

# Medical Plus Supplies

## OXYGEN CONCENTRATOR, OXYGEN BACK-UP AND PORTABLE OXYGEN CYLINDER

### YOUR PRESCRIPTION

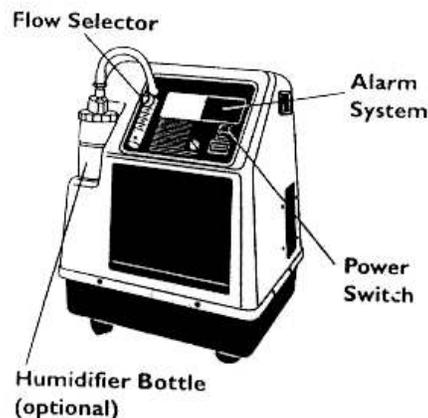
Oxygen is a drug and has been prescribed by your physician. An exact flow rate in liters per minute has been ordered to increase the oxygen level of your blood. This flow rate must never vary from what your doctor prescribes. Your doctor may have prescribed your oxygen for 24-hour use, use only during sleep, use only during exercise, or use only during acute episodes of shortness of breath. Always use your oxygen according to your prescription.

### ABOUT OXYGEN

- Oxygen is not addictive. The more you comply with your prescription, the more benefits from it you will obtain.
- Oxygen is not flammable, nor does it explode. However, oxygen will make a fire burn quicker. To avoid the chances of a fire:
  - Never smoke while using your oxygen concentrator.
  - Do not use open fire or flames near the oxygen concentrator.
  - Keep all electrical equipment (electric razors, heaters, blankets) at least 5 feet from your oxygen).
  - Keep away from sources of heat (stove, space heater, radiator, fireplace)
  - Do not use oil or grease on oxygen equipment. Use water-based lubricants to moisten your lips or nostrils, if necessary. Never use oil-based products, such as petroleum jelly.
  - Never store any cylinder in closet or unventilated space
- Oxygen cylinder should never be stored or transported in the trunk of a car; and that the tank should be secured by a seat belt when in transit
- Secure cylinder at all times in a base or cart.

### YOUR OXYGEN CONCENTRATOR

The Oxygen Concentrator is an electrically operated device which takes room air and separates the oxygen from the other gases and delivers more “concentrated” oxygen to you.



Oxygen concentrators are available in many different sizes and models, but they all have the same basic parts: a power switch to turn the unit on and off, a liter flow knob to regulate the liter flow to that prescribed by your physician, and an alarm to alert you to a power interruption or equipment failure so you can change to your back-up tank.

1. Plug the concentrator's electrical cord into an outlet.
  - Keep back and sides of the concentrator at least 6 inches from drapes or walls.
  - Locate concentrator at least 3" from wall.
  - Use an outlet which is not controlled by a wall switch
2. Attach the nipple adapter (or "Christmas Tree") to the concentrator outlet port and attach up to 50 feet of tubing to the adapter.
3. Turn the concentrator switch to "ON". It is normal for the unit to sound an alarm for a few seconds both as an "alarm test" and to tell you that the unit has not reached its correct operating pressure.
4. Adjust the oxygen flow by turning the liter control knob until the flow rate is set according to your doctor's order.
5. Next, fit the nasal cannula on your face, making sure the prongs face upward and curve INTO your nostrils.

### CONCENTRATOR ROUTINE MAINTENANCE

The intake filter should be cleaned weekly by washing in soapy water, rinse thoroughly, dry with a clean towel and reattaching filter to machine.



The nasal cannula should be replaced at least once a month.

The extension tubing should be no longer than 50 feet and replaced every 9 weeks or less.

### CONCENTRATOR TROUBLESHOOTING

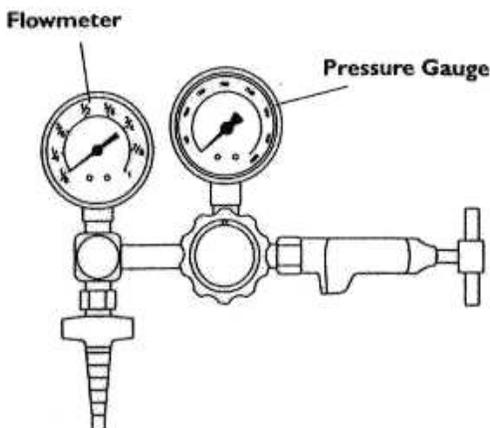
Your concentrator has alarms which will tell you if the machine is not functioning properly. Your technician will explain the alarms to you. If you hear or see one of the alarms call Goldstar Medical immediately.

If there is a power outage or machine malfunction turn the concentrator off, use your back up oxygen cylinder. Check that tubing is securely attached to the oxygen outlet and is not crimped, pinched, or obstructed by heavy furniture, chairs, etc.

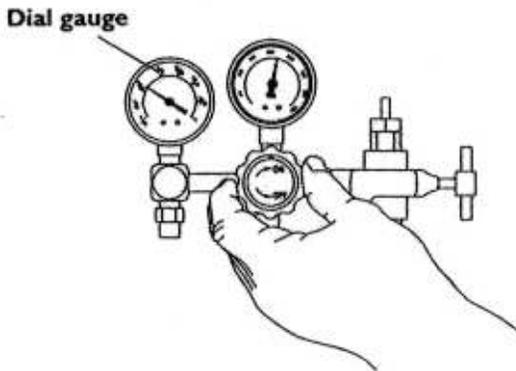
### OXYGEN CYLINDERS

The oxygen cylinder ("tank") is for use as a backup for your concentrator or a portable oxygen supply.

The regulator reduces the outlet pressure of the oxygen in the tank to a safe pressure for you to use it. One gauge displays the amount of oxygen remaining in the cylinder (expressed in pounds per square inch- psi). This pressure gauge will show pressure gradually dropping as the oxygen is used. A full cylinder may have between 1800-2200 psi when first turned on.



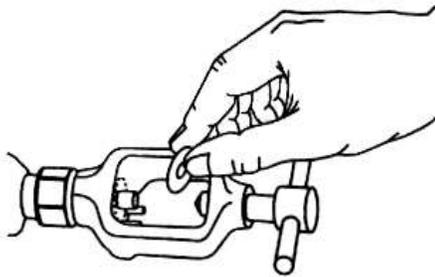
The other gauge (flowmeter) shows how fast the oxygen is being delivered in liters per minute: your prescribed liter flow. When you turn the dial, the Dial Gauge shows how many liters per minute are flowing from the tank.



Be sure the cylinder is secured in a pouch, on a cart or stand, away from heat, open flames, smoking or combustible materials. If you have extra portable cylinders, they should be stored lying down out of the way. We suggest you store extra cylinders under your bed.

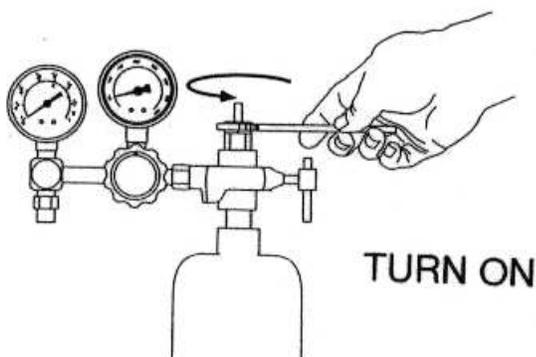
#### TO ATTACH REGULATOR TO SMALL, PORTABLE OXYGEN CYLINDER

- Remove the seal from the post valve of the full cylinder. Save the washer inside the seal.
  - If the old washer is faulty replace it with the new washer by placing the washer over the largest peg located inside the yoke of the regulator.
  - Attach the regulator to the cylinder by slipping the regulator yoke down over the post valve and aligning the 3 pegs inside the yoke with the 3 holes in the post valve.
  - Tighten the “T” bolt handle firmly. If the “T” bolt isn’t secure or if the washer is faulty there will be a loud hissing sound when the valve is turned on as the oxygen escapes. **There is no danger.** Turn the cylinder valve off and tighten “T” bolt or replace washer as necessary.



#### TO TURN ON OXYGEN

1. Turn flow adjustment knob OFF.
2. Using the cylinder wrench or round handle directly on top of some cylinders, slowly turn the valve counter-clockwise (left) all the way. This will open the cylinder valve allowing gas into the regulator and the pressure gauge will now indicate the amount of oxygen in the tank.
3. Observe the pressure in the tank to ensure oxygen is in the cylinder.
4. Adjust the flow control knob (flowmeter) until the flow indicator is at the prescribed flow rate.
5. When not in use, close the cylinder by turning the cylinder hand wheel or wrench clockwise all the way.
6. The flow of gas will cease when all the oxygen pressure is released from the regulator. When both gauge indicators read 0, turn the flowmeter knob OFF.



## TROUBLESHOOTING OXYGEN TANKS

- Check that the main valve is open and that pressure is observed on the pressure gauge.
- Check that the flowmeter is ON & adjusted to the prescribed liter flow.
- Check that tubing is securely attached to the oxygen outlet and is not crimped, pinched, or obstructed by heavy furniture, chairs, etc.

Remember: It is your responsibility to monitor the oxygen supply to insure that you do not run out of oxygen. A chart has been provided to assist you in determining when to order more oxygen. **Call Goldstar Medical** to reorder a new cylinder **1 to 2 days before** you run out **and** when the contents gauge reads 500 psi.

## Oxygen Cylinder Use Time in Hours

Always keep enough oxygen on hand to last overnight and during weekends and holidays.

Review the table on the back page of this brochure to calculate the approximate time your tank will last. If you need help in deciding how long your cylinder will last, please call our office.

For example: At 3 LPM with an E tank that has 1500 PSI remaining, you would have approximately 2 ½ hours of oxygen available (remaining) in the tank.

### E Cylinder – 682 Liters

Pressure in tank→	2000	1500	1000	500
Flow ↓				
1 LPM	10 HOURS	7.5 HOURS	5 HOURS	2.5 HOURS
2 LPM	5 HOURS	3.5 HOURS	2.5 HOURS	1.2 HOURS
3 LPM	3 HOURS	2.5 HOURS	1.5 HOURS	0.7 HOURS
4 LPM	2.5 HOURS	1.7 HOURS	1.2 HOURS	0.6 HOURS
5 LPM	2 HOURS	1.5 HOURS	1 HOURS	0.5 HOURS
6 LPM	1.5 HOURS	1 HOURS	0.7 HOURS	0.3 HOURS

### D Cylinder – 415 Liters

Pressure in tank→	2000	1500	1000	500
Flow ↓				
1 LPM	6 HOURS	4.5 HOURS	3 HOURS	1.5 HOURS
2 LPM	3 HOURS	2.25 HOURS	1.5 HOURS	3/4 HOUR
3 LPM	2 HOURS	1.5 HOURS	1 HOUR	1/2 HOUR

### H Cylinder – 7,986 Liters

Pressure in tank→	2000	1500	1000	500
Flow ↓				
1 LPM	100 HOURS	75 HOURS	50 HOURS	25 HOURS
2 LPM	50 HOURS	37 HOURS	25 HOURS	12 HOURS
3 LPM	33 HOURS	25 HOURS	16 HOURS	8 HOURS
4 LPM	25 HOURS	18 HOURS	12 HOURS	6 HOURS

### M Cylinder – 4000 Liters

Pressure in tank→	2000	1500	1000	500
Flow ↓				
1 LPM	50 HOURS	37.5 HOURS	25 HOURS	12.5 HOURS
2 LPM	25 HOURS	18.5 HOURS	12.5 HOURS	6 HOURS
3 LPM	16.5 HOURS	12.5 HOURS	8 HOURS	4 HOURS
4 LPM	12.5 HOURS	9 HOURS	6 HOURS	3 HOURS
5 LPM	10 HOURS	7.5 HOURS	5 HOURS	2.5 HOURS

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## OXYGEN CONSERVING DEVICE

Your doctor may have prescribed an oxygen conserving device (OCD). Because the OCD responds to each individual's breathing pattern, the actual use time will vary for each person depending upon the flow rate prescribed, the size of the oxygen supply and the rate of breathing.

**During your normal breathing, you are inhaling about 1/3 of the time and exhaling for about 2/3 of the time. By providing oxygen in brief pulses at the very beginning of the inhaling, the OCD extends the time of the oxygen supply by as much as three to one. The device senses the start of inhalation and immediately releases a short, pulsed dose of oxygen.**

Rare instances have been reported in which certain oxygen users could not be treated effectively with the OCD. If you experience the feeling that you are not receiving enough oxygen, report this to your doctor.

### USING YOUR OCD

1. If your conserving device uses batteries, check the energy level on the batteries in the OCD. (Make sure that the oxygen supply is turned OFF before testing the batteries.) Do not use the OCD with batteries removed. Always keep a spare set of batteries with your unit at all times.
2. Turn on the oxygen supply.
3. Set the flow selector on the OCD to your prescribed dosage. (If your unit has been pre-set internally, omit this step.) Put on the nasal cannula and breathe normally.
4. Do not use the OCD with a humidifier. The use of a humidifier will prevent the OCD from sensing the beginning of inhalation.
5. Do not expose the OCD to water, other liquids or extreme temperatures.

### How Many Hours Will Your Cylinder Last?

	Your Oxygen Flow Rate in LPM	M-L6 Cylinder 164 Gaseous Liters	ML-6 Cylinder 170 Gaseous Liters	"C" Cylinder 240 Gaseous Liters	"D" Cylinder 415 Gaseous Liters	"E" Cylinder 682 Gaseous Liters
<b>This chart is intended to be used only as a guide. Cylinders vary by manufacturer in gaseous liter capacity which may result in</b>	.5	16.5	17.2	24.2	41.9	68.9
	.75	11.0	11.4	16.2	28.0	45.9
	1	8.3	8.6	12.1	21.0	34.4
	1.5	5.5	5.7	8.1	14.0	23.0
	2	4.1	4.3	6.1	10.5	17.2
	2.5	3.3	3.4	4.9	8.4	13.8
	3	2.8	2.9	4.0	7.0	11.5
	3.5	2.4	2.4	3.5	6.0	9.8
	4	2.1	2.1	3.0	5.2	8.6

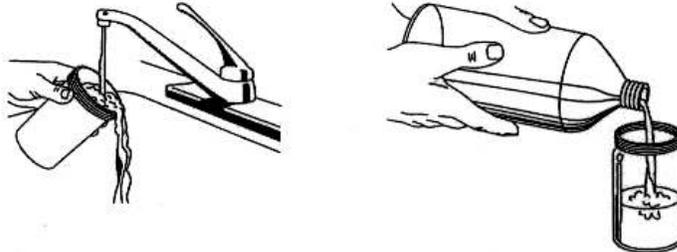
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## OXYGEN HUMIDIFIER

You may have an optional humidifier bottle if your physician has determined that additional humidification is needed (usually for patients on oxygen at more than four liters per minute).

### Daily Care:

1. Wash your hands.
2. Remove the humidifier jar and empty any remaining water.



3. Rinse the jar under a strong stream of warm water.
4. Using either tap or distilled water, refill the jar until it is half full. Do not overfill your humidifier as too much water in your humidifier will cause water to collect in your oxygen tubing.
5. Screw the humidifier bottle back onto the bottle lid until it is tight, making sure the threads are correctly aligned. Cross-threading will create a pressure loss.
6. Always have an extra humidifier bottle on hand as a replacement if the bottle or lid become cracked.

### Minimum of Every Third Day:

1. Wash your hands.
2. Remove the entire humidifier. Unscrew the lid and empty remaining water.
3. Wash the disassembled parts in liquid detergent (such as Joy) and warm water.
4. Rinse thoroughly.
5. Shake of excess water.
6. Soak the humidifier in a 3:1 mixture of white distilled vinegar and water solution for at least 30 minutes. Discard after use.
7. Remove from disinfectant. Rinse and shake off the excess water.
8. If the equipment is not going to be used immediately, air dry between folds of paper towels or on a clean hand towel.
9. When thoroughly dry, store the equipment in a plastic bag until ready to use.

If you are using a humidifier, you may occasionally have moisture accumulate in your tubing. If this is uncomfortable, remove the humidifier bottle from the outlet tube, connect your oxygen tubing directly to the outlet tube, and allow oxygen from your concentrator to run through your tubing for a few minutes to dry the tubing and clear the water. Then disconnect the tubing from the outlet tube and reattach your humidifier. Be sure your humidifier bottle is not overfilled as this can accelerate water accumulation in your tubing.

After you have reattached all your tubing, check your liter flow indicator on your concentrator unit to verify that oxygen is flowing at the proper prescribed level.