Oxygen Therapy and Airway Adjuncts

**Oxygen ("O₂")**
- Supplied as medical oxygen - not the same as regular commercial O₂.
- Supports combustion but is not flammable
- When full, a tank contains contain 2000 psi
- Be careful when storing and moving O₂ tanks
- Oxygen regulators convert pressure to a working pressure of 50 psi Further regulated by flowmeter
- **Pin Index Safety System** (“PISS”) for gasses
- Safe residual pressure of tank is 200 psi

**Oxygen Delivery Devices**
- **Nasal Cannula** – low flow low percentage
- **NonRebreather** – high flow high percentage
- **Bag Valve Mask** (“BVM”) -- high flow high percentage
  - *Used to ventilate patients with inadequate respirations*

- Inhaled air contains 21% oxygen, 79% other gasses
- Exhaled air contains 16% oxygen, 4% carbon dioxide

**The average healthy human breathes due to their CO₂ drive (venous)**
- Increased CO₂ levels detected in the brain stimulate breathing
- “COPD” patients may breath due to a hypoxic drive
  - *Decreased O₂ levels detected in the brain stimulate breathing*

**Airway adjuncts**

**Oropharyngeal Airway** - “OPA”
- Used in patients with no gag reflex and are unresponsive
- Measured from corner of patients mouth to tip of earlobe or center of the patient’s mouth to the angle of lower jawbone

**Nasopharyngeal Airway** - “NPA”
Can be used in conscious patients and is generally well tolerated
NPA measured from patient’s nostril to earlobe or to angle of jaw
Oxygen Therapy and Airway Adjuncts

Both the OPA and NPA
- Assists in keeping airway open
- Does not substitute for other routine airway control (e.g. Head Tilt/Chin Lift”)

Suction
- Mechanical means of removing debris from the mouth or nose area
- Two types
  - fixed
  - portable
→ Suction no longer than 15 seconds – “as long as you can comfortably hold your breath”

Suction Catheters
- Soft (“Whistle Tip”)
- Rigid (“Yankauer”)