**Nasopharyngeal Airway (NPA)**

**Purpose**

This device assists in creating additional space in the nasopharynx for airflow in a patient with an intact gag reflex.

**Indications**

1. Spontaneously, but ineffectively, breathing patient
2. When sonorous respirations can be heard

**Contraindications**

1. Patients with severe trauma to the head and/or face

**Procedure**

1. Select the properly sized airway adjunct
   a. Measure from tip of the patient’s earlobe to the tip of their nose for the proper length
   b. After selecting adjuncts of the appropriate length, further select the largest one that will fit into the patient’s naris. The diameter of the little finger can be used to approximate the correct size.
2. Lubricate the airway adjunct copiously
3. Place patient’s head in a neutral position
4. Insert the airway adjunct into the right naris
   a. Gently pull pack the tip of the patient’s nose
   b. Insert the airway adjunct, bevel towards the nasal septum following the natural curvature of the nasal passage
   c. Continue advancing adjunct until flange rests against nasal opening
   d. If an obstruction/resistance is felt, do not force airway. Remove and attempt insertion into left naris.
5. Monitor and document
Oropharyngeal Airway (OPA)

Purpose

This device assists in opening the oropharynx of an unresponsive patient without a gag reflex to better facilitate ventilation.

Indications

1. Spontaneously, but ineffectively, breathing patient, without an intact gag reflex
2. Respiratory Arrest
3. To assist in Manual Ventilation while preparing or considering advanced airways

Contraindications

1. Intact gag reflex
2. Foreign body airway obstruction

Procedure

1. Select the properly sized airway adjunct
   a. Measure from center of the mouth to the angle of the jaw OR
   b. Measure from the corner of the mouth to the earlobe
   c. Match the appropriately sized device to those measurements
2. Open the mouth, consider the “crossed or scissors” finger technique
3. Insert the OPA
   a. Hold OPA upside down and insert it so the tip of the OPA is facing the roof of the patient’s mouth
   b. As it is inserted, rotated it 180 degrees, pushing tongue up and out of the way
   c. Continue to turn and insert until flange is seated at patient’s lips/teeth
4. Consider and be vigilant of oral trauma caused by insertion
5. If patient shows any signs of gagging or retching, REMOVE OPA IMMEDIATELY and prepare to suction
6. Continue to oxygenate patient via Manual Ventilation
7. Monitor and document
Manual Ventilation

Purpose

Manual ventilation or bag-valve-mask (BVM) ventilation is to supplement inadequate spontaneously breathing patients or to supply artificial ventilation to a respiratory arrest patient. This basic airway management technique allows for oxygenation and ventilation of patients until a more definitive airway can be established and in cases where endotracheal intubation or other definitive control of the airway is not possible. In the pediatric population, BVM may be the best option for prehospital airway support.

Indications

4. Spontaneously, but ineffectively, breathing patient:
   *For this patient population consider the use of the CPAP or Medicated Assisted Airway Guidelines*
   a. Decreased respiratory rate
   b. Hypercapnia
   c. Low tidal volumes
   d. Cyanosis

5. Respiratory Arrest

Special Considerations

1. BVM ventilation requires a good seal and a patent airway. Basic airway adjuncts such as the oral and nasal airways can aid with ventilation by relieving physiologic obstruction and by opening up the hypopharynx.

2. Special attention should be paid to the patient so as not to cause hyperventilation. Use of Capnography and Pulse Oximetry are strongly encouraged in these patients and the use of an Impedance Threshold Device should be considered in a patient of Cardiopulmonary Arrest.

Procedure

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<td>1.</td>
<td>Open airway. Head-tilt chin-lift or jaw-thrust where appropriate.</td>
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<td>2.</td>
<td>Place BVM over patient’s face and obtain a good seal.</td>
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<td>a. Two-providers may be needed to obtain seal, one to hold mask, one to compress reservoir bag.</td>
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<td>b. Special attention and effort will be required in those patient’s with dentures, facial hair as well as extremes of weight.</td>
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<td>3.</td>
<td>Ventilate the patient at:</td>
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<td>a. Adult: 12 breaths/min</td>
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<td>b. Child: 20 breaths/min</td>
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<td>c. Infant: 30 breaths/min</td>
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4. Use tidal volume of 6cc/kg of Ideal Body Weight, not to exceed 750 cc. See chart to right.

5. Consider the use of the PEEP valve, starting at 5 mm H2O. (See illustration above)

6. Consider the use of an airway adjunct (oral or nasal airway) to assist in ventilations.

7. Attach ETCO2 monitor to BVM

8. Consider utilizing advanced airway management guidelines.

### Height | Weight
---|---
4' 10” | 52 kg
4' 11” | 54 kg
5' | 56 kg
5' 1” | 58 kg
5' 2” | 60 kg
5' 3” | 61 kg
5' 4” | 64 kg
5' 5” | 65 kg
5' 6” | 67 kg
5' 7” | 69 kg
5' 8” | 72 kg
5' 9” | 74 kg
5' 10” | 76 kg
5' 11” | 78 kg
6’ | 80 kg
6’ 1” | 83 kg
6’ 2” | 84 kg
6’ 3” | 87 kg
6’ 4” | 89 kg

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**PEEP Valve.**
Placement: Circle piece attached between top of mask and bottom of AMBUbag. PEEP adjustment on left of device above as a rotating knob.