

# OXYGEN CONCENTRATOR

## **Purpose**

The purpose of an oxygen concentrator is to provide you with supplemental oxygen for breathing. Oxygen is the gas we breathe that makes life possible. The air we breathe is composed of approximately 21% oxygen, with the remainder being other gasses, primarily nitrogen. The oxygen content dispensed from oxygen concentrators is 80 - 95%. Because of its pure form, the oxygen supplied by oxygen concentrators is considered a drug and requires a prescription to be dispensed. The oxygen being supplied to you is in conjunction with the prescription obtained from your physician.

Oxygen service should never be interrupted. Your oxygen concentrator is designed for home use as your primary oxygen source. Every time you are at home, please use your oxygen concentrator as your primary oxygen supply source. Turn off compressed cylinders when using your oxygen concentrator. Always read and abide by all manufacturers' operating instructions. Your oxygen provider is available 24 hours a day if your oxygen supply is insufficient or if your equipment is not functioning properly.

Company:	
Emergency phone number:	

## **Types**

Oxygen concentrators come in three basic types: stationary, portable, and transfilling. This instruction sheet will discuss stationary models. Stationary oxygen concentrators are the most commonly used concentrator in the home. Oxygen concentrators are electrical devices that take in the air from the room and separate out the oxygen from the nitrogen. The oxygen is then pumped out of a regulator and flowmeter so you can select the exact flow prescribed by your doctor. The nitrogen, which is a harmless gas, is vented back into the room. The flowmeter allows you to select the desired delivery rate, which is expressed as liters per minute (LPM).

In some cases a humidifier is added to an oxygen delivery system in order to moisten the dry oxygen gas. Humidifiers are usually only provided for higher oxygen flows. If you are using a humidifier, please follow the instructions on the Oxygen Humidifier Patient Education Sheet.

All oxygen concentrators are supplied as part of a treatment plan from your physician. Your physician's treatment plan includes the following oxygen prescription:

At rest \_\_\_\_\_ liters per minute.  
During exercise \_\_\_\_\_ liters per minute.  
While sleeping \_\_\_\_\_ liters per minute.  
Use for \_\_\_\_\_ hours per day.

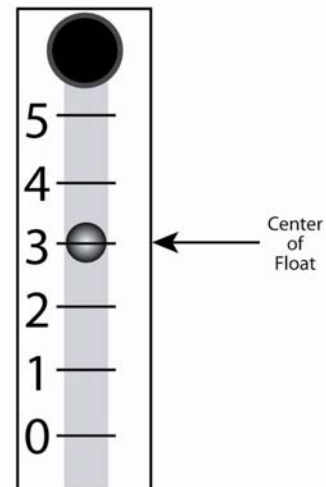
## Use

The most important part of using your oxygen concentrator is to understand your oxygen prescription and use the oxygen only as prescribed by your physician. Do not deviate from the prescription documented on the previous page without first contacting your physician and then contacting your oxygen supplier. Too much oxygen can be harmful.

Your oxygen concentrator should be placed in the room in which it will be used most often. Your oxygen concentrator can be rolled into different rooms as needed. When deciding on placement, do not place the oxygen concentrator in a closet or a small enclosed space where ventilation is limited. Your oxygen concentrator needs to be in a well-ventilated space. To prevent the obstruction of air intake, the oxygen concentrator should be placed at least 6 inches from any wall, draperies, furniture, or other objects.

The oxygen concentrator should be plugged into a grounded electrical outlet. Attach the humidifier to the flowmeter if your oxygen supplier has provided one. If no humidifier is used, twist on the oxygen tubing connector. Connect the oxygen connection tubing. It is not recommended to have more than 50 feet of crush-proof oxygen tubing. Your oxygen delivery device, usually a nasal cannula, can be connected. Turn on the power and wait for the oxygen concentrator to illuminate showing that it is operational. Turn the flowmeter control knob to the oxygen flow prescribed by your physician. You read the oxygen flow setting from the center of the float. You should be able to feel the oxygen flow coming out of your oxygen device. You may now put on the oxygen delivery device.

Flowmeter



Do not use the oxygen concentrator while bathing. Oxygen concentrators are electrical devices. Portable compressed cylinders should be used instead of an oxygen concentrator when around water. Oxygen concentrators do make minimal noise that can irritate some people.

Some oxygen concentrators have internal oxygen sensors that constantly analyze the purity of the oxygen produced and will alarm if this purity level decreases below preset factory standards. If this alarm does sound, begin using your portable compressed cylinders and contact your oxygen supplier immediately.

If your home encounters a power failure while using the oxygen concentrator, turn the oxygen concentrator's power switch to the off position and begin using your portable compressed cylinders. When the power comes back on you may turn your concentrator back on and resume use. If your oxygen concentrator will not power on after a power failure it is usually because the circuit breaker inside the concentrator was tripped. Press the reset button and the oxygen concentrator should power on.

## Safety

The safe use of an oxygen concentrator requires it to be used as instructed, which includes the following safety precautions:

- Ensure that there is a functional smoke detector in the residence. Contact your local fire department to see what the legal requirements are for smoke detectors in the home.
- Ensure that oxygen delivery tubing is routed and secured so that it does not become entangled and/or damaged.
- Ensure that there are “No Smoking” signs displayed on all home entry doors.
- Ensure that the oxygen concentrator is positioned at least 6 inches from any wall, draperies, furniture, and any other objects.
- Ensure that air intake areas are kept free from obstruction.
- Ensure that oxygen delivery equipment is kept dust-free.
- Keep all flammable materials away from the oxygen source, especially oil, grease, solvents, creams, lotions, petroleum products, paper, fabric, aerosol containers, and alcohol. Oxygen is not flammable, but it will make a fire burn hotter and faster.
- Keep all devices that are electrically powered, or can produce sparks, at least 5 feet away from the oxygen delivery device.
- Never add, remove, or disable any feature, part, or function of your oxygen system.
- Never allow any untrained person or child to touch or manipulate your oxygen equipment.
- Do not allow any smoking or flames in the room where oxygen is being used.
- Do not cook with a gas stove when oxygen is in use.
- Do not use Nylon®, wool, or any synthetic material for clothing or bedding; cotton is the preferred material.
- Do not try to fix, repair, or lubricate the oxygen delivery system.
- Do not use an extension cord when connecting the oxygen concentrator.
- Do not under any circumstances, cut or remove the round grounding plug from the power cord plug.
- Do not use any three (3) prong to two (2) prong electrical adapters.
- Do not plug into an electrical outlet controlled by a light switch.

In order to ensure care and provide operator safety, make sure you follow these safety guidelines:

- Use nightlights to increase vision around areas of use.
- Wipe up any water or slippery floor spills.
- Remove tripping hazards (loose floorboards, uneven floors, throw rugs, extension cords, clutter, etc.)
- Install grab bars, use bath mats with suction cups, and use an elevated toilet seat to prevent falls.

## ***Maintenance***

Keep your oxygen equipment clean and dust-free by wiping down with a damp cloth. Never use anything but a damp cloth to keep your equipment clean. Only qualified repair technicians should diagnose, perform maintenance, or repair any part of your oxygen delivery system. Call your oxygen provider if your oxygen delivery system is not functioning properly.

Each concentrator has filters that are located on the exterior of the unit. These filters are washable and should be cleaned at least weekly. The filters are reusable foam and should be removed from the concentrator and cleaned with a vacuum cleaner or washed in warm soapy water, rinsed thoroughly, and dried before replacing.

Your oxygen supplier will also schedule visits to change internal filters and check the purity with a specialized analyzer. Each oxygen concentrator is also equipped with a meter that records the duration of use. Your oxygen supplier will document this hour reading. The hour reading is used to schedule routine maintenance and can also be used to review your compliance with your prescribed oxygen treatment plan.