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# Customer Education Packet

Equipment educational information is an accessible resource online at [www.carelinmed.com](http://www.carelinmed.com)

## **OXYGEN**

Partners in your CARE at home or wherever you are.

**⚠ CAUTION**

**OXYGEN IN USE**



**No Smoking**



**No Open Flames**

Your physician has determined, as a result of your current condition that supplemental oxygen will be of benefit to you and has prescribed the use of an oxygen concentrator to provide this supplemental oxygen. A prescribed setting of the oxygen concentrator has been established to meet your related needs. Changes to these prescribed settings should only be made under the advice of your physician.

The air we normally breathe is a mixture of oxygen, nitrogen and trace gases. The concentrator draws in room air, separates the nitrogen from the oxygen, and delivers concentrated oxygen to the patient through an oxygen port.

Your medical equipment supplier has instructed you on the proper care and use of your oxygen concentrator and will be available to answer any further questions you might have.

Some basic issues to be concerned with in relation to the care and use of your oxygen concentrator are:

- In the event of an equipment alarm or failure contact your medical equipment supplier. (**NEVER pull off concentrator shroud to attempt internal machine repairs.**)
- In the event of medical issues or concerns contact your physician. Call 911 for medical emergencies.
- Back up oxygen systems may be provided in case of power outages;
- Oxygen supports combustion and should be kept away from heat or open flame;
- Do not smoke or allow others to smoke near the concentrator when in use;
- Do not use oil or grease on concentrator or its components as the materials, when combined with oxygen, can present a potential for fire hazards and personal injury;
- Do not use the concentrator if either the plug or power cord is damaged;
- Avoid using extension cords or electrical adapters;
- Do not attempt to clean the concentrator while connected to an electrical outlet or other power source;
- Do not operate the concentrator without all filters in place;
- Ensure filters are totally dry before operating the concentrator;
- Oxygen concentrators require unobstructed air circulation. The concentrator ventilation ports should not be obstructed by anything that impedes required air circulation;

## Operations

- (1) Choose an appropriate location for your concentrator. One that will not restrict the flow of room air around the concentrator.
- (2) Place the concentrator 6 inches away from walls, furniture and especially draperies.
- (3) Do not place concentrator near any heat source.
- (4) Plug the concentrator into a grounded electrical outlet.
- (5) If a humidifier is being used, add the appropriate amount of water and attach the humidifier bottle to the oxygen outlet port.
- (6) Connect the cannula or other oxygen approved delivery device (oxygen tubing) to the outlet port of the concentrator or humidifier bottle (as appropriate).
- (7) Turn the concentrator on. **\*Note: When the concentrator is first energized an alarm may sound with associated indicators illuminated. Once the concentrator has reached normal operating conditions the alarms should cease.**
- (8) Adjust the flow meter to the prescribed setting.
- (9) Put on your oxygen delivery device as previously instructed.
- (10) Breathe normally.

### **Suggested Maintenance**

Routine preventive maintenance of your oxygen concentrator will be provided by your medical supplier; however there are a few minor maintenance activities for you to perform.

- (1) Weekly, clean the concentrator cabinet filter(s) in a mild detergent solution, squeezing out excess moisture and letting it dry before re-installation.
- (2) Weekly, change cannulas to reduce the risk of respiratory infections and other contamination.
- (3) Monthly, with the concentrator disconnected from power source, wipe the outside of the concentrator cabinet with a damp cloth and mild detergent. Additional tubing can be changed monthly or as needed.

### **Alarms**

Most concentrators have both an audible and visual alarm should the unit fail in proper operation. Should the alarm sound, switch to back-up systems as appropriate and contact your medical equipment supplier immediately.

### **Suggested Cleaning**

If you are using a humidifier jar, clean the water jar weekly with a solution of 1 part distilled white vinegar and 2 parts tap water.

Make sure you refill the humidifier jar using distilled or spring water and keep at least two inches of water in the humidifier jar during use.

Your nasal cannula or approved delivery device should be changed at least weekly. Additional tubing can be changed monthly or as needed.

The filter(s) on your concentrator must be cleaned regularly for the machine to work properly. Our technician will show you where your filter(s) are and how and when to clean them.

Keep your concentrator at least 6 inches from the wall to prevent heat buildup. Keep your concentrator 5 feet away from heat registers, ovens, and all other sources of heat.

**YOU WILL BE USING YOUR OXYGEN AS YOUR PHYSICIAN HAS PRESCRIBED. IF THERE ARE ANY CHANGES IN YOUR OXYGEN FLOW RATE OR HOURS OF USAGE, THEY WILL COME FROM YOUR PHYSICIAN.**

**STORAGE AND HANDLING**

**Storage:** The cylinder storage area should provide protection from extreme cold and accumulation of ice and snow. The storage of cylinders outside or in unheated rooms can result in frostbite injury from contact with cold metal. Likewise, stored cylinders should not be subjected to extreme heat (temperatures exceeding 125 degrees F [52 degree C], nor should cold cylinders be warmed by heating. In storage, cylinders should be protected from tampering, cutting, and abrasion. The cylinder storage area should be constructed of firewalls, where practical; should be **away from** flammable, highly combustible, and corrosive substances, and should be cool and dry, to prevent cylinder rusting. The facility should also be well ventilated to prevent accumulation of oxygen in the event of a leak. Storing cylinders underground should be avoided, as should storing them in a closet or the trunk of a car. Cylinders must be in a well ventilated area. In the home, cylinders, whether full or empty should be stored in accordance the recommendation of the supplier. Large cylinders should be stored with valves closed and their protective caps in place, and they must be secured to prevent tipping. Cylinders should be stored in-groups according to contents, and gases that support combustion should be stored in a separate location from gases that are combustible. Full and empty cylinders should be separated.

**Handling:** The careful handling of cylinders is necessitated by their weight as well as their pressurized contents. Large cylinders can weigh as much as 150 pounds and can cause crushing injury if dropped or tipped over. If the cylinder valve is damaged when a cylinder falls, the cylinder can become a missile with a 1 ton thrust.

**HOMEFILL CYLINDER DURATION**

Table of EasyPulse Values		Duration (in hours) at 20 bpm, when set to:					
Cylinder	Weight*	1	2	3	4	5	CF**
M6	4.5	9.2	4.9	3.6	2.9	2.5	1.4
ML6	5.2	9.2	4.9	3.6	2.9	2.5	1.4
M9	6	14.2	7.6	5.6	4.5	3.9	2.0

\*approximate weight in lbs., with full cylinder | \*\* at factory-set 2 Lpm



**Selecting the Right Number and Size of Cylinders:** The table references the weight of an *EasyPulse* system with the M6, ML6, and M9 cylinders. It also shows the duration of these cylinders at its five pulse settings, assuming a breathing rate of 20 bpm, and its duration on continuous flow. Reference this table to select the type of cylinder that is not too heavy for you to carry **and** has the duration you expect at your prescribed setting.

Once a type of cylinder is selected, you can calculate the number of cylinders you need to order with the *Homefill II*.



*APPROXIMATE CYLINDER DURATION IN HOURS & MINUTES BASED ON TANK SIZE AND LITER FLOW SETTING\**

B CYLINDERS						
	1 LITER	2 LITER	3 LITER	4 LITER	5 LITER	6 LITER
FULL	2 HR	1 HR	45 MIN	30 MIN	25 MIN	20 MIN
1/2 FULL	1 HR	30 MIN	20 MIN	15 MIN	12 MIN	10 MIN
1/4 FULL	30 MIN	15 MIN	10 MIN	7 MIN	6 MIN	5 MIN

C CYLINDERS						
	1 LITER	2 LITER	3 LITER	4 LITER	5 LITER	6 LITER
FULL	4 HR	2 HR	1H, 30M	1 HR	50 MIN	45 MIN
1/2 FULL	2 HR	1 HR	45 MIN	30 MIN	25 MIN	20 MIN
1/4 FULL	1 HR	30 MIN	22 MIN	15 MIN	12 MIN	10 MIN

D CYLINDERS						
	1 LITER	2 LITER	3 LITER	4 LITER	5 LITER	6 LITER
FULL	5 HR	2H, 30M	1H, 50M	1H, 15M	1H, 10M	1 HR
1/2 FULL	2H, 30M	1H, 15M	55 MIN	35 MIN	32 MIN	30 MIN
1/4 FULL	1H, 15M	35 MIN	25 MIN	15 MIN	13 MIN	12 MIN

E CYLINDERS						
	1 LITER	2 LITER	3 LITER	4 LITER	5 LITER	6 LITER
FULL	10 HR	5 HR	3H, 45M	2H, 30M	2 HR	1H, 45M
1/2 FULL	5 HR	2H, 30M	1H, 50M	1H, 15M	1 HR	55 MIN
1/4 FULL	2H, 30M	1H, 15M	55 MIN	35 MIN	30 MIN	25 MIN

N/Q TANKS						
	1 LITER	2 LITER	3 LITER	4 LITER	5 LITER	6 LITER
FULL	26 HR	13 HR	10 HR	6H, 30M	5H, 45M	5 HR
1/2 FULL	13 HR	6H, 30M	5 HR	3H, 30M	3 HR	2H, 30M
1/4 FULL	6H, 30M	3H, 15M	2H, 15M	1H, 30M	1H, 15M	1 HR

M TANKS						
	1 LITER	2 LITER	3 LITER	4 LITER	5 LITER	6 LITER
FULL	2D, 8H	1D, 3H	18 HR	14 HR	11 HR	9H, 30M
1/2 FULL	20 HR	14 HR	8 HR	6H, 30M	5 HR	4 HR
1/4 FULL	12 HR	6H, 30M	4H, 15M	3 HR	2H, 30M	2H, 15M

H TANKS						
	1 LITER	2 LITER	3 LITER	4 LITER	5 LITER	6 LITER
FULL	4D, 16H	2D, 7H	1D, 12H	1D, 4H	23 HR	19 HR
1/2 FULL	2D, 2H	1D, 2H	17 HR	13 HR	10 HR	8H, 30M
1/4 FULL	25 HR	12H, 30M	8 HR	6 HR	5 HR	4 HR

*\*Note: it is important to change to a full tank when the indicator needle hits the red zone instead of watching the time frames listed above. These are only estimates.*

Your physician has determined, as a result of your current condition, supplemental oxygen will be of benefit to you and has prescribed the use of supplemental oxygen.

Though oxygen is not a flammable substance and it will not explode or burn, it will aggressively support combustion and cause a fire to burn faster and hotter than normal. Oxygen is a wonderful benefit to those in need of oxygen therapy, but should always be handled with caution.

In order to assist you in using appropriate caution associated with oxygen use, the following information is provided.

- ✓ DO NOT permit smoking or open flames in a room where oxygen is in use or being stored.
- ✓ DO NOT use bedding or clothes made of wool, nylon or synthetic fabrics as these materials have the tendency to produce static electricity. The use of cotton material bedding and clothes will avoid sparks from static electricity.
- ✓ DO NOT permit the use of any spark-producing device, such as spark producing toys. Keep these materials at least five feet away from oxygen source.
- ✓ DO NOT use petroleum products such as petroleum jelly, petroleum based creams or lotions or aerosol sprays in a room where oxygen is in use or being stored.
- ✓ DO NOT use oil, grease or other petroleum based products on oxygen equipment.
- ✓ DO NOT allow oxygen tubing to be covered by bedding, carpet or furniture.
- ✓ DO NOT leave oxygen equipment turned on when not in use.
- ✓ DO NOT store oxygen in an enclosed area, such as a closet or wardrobe.
- ✓ DO NOT abuse or handle oxygen equipment roughly.
- ✓ DO NOT allow children or untrained individuals to handle or operate oxygen equipment.
- ✓ DO NOT attempt repairs on oxygen equipment. Always contact your medical equipment supplier if you have any questions about the condition of your oxygen equipment.
- ✓ DO NOT place oxygen equipment near heaters, stoves, or other sources of heat, open flames or combustible materials.
- ✓ DO NOT touch the frosted fitting or piping of liquid oxygen systems.
- ✓ DO NOT open oxygen cylinder valves too quickly.
- ✓ DO NOT place oxygen cylinders in the trunks of cars.
- ✓ DO NOT leave oxygen cylinders standing unsecured.
- ✓ Be sure the cylinder is secured in a pouch, use a cylinder stand, chain, rope or other device to keep the cylinder from falling over. 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.
- ✓ DO NOT use oxygen while under a hooded hairdryer due to oxygen concentration level.
- ✓ Keep liquid oxygen units upright at all times.
- ✓ Periodically wipe your oxygen equipment off with a damp cloth and a mild household cleaner.
- ✓ If you find yourself in need of moving your oxygen equipment, always contact your medical equipment supplier first for their assistance.

**Safety Data Sheets are available Oxygen. Search by # at [airgas.com](http://airgas.com) or click the links:**

**[Compressed Air](#) (#001043)  
[Refrigerated Liquid](#) (#001190)**

***Above all other concerns, for those individuals prescribed home oxygen therapy,  
DO NOT change the oxygen flow rate prescribed by your physician!***