

Cimarron Medical Services

Home Oxygen Manual

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Introduction to Home Oxygen Therapy

Your physician has determined that supplemental oxygen is a benefit to you and has prescribed an oxygen system to be used at a specific flow to meet your particular needs. **CHANGES TO YOUR FLOW SETTINGS SHOULD ONLY BE MADE UNDER THE ADVICE OF YOUR PHYSICIAN.**

Home Oxygen Therapy

More people are using oxygen therapy outside the hospital, permitting them to lead active, productive lives. People with COPD (chronic obstructive pulmonary diseases), occupational lung disease, lung cancer, congestive heart failure, or other chronic or acute lung disorders may use oxygen therapy at home.

The air you breathe every day contains 21% oxygen. The oxygen you will receive at home is closer to 100% oxygen. Home oxygen is considered to be a drug and must be prescribed by your doctor. Oxygen is not addictive and causes no side effects when used as prescribed. Some people may need supplemental oxygen continuously, while others may only need oxygen during exercise or sleep.

Oxygen Concentrator

The oxygen concentrator is an electric oxygen delivery system on wheels. The concentrator extracts some of the room air and separates the oxygen from the other gases in the air. Oxygen is then delivered to you through tubing attached to a nasal cannula. The concentrator should be used while inside your home. Up to 50 feet of tubing can be added to allow you to move about. Concentrators are one of the most common home oxygen systems. Advantages are minimal maintenance needed, does not need to be refilled, and can be moved easily to another room if necessary.



Using Your Concentrator

Position your unit near an electrical outlet in the room where you spend most of your time. The unit should be at least 6 inches from the walls, draperies, or any other objects that might prevent flow of air in and out of your concentrator.

Note: Do not connect to an electrical outlet controlled by a wall switch. No other appliances should be plugged into the wall outlet. Avoid using extension cords if possible.

- 1) Turn on your concentrator (On/Off power switch located on front of unit). Expect to hear alarm for approx. 5 seconds. If you hear this alarm at any other time, your concentrator may be malfunctioning; refer to the troubleshooting part of this book or contact Cimarron Medical Services if needed.



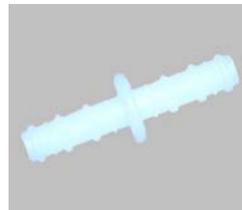
Flow Meter

- 2) Adjust the flow meter to your prescribed flow rate (i.e. if your orders are 2 liters per minute, turn your knob until the black ball is in the middle of the line next to the two)



Green Connector

- 3) Attach tubing to green connector on concentrator. Push in clear barbed oxygen connector at opposite end of tubing. Attach nasal cannula to barbed connector.

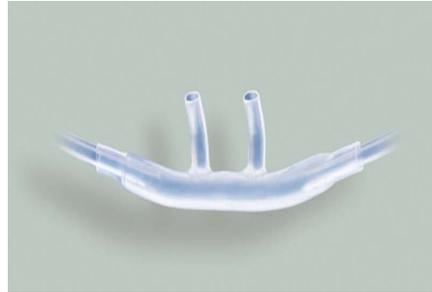


Clear Barbed Connector

Nasal Cannula

A nasal cannula is the most frequently used oxygen accessory. It consists of two prongs that rest in your nose. These prongs are attached to tubing that is placed behind your ears and secured under your neck. When you use your oxygen, you will feel the oxygen enter your nose through the curved prongs. Nasal cannulas can be worn while eating, drinking or talking.

- 1) Attach the cannula to the connector and adjust the flow rate as prescribed by your doctor. DO NOT CHANGE YOUR OXYGEN FLOW RATE WITHOUT CONSULTING WITH YOUR PHYSICIAN. If your physician changes your flow rate contact Cimarron Medical immediately.



- 2) Place the two prongs into your nostrils, making sure that the prongs are curved downward.
- 3) Place the tubing behind your ears.
- 4) Tighten the slide comfortably under your chin.



Humidifier Use

If you develop any dryness or nose bleeds from oxygen therapy, you may need to attach a water humidifier to your concentrator. This will add moisture to the oxygen.

- 1) Where the tubing attaches to green connector on the concentrator, pull from machine. Unscrew the green connector from the oxygen outlet on the concentrator.
- 2) Fill humidifier bottle with **distilled water only**. Do not fill past the maximum indicator on the bottle. This could cause water to flow into your tubing. **Make sure the lid is on tight and not cross-threaded.**
- 3) Thread the wing nut on top of the humidifier bottle to the oxygen outlet on the concentrator. Again making sure it is securely tightened and not cross-threaded.
- 4) Attach the oxygen tubing directly to the humidifier bottle outlet fitting.
- 5) If humidity is added to the oxygen, a water trap should be added between the tubing and the nasal cannula (nose piece). Empty water trap, if needed, by removing the white end cap. Water traps should prevent water from blowing up into your nostril. The trap should lay flat on the floor to ensure proper function.
If dryness still exists, use a water based solution like, KY Jelly or Roezet inside your nose.
- 6) If any soreness develops on ears, ear guards are available on request.



Humidifier Bottle



Bottle Attached to Concentrator



Water Trap

Oxygen Cylinder (tank)

A cylinder is a tank that contains oxygen under pressure. Due to the high pressure involved, cylinders are made of aluminum or steel and must be handled carefully.

Oxygen cylinders come in several sizes. The most common sizes are E, C, and B tanks. The only differences between the tanks are their size and amount of oxygen they contain.

E Cylinders: These cylinders are about 2.5 feet tall and weigh about 18 pounds when full. They can be moved easily with a rolling cart. An E cylinder is provided as a backup for the concentrator in case there is a system or power failure. Advantages are they last longer than the B or C tanks and can be used for trips away from home. A disadvantage of the E tank is that they are a little heavier in comparison to the B or C tanks.



E-Tank

C Cylinders: These tanks are about 1.5 feet tall and weigh about 7 pounds when full. The cylinders come with a carrying case that can be worn over the shoulder and are for short trips outside of the house. (i.e. grocery store, doctor appointments, etc.)



C-Tank

B Cylinders: The B tanks are the smallest of the cylinders. They are also about 1.5 feet tall, but only weigh 5.5 pounds when full. A disadvantage to these tanks is that they will not last as long as the C tank.



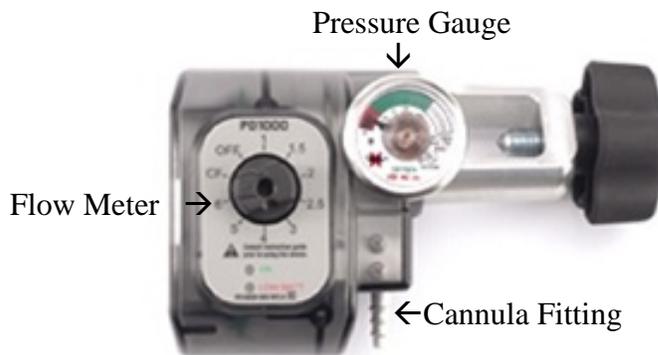
B-Tank

Regulators and Conserving Devices

A **REGULATOR** (or a conserving device) is needed for operation of your oxygen cylinder. A regulator reduces the pressure coming out of an oxygen cylinder to obtain a specific flow rate. A regulator consists of a flow gauge and pressure gauge. The pressure gauge indicates the pressure of oxygen in the cylinder. A full cylinder should read approximately 1800 psi (the needle should be in the green area). As you use the oxygen in your cylinder, the pressure will drop; how quickly the pressure drops depends on the flow rate. When the pressure gauge reads low, approximately 500 psi (the needle in the red area), it is time to change your tank for a full one. The regulator provides oxygen at a continuous flow and does not require any batteries for use.



Oxygen **CONSERVING DEVICES** are very popular. Conservers are similar to regulators except instead of running continuously they pulse when you breathe in through your nose. The major advantage with these is the tanks will last much longer than with a regulator. Most of these devices require batteries to operate.



Preparing and Using Your Oxygen Cylinder (Tank)

You will need the following equipment to prepare your cylinder for use:

- ▶ Cylinder
- ▶ Regulator or Conserving Device
- ▶ Cylinder wrench (key)
- ▶ Nasal cannula

Note: If your cylinder has a regulator or conserving device already attached; disregard steps 1-4.

- 1) Carefully remove the seal from the cylinder neck.
- 2) Notice the 3 holes on the neck of the cylinder. These holes are only located on one side.
- 3) Place the regulator (or conserver) over the cylinder. Align the three prongs on the regulator/conservar with the three holes on the cylinder neck.
- 4) Tighten the handle on the regulator/conservar until it is firmly attached
- 5) Attach your cylinder wrench to the top of the cylinder. Turn the wrench slowly counter-clockwise (to left) one full turn to open the cylinder. You should see the needle on the pressure gauge read “full” at this point.
- 6) Adjust the flow rate by turning the flow knob until you reach your desired prescription rate.
- 7) Attach your nasal cannula to the flow outlet.
- 8) To turn your oxygen off, attach your cylinder wrench to the top of the tank and turn clockwise (to the right) until it stops.



Tighten Knob ↑



Oxygen Safety Guidelines

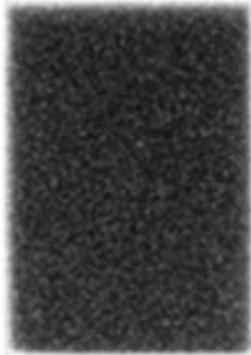
Oxygen is a safe gas as long as it is used properly. Oxygen supports combustion so any material that is already burning will burn much faster and hotter in an oxygen-enriched atmosphere. It is very important to follow these precautions so that you and your family are safe when you are using your oxygen.

1. Do not smoke or allow others to smoke in the same room as your oxygen concentrator or cylinders.
2. Post yellow “No Smoking” signs in your home (ex. Front door, back door, or side window).
3. Keep the following **at least five feet away** from an oxygen source:
 - burning candles
 - open flames
 - gas stoves
 - electrical appliances
 - any item or equipment that may spark
4. Do not use aerosols near oxygen equipment.
5. Do not use oil or lubricants on oxygen equipment.
6. Smoke detectors, fire extinguishers and flashlights in the home and working properly are highly recommended.
7. If you use an oxygen concentrator, 1) notify your fire department and 2) notify your electric company so you will be given priority if there is a power failure.
8. Turn your oxygen off when not in use.
9. Do not store oxygen cylinders in heat or direct sunlight.
10. Secure oxygen cylinders properly in appropriate stands to prevent tipping or place them on their side on the floor.
11. Always store your oxygen concentrator and tanks in a well-ventilated area.
Placement in a closed closet or car trunk would not provide adequate ventilation.
12. Oxygen tanks should not be left in vehicles or garages during extreme heat.
13. When driving, secure the oxygen unit so it will not tip over. Leave a window open slightly for ventilation so the oxygen will not accumulate in the car.
14. Be careful to not trip on oxygen tubing while using your oxygen concentrator.
15. **Do not ever change the flow of oxygen unless directed by your physician.**
16. Do not use petroleum products (ex. Vaseline). Use water-based lubricants (ex. KY Jelly).

Cleaning and Maintenance Instructions

Once a Week:

- ▶ Unplug the unit and wipe down the concentrator with a damp cloth
- ▶ Remove the filter out of the back of concentrator. Rinse with warm, soapy water and remove excess water with a soft absorbent towel. A clean filter will prevent the concentrator from over-heating.
- ▶ Wash out humidifier bottle with warm, soapy water and refill it with clean distilled water. NOTE: Humidifier bottles can be disinfected by soaking in a vinegar solution with ½ vinegar and ½ water. Let soak for 30 minutes, rinse thoroughly, and let air dry.



Foam Filter



Humidifier Bottle

Every 2 Weeks

- ▶ Replace Nasal cannula (nose piece), oxygen mask or trach mask

Every 3 Months

- ▶ Replace Oxygen Tubing
- ▶ Replace Humidifier Bottle (if applicable)
- ▶ Replace Water Trap (if applicable)

Note: Routine changing of oxygen disposables prevents bacteria from growing.

Suggestion: Write on calendar to keep track of when to replace supplies.

Safe Practices for Handling Oxygen Equipment

Oxygen – used for medical reasons – should be handled carefully. Although oxygen does not burn, it supports combustion. Materials that can burn are ignited more readily and burn more rapidly in the presence of oxygen. Metal cylinders are used to store oxygen under high pressure.

To prevent injury or damage:

DO

Store tanks on their side in clean, dry locations away from direct sunlight, extreme heat or high traffic areas.



DO NOT

1. Store cylinders in closets
2. Store cylinders under beds
3. Store cylinders in an unsecure upright position
4. Store cylinders in car trunk/bed of truck

Keep Cylinders away from open flames or extreme heat sources



Never allow smoking around Oxygen Equipment

