SUPPLEMENTAL OXYGEN DELIVERY DEVICES

	FLOW	FIO2 REC'D*	NOTES
BLOW BY O2	[6-8 L/min from wall]	< 30%	• Use for spontaneously breathing children who require oxygen and do not tolerate a mask • Temporary way to provide O2 to infants/toddlers who become agitated with other methods of O2 delivery [aka croup] • Not reliable
NASAL CANNULA	• <4 lpm for infants/toddlers • <6 lpm for older kids/teens	25-45%	• Generally, ≤ 2 lpm is used for infants/toddlers • >2L irritates nares unless heated/humidified • Mouth breathing may decrease effectiveness of oxygen delivery
SIMPLE FACE MASK	6--10 lpm	35-60%	• Flow >5 lpm is necessary to prevent rebreathing of CO2 • Plastic mask is a reservoir for oxygen • Holes on side of mask allow exhaled gases out and room air in which leads to dilution of oxygen
NON-REBREATHER MASK	10-12 lpm	65-95%	• Two one-way valves ensure minimal dilution of fresh O2 supply o One--way valve over one exhalation port allows egress of exhaled gas and prevents room air from entering during inspiration ▪ As a safety precaution, the other exhalation port allows room air into the mask if the flow of O2 is interrupted o The second one-way valve located between the reservoir and the mask prevents flow of exhaled gas into the reservoir • Requires sufficient flow so reservoir doesn't fully deflate • Tight mask fit required to deliver higher concentrations of oxygen
HIGH FLOW NASAL CANNULA	• 1-8 lpm for infants/toddlers • 1-40 lpm for kids/teens		• Delivers heated and humidified O2 • High flow rates can be difficult to titrate to specific PEEP

*FiO2 delivered from wall is 100%

- FiO2 delivered is affected by respiratory rate, tidal volume, and the fit of cannula/mask.
- None of these O2 delivery methods described are not to provide positive pressure but can, in some cases, do so.
- Oxygen should be humidified, whenever possible, to prevent dried secretions from obstructing smaller airways