EMT: Airway, Oxygen and Equipment Checks

Airway protection, suction, adjuncts, bag-mask ventilation, CPAP, oxygen cylinders and the shift check

Medic Basics
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CAN THE PATIENT PROTECT THE AIRWAY?

FINDING	DO
Responds only to pain (AVPU P or U), even with a clear airway and normal vitals	Reflexes blunted: recovery position if no spine concern, suction ready, watch continuously
Gurgling	Liquid in the airway: suction before oxygen or ventilation
Drooling, wet voice, cannot clear secretions (stroke)	Suction, nothing by mouth, head up 15–30° if SBP over 100
New inspiratory stridor	Upper airway narrowing: position of comfort, no forced adjunct, ALS, go
SpO2 100% on a non-rebreather with slow shallow breaths	Oxygen hides hypoventilation: ventilate

SUCTION AND ADJUNCTS

DEVICE	USE
Rigid tonsil tip	Thick or chunky vomit in mouth and oropharynx; only as deep as you can see
Soft French catheter	Nose, nasal airway, tracheostomy, thin secretions; clogs with vomit
Oral airway	No gag only. Size: mouth corner (flange) to angle of jaw
Child oral airway	Tongue blade holds the tongue down, insert curve down; no 180° rotation (palate injury)
Nasal airway	Patient with a gag reflex

Too small pushes the tongue back; too large injures tissue and provokes gagging and vomiting.

BREATHING AND THE BAG-VALVE MASK

- Rapid shallow breathing moves little air: dead space is 30–40% of a normal breath; a rate over 28–30 cannot last
- Hypoventilating: assist each breath and add breaths to reach the target rate
- Apnea: adult 1 breath every 6 s; child or infant every 2–3 s; just enough to see chest rise
- Oxygen at 15 L/min keeps the reservoir full; a flat reservoir means room air is entering
- Oxygen runs out: keep ventilating; the bag refills with room air

CPAP AT THE EMT LEVEL

- Improving on CPAP: keep it on and keep the ALS intercept; she still depends on it
- Worse on CPAP (vomiting, falling mental status, sudden one-sided chest pain and lost breath sounds): remove it, high-flow oxygen, assist if needed, ALS
- Not for vomiting, obtundation, facial trauma or upper airway obstruction

SPECIAL AIRWAYS

PATIENT	KEY ACTION
Wired jaw, vomiting with breathing trouble	Cut the vertical wires and elastics with her cutters (side-lying to drain is common sense, no source names a position); suction; remove loose wire
Lower molar abscess, swelling under both jaws	Can obstruct within hours; stridor is the warning; upright, ALS, go
Child bit through the tongue	Sit up leaning forward, gauze pressure 10 min, suction, transport
Slate-gray, SpO2 stuck near 85% on oxygen after benzocaine	Methemoglobinemia: keep high-flow oxygen, bring the product, ALS

OXYGEN CYLINDERS

> **EXAM TIP** Minutes = (gauge psi − safe residual) × cylinder constant ÷ total L/min. D 0.16, E 0.28; M as given (1.36 or 1.56). Two patients: add the flows.

PROBLEM	ANSWER
Regulator pins do not match the valve	Wrong-gas regulator (pin index): get an oxygen one; never shim
Bourdon gauge reads 15, reservoir flat	It reads pressure: look for a kinked or pinched tube
Test date overdue (3A/3AA: 5 y, 10 y with a star)	Tag for retest; never refill
Sticking regulator	No oil or grease ever: swap and repair
Storage beside fuel or oily rags	20 ft away or a fire-rated barrier
Liquid oxygen unit	Upright and secured; do not touch cold parts (frostbite)
Shock advised, mask on chest	Mask, cannula or BVM at least 1 m away

SHIFT CHECK: OUT OF SERVICE UNTIL FIXED

- Missing infant mask: report it and get one before taking calls
- Portable suction that fails off the charger: the mounted unit cannot reach the patient
- Glucometer control out of the vial range: do not use; retest with good strips

THE PATIENT'S OWN MEDICINE

- Asthma attack: the rescue albuterol inhaler, never the twice-daily controller (fluticasone-salmeterol)
- Auto-injector: right patient, drug, dose (0.3 mg adult), thigh, in date, clear and colorless

Drug scope: Common EMS Medications. Anaphylaxis: Toxins, Stings and Anaphylaxis in the Field.

Sources (33) are listed with links at medicbasics.com/sheets/emt-airway-oxygen-equipment.html. For education and exam preparation only. Not medical advice; follow current guidelines and your institution's protocols. Medic Basics is an independent study aid not affiliated with any certifying body.