



HANDI
MEDICAL SUPPLY

OXYGEN



OXYGEN EQUIPMENT

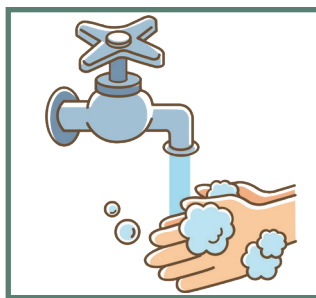
This equipment is being rented; you do not own it. It must be returned in the same condition as when it was delivered to you. There is NO SMOKING near your oxygen equipment.

HAND WASHING

Always wash your hands before touching your respiratory equipment.

When washing hands with soap and water:

- Wet your hands with clean running water and apply soap.
- Rub hands together to make a lather and scrub all surfaces.
- Continue rubbing hands for 20 seconds.
- Rinse hands well.
- Dry your hands using a paper towel.
- Use paper towel to turn off the faucet.



When using an alcohol-based hand sanitizer:

- Apply product to the palm of one hand.
- Rub hands together vigorously.
- Rub the product over all surfaces of hands and fingers until hands are dry.

OXYGEN

Oxygen is a medication. It must be ordered by a doctor or a nurse practitioner. Your prescription will tell how many liters per minute (lpm) you need and how many hours per day you should use the oxygen.



Oxygen is a gas. This gas does not have a taste or a smell. In the air we all breathe (room air) there is 21 percent oxygen. When your heart and lungs are working well, this is enough oxygen to keep your body healthy. Today we are here to set up and teach you about your supplemental oxygen system(s) and supplies.

OXYGEN SAFETY

Oxygen is safe to use in the proper conditions. Oxygen will not catch fire but it will make anything that is already burning, burn hotter and faster. The containers that the oxygen is in must be stored correctly.

Post Your “Oxygen In Use” Sign on Your Front Door or Window



Keep Oxygen Equipment Away From Heat, Such As:

- Open flames
- Space heater or stove

Do Not Use Grease or Flammables Near Oxygen Equipment

- Use water-based products (KY jelly, etc)
- Do not use petroleum based lotions or hair products

No Smoking!

- Do not smoke or allow anyone to smoke by you

Oxygen Cylinder Storage

- Oxygen cylinders are under very high pressure
- Secure if standing up-right in a base or cylinder holder – if one of these is not available lay the cylinder flat
- Never store cylinders in a closed area such as a closet or trunk of a car

Electrical Outlet

- Do not plug an oxygen concentrator into an outlet that is powering appliances

Home Address

- Make sure you can see your address from the street both day and night

Emergency or Natural Disaster

- **IF YOU HAVE A MEDICAL EMERGENCY DIAL 911**
- If you have trouble with your equipment call Handi Medical
- If there is a natural disaster please listen and follow the emergency directions from local authorities

Smoke Detector

- Make sure your smoke detector is working

Cooking

- Keep your oxygen cannula away from heat source
- Instead of the cannula being secured under your chin; secure it behind your head while cooking

Area Rugs

- Please remove area rugs to reduce the chance of tripping

Oxygen Tubing

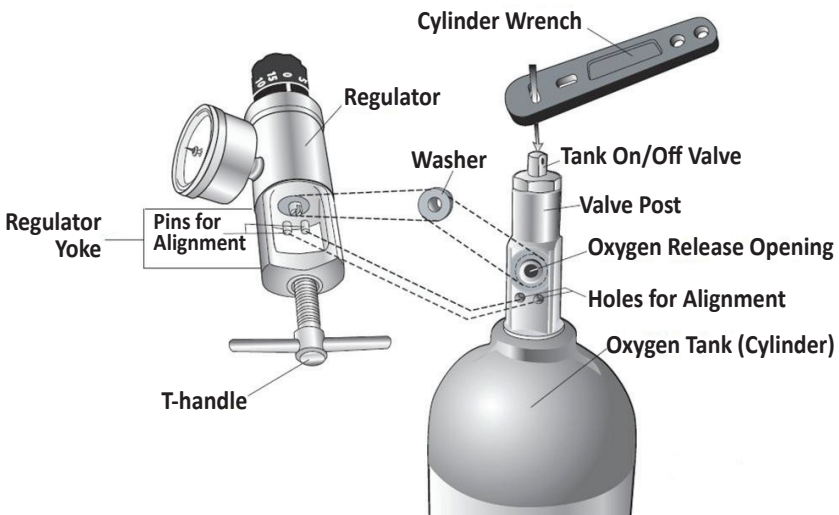
- Longer oxygen tubing can be a hazard for tripping
- If you would like colored tubing it will be provided for you



OXYGEN CYLINDER

The oxygen in these cylinders is under very high pressure. The pressure is measured in pounds per square inch (psi). A full cylinder will have 2000-2200 psi; as the oxygen in the cylinder is being used the pressure will decrease until the cylinder is empty.

Parts of the Oxygen Cylinder System:



Tank valve: controls oxygen out of the cylinder

Stem of tank: contains hole/pins that the regulator attaches to

Cylinder: oxygen cylinder “tank” is always green

To Connect the Oxygen Regulator to the Cylinder

- Remove the tape that is around the stem of the regulator
- Make sure brass and rubber or plastic washer is in place
- Position the regulator around the stem of the cylinder
- Make sure the pins in the regulator fit into the stem of the cylinder
- Hand tighten the regulator in place with T-handle

Turning The Cylinder On

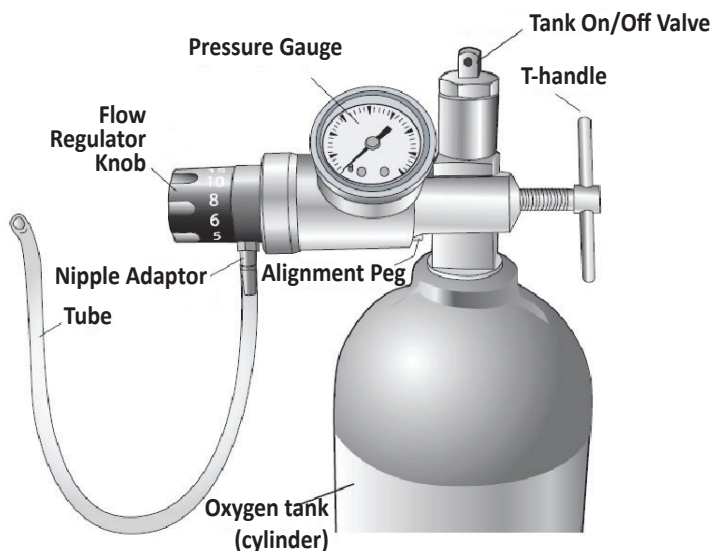
- Using a tank wrench turn the stem of the cylinder counter clock-wise

Reading The Regulator

- The regulator controls two things:
 - The pressure coming out of the cylinder
 - The flow of oxygen coming out of the cylinder
- The regulator shows how much pressure is in the cylinder; as the oxygen is used the pressure (psi) will fall – until it is empty and time to switch to a new tank
- Adjust the liter per minute to match your order

Attaching the Oxygen Tube

- Secure the oxygen tubing to the regulator's port
- Place the prongs into your nostrils, prongs should curve into your nose
- Cannula tubing stays in place by putting it in back of your ears and securing it under your chin





Turn Off Your Oxygen

- When not in use turn off your oxygen
- Take off your nasal cannula

PORTABLE OXYGEN

E Cylinder of Oxygen Duration

Pressure Gauge Reading	1 liters per minute	2 liters per minute	3 liters per minute	4 liters per minute	5 liters per minute
2000 psi	8 hr	4 hr	2.5 hr	2 hr	1.5 hr
1500 psi	6.5 hr	3 hr	2 hr	1.5 hr	1 hr
1000 psi	4 hr	2 hr	1.25 hr	1 hr	30 min
500 psi	2 hr	1 hr	25 min	15 min	5 min

M9 Cylinder of Oxygen Duration

Pressure Gauge Reading	1 liters per minute	2 liters per minute	3 liters per minute	4 liters per minute	5 liters per minute
2000 psi	4 hr	2 hr	1.25 hr	1 hr	*
1500 psi	3 hr	1.5 hr	50 min	45 min	*
1000 psi	2 hr	1 hr	30 min	20 min	*
500 psi	1 hr	15 min	5 min	0	*

** Not recommended*

Cylinders should be placed in the backseat and with seatbelt, for security or on the floor in the back seat.

- Crack a window in the vehicle to increase ventilation
- Keep cylinders out of direct sunlight
- Never store cylinders in the trunk of a vehicle

OXYGEN CONSERVER

An oxygen conserver is a regulator that only delivers oxygen when you inhale. The flow that you get from a conserver is not measured in LPM because it is not continuous flow. The oxygen is delivered in a pulse.



You must have an order for an oxygen conserver. Because the oxygen is pulse dosed, not everyone will do well with an oxygen conserver. Our clinician will do an oximetry test to make sure that your oxygen saturation level does not drop. Each maker of conservers conserves oxygen differently. We cannot make one chart that will fit every type of conserver. You will get specific information on your type of conserver.

OXYGEN CONCENTRATOR

An oxygen concentrator is an electrically powered machine that takes room air, separates the oxygen from the other gases, and delivers the concentrated oxygen to you.



An oxygen concentrator has the following parts:

Power switch: to turn on/off the concentrator

Flow regulator: to adjust the flow (in liters per minute)

Electrical plug: to plug into an electrical outlet

Alarm system: to alert you if the power

is interrupted

Where to Place Your Concentrator

- Place in an open area (never place in a closet)



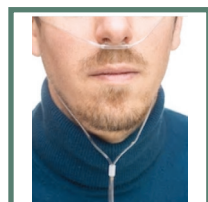
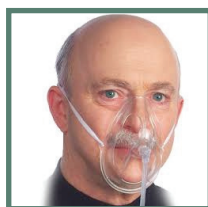
- Place away from any heat source
- Place at least 6 inches from walls, curtains, bedding (anything that could block the air inlet)

Turn On Your Concentrator

- Plug the concentrator into a grounded outlet
- Turn the concentrator ON (alarm will sound until pressure is reached)
- Adjust the flow to your ordered setting in liters per minute (lpm)

Attaching the Oxygen Tube

- Secure the oxygen tubing to the flow port
- Secure your cannula to the oxygen connecting tube
- Place the prongs into your nostrils (prongs should curve into your nose), or place mask over nose and mouth
- Keep the nasal cannula in place by putting it in back of your ears and securing it under your chin



HUMIDIFIER BOTTLE

Humidifier bottles are often called “bubblers”, because the water inside bubbles during use. Usually a humidifier is not needed unless your liter flow is greater than 4 lpm.



Humidifier Bottle “Bubbler”

To Set Up Your Humidifier

- Pour distilled water into the jar between the minimum and maximum fill lines
- Screw the lid onto the jar, making sure it is threaded correctly
- Attach the lid to the concentrator
 - With some brands of concentrators the lid screws onto the flow meter
 - Some brands require a tube and a connector – the tube connects to the flow port and the connector screws into the humidifier lid
- Attach the oxygen tubing to the port on the humidifier lid

HOME FILL SYSTEM

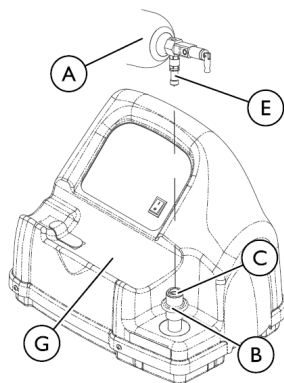
Connecting The Cylinder

1. Examine the cylinder gauge. If the cylinder pressure is less than 1500 psig, proceed to Step 2.
If the pressure is greater than 1500 psig DO NOT attempt to top off the cylinder - it may not fill.
2. Set the regulator flow dial on the cylinder to Off (A).
3. Remove the cylinder and connect fillport covers (if present).
4. Momentarily push DOWN on the

outer ring (sleeve) (B) of the connector fillport (C) until GREEN dots (D) are visible to reset the connector.

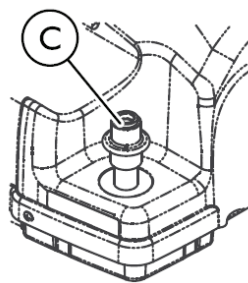
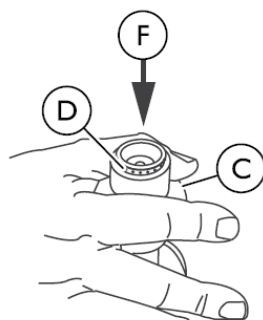
If the outer ring is in the UP position GREEN dots are not visible, the connector fillport will not be able to accept the cylinder fillport (E).

Pushing DOWN (F) momentarily will reset the connector fillport to accept the cylinder fillport.



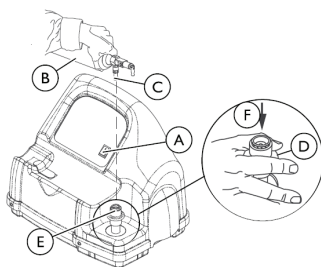


5. Grasp the cylinder in the area behind the fillport.
6. Position the cylinder in the compressor cradle.
7. Align the cylinder fillport with the connector fillport.
8. Pull UP on the outer ring (sleeve) of the connector fillport while pushing DOWN on the cylinder to couple the cylinder fillport into the connector fillport.
9. The cylinder is properly connected when an audible "click" is heard.
10. Flow rate for 0-5 concentrators is 3 lpm; for 0-10 concentrators it is 5 lpm.

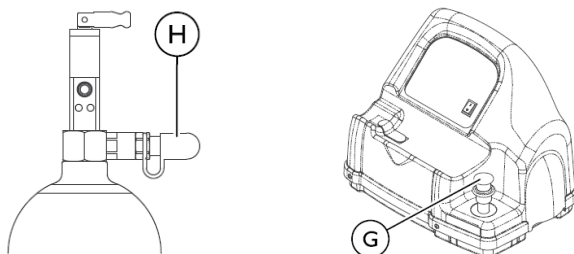


Disconnecting The Cylinder

1. Press the compressor power switch (A) to the Off position.
2. Grasp the cylinder (B) in the area behind the cylinder fillport (C).
3. With the other hand, grasp the outer ring (sleeve) of the connector fillport (E) and push DOWN (F).
4. Lift up on the cylinder to remove from the connector fillport.
5. When the cylinder fillport is disconnected from the connector fillport, release the outer ring (sleeve) of the connector fillport and use two hands to remove the cylinder from the compressor cradle.



6. Place the fillport cover onto the connector fillport (G) and the cylinder fillport (H).
7. Examine the cylinder gauge to ensure cylinder is full (needle pointing into GREEN area).
8. If the cylinder is not full, repeat steps for "connecting the cylinder". If that doesn't work, contact Handi Medical.



CLEANING SCHEDULE

Wash your hands before handling your respiratory equipment.
Clean all equipment and supplies in a clean area.

Once Per Week

Wipe off your nasal cannula

Concentrator:

- Remove filter and wash in warm soapy water
- Rinse
- Pat dry with a clean towel
- Once completely dry, put the filter back on the concentrator
- With a damp cloth wipe off the exterior of your oxygen equipment

Cleaning The Humidifier Bottle

- One time per week wash all parts in warm soapy water
- Rinse completely



- Mix together three parts water and one part white vinegar
- Soak bottle for 30 minutes to disinfect
- Rinse well
- Allow to air dry

Every Other Week

Replace old cannula with a new cannula

Every Three Weeks

Replace oxyimizer cannula and mask

TRAVELING WITH OXYGEN

If you will be traveling outside of Handi Medical Supply's service area for an extended amount of time, please call us. We will help you coordinate appropriate oxygen services while you travel.

NOTE: PLEASE REFER TO YOUR AIRLINES OR TRANSPORTATION COMPANY FOR SPECIFIC BOARDING REGULATIONS.

TROUBLESHOOTING YOUR OXYGEN CYLINDER AND CONCENTRATOR

TROUBLE	CAUSE	SOLUTION
Oxygen not flowing from the nasal cannula or mask	Cylinder is empty	Look at the pressure gauge and replace with new cylinder
	Oxygen flow seems low	Place cannula in glass of water and look for bubbles from the flow
		Check for kinks in tubing
	Connections are loose	Tighten

TROUBLE	CAUSE	SOLUTION
Oxygen not flowing from the nasal cannula or mask	Cannula kinked	Change to new cannula
	Cylinder valve is closed or liter control knob is turned off	Turn the valve open and check flow setting on regulator
Oxygen cylinder makes a hissing noise	Regulator is not tight	Tighten
	Leaking at the washer	Replace the washer between cylinder and regulator
	Leaking at the regulator	Make sure there is only one washer in place If not resolved with the two steps above call Handi Medical
Concentrator not operating	No power at the outlet	Check the power source – make sure that a light switch is not operating the outlet
	Plug not pushed into the electrical outlet	Check plug
	Electrical power outage	Switch to your portable or back up oxygen system
	Concentrator circuit breaker set off	Reset circuit breaker



TROUBLE	CAUSE	SOLUTION
Water is blocking the oxygen tubing	Humidifier jar is over-filled – humidity has condensed in tubing	Change tubing or shake excess out of tubing (if needed, switch to portable while you change or clear the tubing)
Not able to dial in the flow rate	Obstruction in cannula	Disconnect cannula from tubing, if flow is fine replace with new cannula
	Obstruction in tubing	Disconnect tubing from concentrator – if flow is fine, replace with new tubing
	Obstruction in humidifier bottle	Disconnect humidifier bottle – if flow is fine replace humidifier bottle or connect tubing to the nipple adapter
Temperature light and/or alarm is on	Concentrator is overheated	Make sure that the air inlet is not blocked
		Make sure filters are clean
		Switch to your portable system. Turn the concentrator off. Let concentrator cool off for 30 minutes. Restart the concentrator.
Any other concern that you can't resolve?		Call Handi Medical (651) 644-9770



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