

Home Oxygen

Oxygen is a gas that has no color, odor or taste. Our bodies do not store it. Instead, we use the oxygen from every breath we take. You need a good supply of oxygen to the blood to protect your heart and brain. Your doctor will explain why you need extra oxygen.

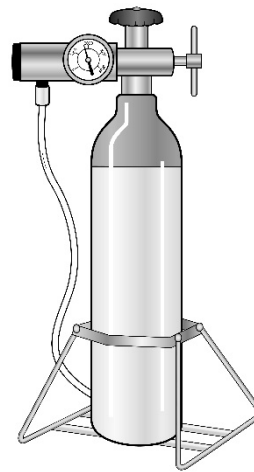
There are two types of oxygen systems to use in the home: an oxygen tank, and an oxygen concentrator.

Using a Home Oxygen System

- You need a doctor's order or prescription to get oxygen and equipment.
- Oxygen is about 21% of the total amount of air we normally breathe. When someone receives extra oxygen, they are breathing it at an amount greater than 21%.
- The doctor's order will tell you what the liter flow setting will be. The order will also tell you when to use the oxygen, and how it will be given to you.
- **You must use the oxygen the way the doctor has ordered it. Do not change the flow rate without talking to your doctor. Too much or too little can cause harm.**
- Oxygen can be added to the heated mist system, ventilator, cough assist, or the resuscitation bag. We will show you how to add it.

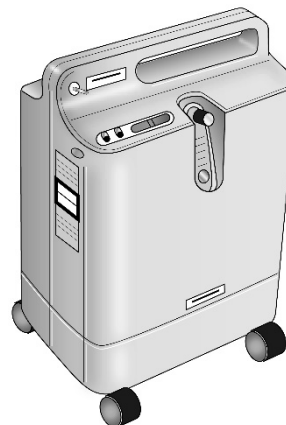
Oxygen Tank

This system is portable and can be used when not at home. The oxygen is in a tank under high pressure. The tank must be in a stand to keep it safe. A regulator valve is attached to the top of the tank. It controls the flow of oxygen from the tank to you. The tank holds a set amount of oxygen based on the size of the tank and the ordered flow rate that you need to use.



Oxygen Concentrator

This is a machine that provides oxygen by sending air into the room through filter beds. The unit is electric and provides oxygen only while the machine is running.



Oxygen Safety

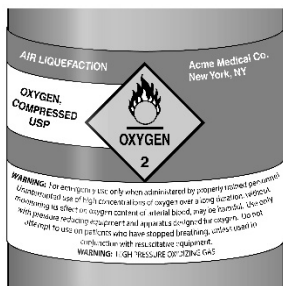
Three things are needed to start a fire: heat, an item that will burn, and oxygen. While oxygen itself does not burn or explode, higher amounts of it in the air will make things burn hotter and faster.

- Oxygen must be kept away from sparks, heat sources or open flames.
- "Oxygen in Use" signs should be posted at the entrance to your home. The equipment provider will give you the signs.
- **Do not** allow smoking in the room where it is stored or used.
- Matches, cigarette lighters, electronic cigarettes, candles, sparking toys, or any electric equipment that gets hot, smokes or sparks, can start a fire. These things **should not** be near where it is being used or stored.
- ****People wearing oxygen should not** be near gas stoves or open flames, even if their tank or concentrator is in another room.

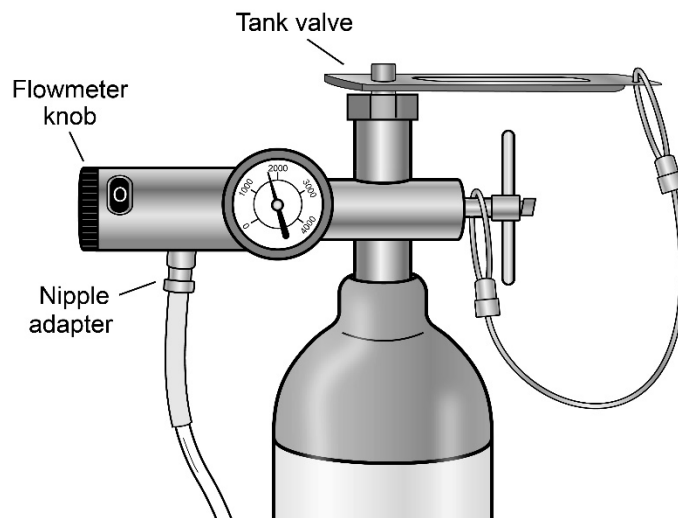
Things will burn more easily where oxygen is used. Flammable things, such as oil or grease, **should not** be used around an area where there is oxygen. You should also avoid hair oils, ointments, or anything that contains petroleum products. Do not use Vaseline®. Use a water-based lubricant, such as Ayr Nasal Gel® or K-Y® jelly instead.

How to Use an Oxygen Tank

1. Always check the label on each tank used to be sure that it contains oxygen.
2. If the label does not say oxygen: do not use it.



3. Using the wrench you were given, slowly open the **valve** on the top of the tank. Turn the valve counter-clockwise one complete turn. The needle on the pressure gauge will show the amount of pressure in the tank. Listen and feel for any leaks. If you hear or feel any leaks, turn the valve off and contact your provider. **If you are learning to use the tank at the hospital, let your nurse or respiratory therapist know that there is a leak. Do not leave the unit unless you are sure that everything is working as it should.**
4. Attach the tubing to the tapered **nipple adapter** on the flowmeter. Make sure the tubing is not kinked or cut.
5. Adjust the **flowmeter knob** to the ordered liter flow.
6. The **tank valve** and **flowmeter knob** should be turned off when not in use. Turn the tank off by turning the **valve** clockwise. Let the regulator bleed off the gas left in it after turning it off. This keeps the needle from being damaged from the pressure.



Safety and Handling Guidelines

Follow these safety rules:

- **Do not** smoke if you are using oxygen.
- **Do not** allow anyone to smoke in the room where it is being used or stored.
- Tanks should be stored upright in a tank cart or lying flat on the floor. **Do not** use beds or movable objects to hold up tanks.
- Keep at least 10 feet away from any heat source (fireplace, E-cigarette, stove, radiator) to prevent fires.
- Keep tanks away from extreme cold as cold metal may cause frostbite on bare skin.
- **When bringing the tanks in your car, they should be secured in the back seat, on the floor. They should be padded to prevent rolling and to protect the tank stem from damage. Never travel with a tank in the front seat of the car.**
- If oxygen is being used in the car, open a window one inch to prevent it from building up.
- Each new tank has an O-ring in the dust cap. If it is one color, it is not the correct O-ring. The correct O-ring has two colors. Please be sure the O-ring is black and gold or green and gold.
- Each new tank always uses just one O-ring when it connects the regulator to the oxygen tank.
- A full tank has about 2000 PSI or pounds of pressure in it. Read the pressure on the gauge. The table below tells you about how long a full tank of oxygen will last at certain flow settings.

| Flow Rate | A – cylinder | D – cylinder | E – cylinder | M60 - cylinder |
|-----------|--------------|--------------|--------------|----------------|
| .25 | 11.4 hours | 21.2 hours | 37.2 hours | |
| .5 | 5.7 hours | 10.6 hours | 18.6 hours | |
| 1 | 2.8 hours | 5.3 hours | 9.3 hours | 28.2 hours |
| 2 | 1.4 hours | 2.6 hours | 4.6 hours | 14.2 hours |
| 3 | 1.0 hours | 1.7 hours | 3.1 hours | 9.4 hours |
| 4 | 42 minutes | 1.3 hours | 2.3 hours | 7 hours |
| 5 | 34 minutes | 1.0 hours | 1.8 hours | 5.6 hours |

Your health care team may have given you this information as part of your care. If so, please use it and call if you have any questions. If this information was not given to you as part of your care, please check with your doctor. This is not medical advice. This is not to be used for diagnosis or treatment of any medical condition. Because each person's health needs are different, you should talk with your doctor or others on your health care team when using this information. If you have an emergency, please call 911. Copyright © 12/2024 University of Wisconsin Hospitals and Clinics Authority. All rights reserved. Produced by the Department of Nursing. HF#7851