

Oxygen Tank Use

1. Basics

- Is a drug
- Non-flammable gas – may support combustion
- Use No petroleum products (oil, grease, or adhesive tapes) on connections or fittings exposed to oxygen
- Cylinder
 - ◆ Color is Green – Medical grade oxygen
 - ◆ “Key Pin Index” – series of holes in stem which match medical oxygen regulators only
 - ◆ Must be secured at all times – empty or filled
 - ◆ Must be pressure tested and expiration date stamped on cylinder (5 or 10 years, depending on cylinder construction)
 - ◆ On/Off valve – may be handwheel, wrench, “toggle” operated
- Must be stored away from sources of heat, sparks, or flame
- Full cylinder = approx 2000 psi
- Empty cylinder = 200 psi
- A gasket must be used between the cylinder and the regulator.

2. Equipment

- O2 Cylinder – Various sizes
- Regulator/gauge
 - ◆ Shows tank pressure
 - ◆ Reduces tank pressure to user levels
 - ◆ Allows variable flow rates – typical range from 0 to 25 lpm
 - ◆ Barbed fitting for tubing connection for variable liter flows
 - ◆ May have DISS connection (threaded “quick connector”) for other delivery devices
- Typical Delivery devices
 - ◆ Nasal Cannula – Maximum of 6 lpm
 - ◆ Simple and rebreather masks – Medium concentration O2 delivery
 - ◆ Non-Rebreather mask – High concentration. Start at 15 lpm
 - ◆ Flow Restricted Oxygen Powered Ventilation Device (FROPVD)

3. Setup/Use

1. Support Cylinder
2. With O2 port aimed in a safe direction “Crack” the valve momentarily to assure no debris in port
3. Select proper regulator, assure appropriate gasket is in place
4. Place Regulator over Cylinder stem - Align Key Pin Index
5. Tighten regulator “T-Bar” handle to secure to stem
6. Select appropriate delivery device and attach to regulator
7. Turn cylinder on – check tank pressure is adequate, check for leaks - correct as necessary
8. Adjust liter flow on regulator to desired flow rate (cannula: Max 6 lpm; NRB: 15 lpm for – fill bag)
9. Apply delivery device to patient – adjust flow as needed
10. Monitor tank pressure/flow rate during use

4. Shut down/disassembly of delivery system

1. Remove delivery device from patient
2. Turn off regulator, remove delivery device
3. Turn off Cylinder
4. Release “trapped” pressure in regulator by turning regulator on till gauge reads zero
5. CONFIRM gauge reads “0” and remove regulator
6. Properly secure cylinder