Oxygen Use at Home

Oxygen can be prescribed for home use. The prescription will show the flow rate. This is how much oxygen is to be used per minute. This will be listed in liters per minute (LPM or L/M). A liter is a metric measurement of volume.

You will use oxygen therapy as directed. It can be used while exercising, sleeping, or at rest. You may need oxygen continuously. Your caregiver may order a blood oxygen test (*arterial blood gas or pulse oximetry test*) that will show what your oxygen level is. Your caregiver will use these measurements to learn about your needs and follow your progress.

Home oxygen therapy is commonly used on patients with various lung (*pulmonary*) related conditions. Some of these conditions include:

- Asthma.
- Lung cancer.
- Pneumonia.
- Emphysema.
- Chronic bronchitis.
- Cystic fibrosis.
- Other lung diseases.
- Pulmonary fibrosis.
- Occupational lung disease.
- Heart failure.
- Chronic obstructive pulmonary disease (COPD).

3 COMMON WAYS OF PROVIDING OXYGEN THERAPY

- **Gas:** The gas form of oxygen is put into variously sized cylinders or tanks. The cylinders or oxygen tanks contain compressed oxygen. The cylinder is equipped with a regulator that controls the flow rate. Because the flow of oxygen out of the cylinder is constant, an oxygen conserving device may be attached to the system to avoid waste. This device releases the gas only when you inhale and cuts it off when you exhale. Oxygen can be provided in a small cylinder that can be carried with you. Large tanks are heavy and are only for stationary use. After use, empty tanks must be exchanged for full tanks.
- **Liquid:** The liquid form of oxygen is put into a container similar to a thermos. When released, the liquid converts to a gas and you breathe it in just like the compressed gas. This storage method takes up less space than the compressed gas cylinder, and you can transfer the liquid to a small, portable vessel at home. Liquid oxygen is more expensive than the compressed gas, and the vessel vents when not in use. An oxygen conserving device may be built into the vessel to conserve the oxygen. Liquid oxygen is very cold, around 297º below zero.
- **Oxygen concentrator:** This medical device filters oxygen from room air and gives almost 100% oxygen to the patient. Oxygen concentrators are powered by electricity. Benefits of this system are:
  - It does not need to be resupplied.
  - It is not as costly as liquid oxygen.
  - Extra tubing permits the user to move around easier.

There are several types of small, portable oxygen systems available which can help you remain active and mobile. You must have a cylinder of oxygen as a backup in the event of a power failure. Advise your electric power company that you are on oxygen therapy in order to get priority service when there is a power failure.

OXYGEN DELIVERY DEVICES

There are 3 common ways to deliver oxygen to your body.

- **Nasal cannula.** This is a 2-pronged device inserted in the nostrils that is connected to tubing carrying the oxygen. The tubing can rest on the ears or be attached to the frame of eyeglasses.
- **Mask.** People who need a high flow of oxygen generally use a mask.
- **Transtracheal catheter.** Transtracheal oxygen therapy requires the insertion of a small, flexible tube (*catheter*) in the windpipe (*trachea*). This catheter is held in place by a necklace. Since transtracheal oxygen bypasses the mouth, nose, and throat, a humidifier is absolutely required at flow rates of 1 LPM or greater.

SAFETY ISSUES

- **Never smoke while using oxygen.**
- Oxygen does not burn or explode, but materials will burn faster in the presence of oxygen.
- Keep a fire extinguisher close by. Let your fire department know that you have oxygen in your home.
- Warn visitors not to smoke near you when you are using oxygen. Put up "no smoking" signs in your home where you most often use the oxygen.
- When you go to a restaurant with your portable oxygen source, ask to be seated in the nonsmoking section.
- Stay at least 5 feet away from gas stoves, candles, lighted fireplaces, or other heat sources.
- **Do not** use materials that burn easily (*flammable*) while using your oxygen.
- If you use an oxygen cylinder, make sure it is secured to some fixed object or in a stand. If you use liquid oxygen, make sure the vessel is kept upright to keep the oxygen from pouring out. **Liquid oxygen is so cold it can hurt your skin.**
- If you use an oxygen concentrator, call your electric company so you will be given priority if there is a power failure. Avoid using extension cords, if possible.

GUIDELINES FOR CLEANING YOUR EQUIPMENT

- Wash the nasal prongs with a liquid soap. Thoroughly rinse them once or twice a week.
- Replace the prongs every 2 to 4 weeks. If you have an infection (cold, pneumonia) change them when you are well.
- Your caregiver will give you instructions on how to clean your transtracheal catheter.
- The humidifier bottle should be washed with soap and warm water and rinsed thoroughly between each refill. Air-dry the bottle before filling it with sterile or distilled water. The bottle and its top should be disinfected after they are cleaned.
- If you use an oxygen concentrator, unplug the unit. Then wipe down the cabinet with a damp cloth and dry it daily. The air filter should be cleaned at least twice a week.
- Follow your home medical equipment and service company's directions for cleaning the compressor filter.

HOME CARE INSTRUCTIONS

- **Do not** change the flow of oxygen unless directed by your caregiver.
- **Do not** use alcohol or other sedating drugs unless instructed. They slow your breathing rate.
- **Do not** use materials that burn easily (*flammable*) while using your oxygen.
- Always keep a spare tank of oxygen. Plan ahead for holidays when you may not be able to get a prescription filled.
- Use water-based lubricants on your lips or nostrils. **Do not** use an oil-based product like petroleum jelly.
- To prevent your cheeks or the skin behind your ears from becoming irritated, tuck some gauze under the tubing.
- If you have persistent redness under your nose, call your caregiver.
- When you no longer need oxygen, your doctor will have the oxygen discontinued. Oxygen is not addicting or habit-forming.
- Use the oxygen as instructed. Too much oxygen can be harmful and too little will not give you the benefit you need.
- Shortness of breath is not always from a lack of oxygen. If your oxygen level is not the cause of your shortness of breath, taking oxygen will not help.

SEEK MEDICAL CARE IF:

- You have frequent headaches.
- You have shortness of breath or a lasting cough.
- You have anxiety.
- You are confused.
- You are drowsy or sleepy all the time.

- You develop an illness which aggravates your breathing.
- You cannot exercise.
- You are restless.
- You have blue lips or fingernails.
- You have difficult or irregular breathing and it is getting worse.
- You have an oral temperature above 102° F (38.9° C).

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