

YOUR OXYGEN CONCENTRATOR & CYLINDER SYSTEM

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 store on or near a heater, or any enclosed space.
- **Never use grease or oil on oxygen equipment. Keep equipment** away from all flammable materials such as oil, grease, aerosols, paints, gasoline and solvents. Do not use petroleum jelly with oxygen. Use water-based lubricants to moisten your lips or nostrils, if necessary.
- Never store any cylinder in closet or unventilated space **Do not place your oxygen equipment in a small or unventilated storage area.** Any venting oxygen could create a fire hazard.
- **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.
- Never use oil-based face or hair creams, aerosol sprays, a hair dryer or an electric razor. It is possible in certain conditions that the combination of oxygen, oil-based toiletries and a spark from an electrical appliance, such as an electric blanket, hair dryer, electric razor or heating pad, could ignite and cause burns. Always use water-based cosmetics or creams.
- **Secure cylinder at all times in a base or cart.** Oxygen cylinders need to be secured in a special base to keep the cylinder from falling over. The weight of the cylinder can damage property and people if it were to fall on something or someone. The cylinder valve could also be knocked off if the cylinder were to fall over. The high pressure coming out of the valve opening could then cause the cylinder to move about the room in a destructive, uncontrolled manner.

NO SMOKING Do not permit smoking in the same room as your oxygen equipment. Place “No Smoking” signs on the front and back door of your residence and also at the entryway to the room where you will be using your oxygen.

It is possible for you to be in a large room such as a restaurant where smoking is permitted as long as lighted smoking materials are not within five feet. Ask to sit in the non-smoking section of the restaurant.



USING SUPPLEMENTAL OXYGEN

The 21 percent concentration of oxygen in the air around us is enough for people with normally functioning lungs and hearts. However, a person with lung or heart problems may often benefit from breathing air that has a higher concentration of oxygen in it.

When the body does not get enough oxygen, a person may experience difficulty in breathing, fatigue, loss of memory, headaches and/or confusion. Using supplemental oxygen may help provide relief from these symptoms.

COOKING SAFEGUARDS



It is best to use a microwave oven or make other arrangements, but if you must cook, you may:

Step 1: Secure the cannula over your ears and behind your head instead of under your chin.

Step 2: Secure the oxygen tubing to the side of your clothing at your waist with a large safety pin. This method will keep the oxygen tubing away from the source of heat. Do **not** bend down close to the burner.

HAND WASHING TECHNIQUE



Hands must be clean prior to handling supplies and solutions. Wash hands before beginning any procedure or use an alcohol-based hand sanitizer.

Step 1: Wet hands thoroughly with warm water.

Step 2: Use antibacterial soap.

Step 3: Wash hands for at least 15 seconds using a rotary motion and friction. Wash: Back of palm of each hand, between all fingers, include your thumbs.

Step 4: Rinse hands under running water.

Step 5: Dry on a clean cloth or paper towel.

THE 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 us 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.

THE OXYGEN CYLINDER SYSTEM (for back-up &/or portability).

With this system, oxygen gas is pressurized to a high level and stored in steel or aluminum cylinders. The pressure is measured in pounds per square inch (PSI). A full cylinder may have between 1800-2200 psi when first turned on. The higher the pressure, the greater the amount of oxygen that can be compressed into the space of the cylinder. This pressure gauge will show pressure gradually dropping as the oxygen is used.

Oxygen cylinders are available in various sizes. Depending upon the size of the cylinder and the amount of oxygen you use, the oxygen will last for different periods of time.

Patients needing a portable supply of oxygen use a smaller light-weight system. The weight of these portable cylinders ranges from 7 – 18 pounds. They have capacities ranging from 240 – 625 liters of oxygen — a supply of 2 to 5 hours at 2 liters per minute.

Four different sizes of smaller cylinders are commonly available: the, the E, D, C cylinder, and the M6 cylinder. The M6, C and D cylinders are smaller. They are used with a carrying case with a shoulder strap. The E cylinder is a bit larger and is often used with a wheeled cart.



E D C M6



The oxygen is delivered to you through a nasal cannula or face mask. The tubing on the cannula or mask is attached to the outlet on the regulator. Sometimes, an extra length of tubing may be provided. This will allow you to move about at a farther distance from your cylinder.

YOUR CYLINDER SYSTEM

Your **cylinder** system consists of the following parts: the **cylinder**, which stores the pressurized oxygen, the **cylinder cart or stand**, which stabilizes the cylinder to prevent accidental tipping, a **regulator**, which controls the flow of oxygen from the cylinder.

The regulator consists of the **pressure gauge**, which tells you how much oxygen is left in the tank and a **flowmeter**, which provides the desired flow rate of oxygen.

Note: Use extreme caution if you use a humidifier bottle with a portable system. If the system is tipped over, water could run down the tubing into the patient's nose.

SAFE STORAGE

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 either in a cart, stand, rack, or lying down out of the way. We suggest you store extra cylinders under your bed. **DO NOT** store near heat (such as radiator, heater, stove, fire place, halogen lights), sources of ignition (candles, ash trays), other flammables (such as gas cans, mower), and try to keep 5 feet from electrical outlets.

Keep properly working smoke detectors and fire extinguishers in your home in case of emergencies. **DO NOT** place the concentrator in enclosed areas, as in a closet, or at least 12 inches from any possible obstructions.

TO ATTACH REGULATOR TO 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



Turn flow adjustment knob OFF.

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.

Observe the pressure in the tank to ensure oxygen is in the cylinder.



Adjust the flow control knob (flowmeter) until the flow indicator is at the prescribed flow rate.

Fit the nasal cannula.

Insert the two prongs of the cannula into your nostrils. Make sure the prongs curve into your nostrils. Slide the tubing over and behind your ears.

Adjust the tubing to fit comfortably under your chin by sliding the adjuster upward. Be careful not to adjust it too tightly.

TO TURN OFF OXYGEN



When not in use, close the cylinder by turning the cylinder hand wheel or wrench clockwise all the way.

The flow of gas will cease when all the oxygen pressure is released from the regulator.

When both the pressure gauge and the flowmeter register zero, turn the liter control knob counterclockwise until it is tight.

Oxygen Cylinder Use Time in Hours

Always keep enough oxygen on hand to last overnight and during weekends and holidays. Your oxygen flow is measured in liters per minute (LPM). Average oxygen usage time is based on continuous flow rate. These figures are approximate and are to be used only as a general guide.

		Usage Time (Hours:Minutes) at Prescribed Continuous Flow Rate:												
Cylinder	Capacity in Liters	.5 LPM	1 LPM	1.5 LPM	2 LPM	2.5 LPM	3 LPM	4 LPM	5 LPM	6 LPM	7 LPM	8 LPM	10 LPM	15 LPM
M2	40	1:19	0:40	0:26	0:20	0:16	0:13	0:10	0:08	0:06	0:05	0:05	0:04	0:02
M4	113	3:45	1:52	1:15	0:56	0:45	0:37	0:28	0:22	0:18	0:16	0:14	0:11	0:07
M6	170	5:39	2:45	1:53	1:22	1:08	0:55	0:41	0:33	0:27	0:24	0:20	0:16	0:11
ML6	170	5:39	2:45	1:53	1:22	1:08	0:55	0:41	0:33	0:27	0:24	0:20	0:16	0:11
M7	198	6:36	3:18	2:12	1:39	1:19	1:06	0:49	0:40	0:33	0:28	0:25	0:20	0:13
M9	255	8:30	4:15	2:49	2:07	1:42	1:25	1:04	0:51	0:42	0:36	0:32	0:25	0:17
D	425	14:09	7:00	4:43	3:32	2:49	2:22	1:46	1:25	1:11	1:00	0:53	0:42	0:28
E	680	22:39	11:20	7:33	5:40	4:31	4:27	2:50	2:16	1:53	1:37	1:25	1:08	0:45
M60	1738	57:55	28:02	19:18	14:29	11:35	9:39	7:14	5:48	4:50	4:08	3:37	2:54	1:56
MM	3455	115:09	57:35	38:23	28:47	23:01	19:12	14:24	11:31	9:36	8:13	7:12	5:45	3:50
H	6910	230:16	115:08	76:46	57:34	46:03	38:23	28:47	23:02	19:11	16:27	14:23	11:31	7:41

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 our office** to order a new cylinder **1 to 2 days before** you run out **and** when the contents gauge reads 500 psi.

CLEANING AND MAINTENANCE PROCEDURES

Your oxygen concentrator, cylinders and regulator are durable, dependable pieces of equipment and will continue to operate efficiently with proper maintenance.

As necessary, you should wipe your regulator, cylinder and/or carrying case with a clean, damp cloth. **Never** use wax, cleaning sprays or polish. Many of these products are flammable.



Never use any grease, oil or other lubricants on your regulator. These compounds are volatile and could pose a safety hazard.

Never attempt to repair your regulator yourself. Should you have any problems with your oxygen cylinder system at any time, call us immediately.

CARE OF YOUR OXYGEN TUBING

Minimal care is required of your oxygen tubing and nasal cannula. You should discard and replace your nasal cannula at least once a month.

Discard and replace your tubing every 90 days. Do not use alcohol or oil-based products on or near your cannula.

REORDERING OXYGEN

Always be aware of the amount of oxygen remaining in your cylinder. Please call us at least 24 hours in advance to order tanks. Place orders on Thursday for a Friday delivery so that you have enough tanks for the weekend.

TRAVEL TIPS

Early planning and careful preparation are the keys to an enjoyable trip.

Contact your doctor to make sure your proposed trip is medically safe and **to obtain additional copies of your prescription.**

Contact us for assistance with getting oxygen refills along your driving route or at your final destination.

If traveling by Car / RV:

- Remind passengers not to smoke in the car/RV.
- Securely fasten cylinders to prevent movement (usually a seat belt).
- Keep one window partially open to provide fresh air circulation and avoid accumulation of oxygen.
- Do not store oxygen in the trunk of your car.
- Do not store oxygen in an area where the temperature will reach 120 degrees Fahrenheit.
- In a recreational vehicle, do not store near gas or open flame.

Warranty

Your oxygen concentrator's warrantee is for as long as you rent the machine, or if you / your insurance company have purchased the oxygen concentrator, the warranty is for two years beginning with the date of original set-up.