling back gently on the IOM while applying the grip.

Can the IOM and OPA be used in those with dentures?

 Yes, it is best to leave them in place if they are securely affixed, and the IOM and OPA can be inserted as usual. If dentures are loose, they should be removed first.



What do I do with those patients who have little or no alveolar ridge?

If there is no significant alveolar ridge, the OPA should not be used, as there may be an increased risk of its sliding out of position. The IOM, however, can still be used. Pull back gently on the IOM while applying the grip to enhance the seal.



Do I ventilate the patient the same way I did before NuMask was invented?

Yes, but due to the increased seal, there is no need to try and overcome leaks inherent in the older mask styles. This is a very important issue. Avoid rapid harsh ventilations, which can overcome the esophageal opening pressures and lead to gastric distention. Instead, focus on smooth, rhythmic ventilation – which is crucial for optimal results.



Can the IOM be used in lieu of intubation?

The IOM is not a definitive airway device and is not designed to replace the ETT when a secured definitive airway is indicated. There are circumstances where the IOM can be used for extended periods. As always, the patient must be appropriately monitored and ventilated. To avoid gastric insufflation and provide appropriate ventilation, attention must be paid to proper bagging technique.



Can the IOM and OPA cause any injuries, and if so, what should I do?

Both the IOM and OPA are made of soft, pliable material without sharp edges but care must still be used with insertion and use. If injuries occur they must be reported via your institutional mechanism to our QI/QC department.



Can the IOM be used in the OR?

Yes, the IOM is compatible with all standard respiratory fittings.

Can the IOM be used with CPAP/BiPAP?

 Yes, with a NuMask Retention Shield, the IOM can be used with CPAP/BiPAP.

Will the IOM fit those with underbites?

Yes, the IOM can accommodate patients with marked underbites by inverting the mask prior to insertion.



Can I use the CPR IOM on a child or infant victim?

Yes, the CPR IOM rests on the outside of the victim's lips with the victim's mouth open and the standard CPR grip is applied.



Can the IOM be used in patients with latex allergies?

Yes, the product line does not contain latex.

Are the IOM and OPA reusable?

No, the IOM and OPA are one-time use disposable devices. They need to be properly disposed of after use or after being opened. The materials are NOT designed to tolerate an autoclave or chemical sterilization.



Contact Information

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