# Pediatric Failed Airway

Unable to Ventilate and Oxygenate ≥ 90% during
or after one (1) or more unsuccessful intubation attempts.
and/or
Anatomy inconsistent with continued attempts.
and/or
Three (3) unsuccessful attempts by most experienced Paramedic / AEMT.
*Each attempt should include change in approach*
*or equipment*

NO MORE THAN THREE (3) ATTEMPTS TOTAL

Call for additional resources if available

Failed Aiway

BVM
Adjunctive Airway NP / OP
Maintains
Oxygen Saturation ≥ 90 %
Preferably ≥ 94 %

YES → Continue BVM
Supplemental Oxygen
Exit to
Appropriate
Protocol(s)

NO

**A** Airway Video Laryngoscopy
Device Procedure
***if available***
***Optional***

**B** Attempt
Airway Blind Insertion Airway
Device Procedure

**P** Airway Cricothyrotomy
Needle Procedure
**See Pearls Section**

BIAD / Cricothyrotomy
Successful
Or
Oxygenation / Ventilation
Adequate

YES → Exit to
Post-intubation /
BIAD Management
Protocol AR 8

NO

Supplemental oxygen
BVM with Airway Adjunts
Maintain Oxygen Saturation
≥ 90 %
Preferably ≥ 94 %

**Notify Destination or**
**Contact Medical Control**

Airway Respiratory Protocol Section

# Pediatric Failed Airway



## Pearls

- **For this protocol, pediatric is defined as any patient which can be measured within a Length-based Resuscitation Tape.**
- **If an effective airway is being maintained by BVM with continuous pulse oximetry values of ≥ 90%, it is acceptable to continue with basic airway measures instead of using a BIAD or Intubation.**
- **For the purposes of this protocol a secure airway is when the patient is receiving appropriate oxygenation and ventilation.**
- **An intubation attempt is defined as passing the laryngoscope blade or endotracheal tube past the teeth or inserted into the nasal passage.**
- **Capnometry (color) or capnography is mandatory with all methods of intubation. Document results.**
- **Continuous capnography (EtCO2) is strongly recommended with BIAD or endotracheal tube use though this is not validated and may prove impossible in the neonatal population (verification by two (2) other means is recommended).**
- **Ventilatory rate: 30 for Neonates, 25 for Toddlers, 20 for School Age, and for Adolescents the normal Adult rate of 8 – 10 per minute. Maintain a EtCO2 between 35 and 45 and avoid hyperventilation.**
- **It is strongly encouraged to complete an Airway Evaluation Form with any BIAD or Intubation procedure.**
- **If first intubation attempt fails, make an adjustment and then try again:** Different laryngoscope blade; Gum Elastic Bougie; Different ETT size; Change cricoid pressure; Apply BURP; Change head positioning
- AEMT and Paramedics should consider using a BIAD if oral-tracheal intubation is unsuccessful.
- During intubation attempts use External Laryngeal Manipulation to improve view of glottis.
- Gastric tube placement should be considered in all intubated patients.
- It is important to secure the endotracheal tube well and consider c-collar (even in absence of trauma) to better maintain ETT placement. Manual stabilization of endotracheal tube should be used during all patient moves / transfers.
- **Airway Cricothyrotomy Needle Procedure:**
  **Indicated as a lifesaving / last resort procedure in pediatric patients ≤ 11 years of age.**
  **Very little evidence to support it's use and safety.**
  **A variety of alternative pediatric airway devices now available make the use of this procedure rare.**
  **Agencies who utilize this procedure must develop a written procedure, establish a training program, maintain equipment and submit procedure and training plan to the State Medical Director / Regional EMS Office.**
- **DOPE: D**isplaced tracheostomy tube / ETT, **O**bstructed tracheostomy tube / ETT, **P**neumothorax and **E**quipment failure.