EDUCATION
(LARGE PRINT)

Stacked Home Oxygen System

Allina Health

Common Problems

- Make sure the system is plugged into an electrical outlet. If the outlet is on a switch, the switch needs to be on to power the outlet.
- If your alarm is going off for more than 60 seconds, make sure:
  - — the oxygen concentrator is plugged in and you have electricity
  - — the filter(s) are clean
  - — the oxygen concentrator is not next to the wall or a heat register.
- Check to make sure the tank (cylinder) is turned off.
- Is air flowing out from the nosepiece? You can check by doing one or both of the following.
  - — Lick your lips. Hold the nosepiece about 1 inch from your lips. You should feel air blowing.
  - — Place the nosepiece in a glass of water.
    - If you see bubbles, it is working properly.
    - If you do not see bubbles, check the tubing for "kinks." The tubing may need to be replaced.

Call your oxygen supplier if you are still having problems and use your backup tank.

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Oxygen Safety

Your health care provider has prescribed oxygen to help your heart and lungs work better. Oxygen is safe if you use it correctly. Your health care provider has chosen a specific dosage. Follow your health care provider's directions carefully. The following are guidelines for oxygen safety.

Fire hazards

- Oxygen is not flammable. It will not start on fire by itself. When it mixes with flammable materials, it will help them burn hotter and faster.
- Oxygen will be in the air around you. Keep all flammable materials away from your oxygen concentrator.
- Do not use your oxygen around open flames, matches, stoves, barbecues or space heaters.
- If you smoke, you must be off oxygen for 15 minutes before smoking. It takes that long for the oxygen to leave your clothing, hair and skin.
- Stay at least 8 feet away from someone who is smoking.
- Keep the oxygen unit away from oil, grease or aerosol sprays.
- Be careful around anything that creates a spark (hair dryer, electric razor, kitchen appliances).

- Do not:
  - — leave the oxygen concentrator on while you are not using it
  - — leave the cannula in your bed or under furniture cushions.

    Doing so could cause a fire if there is a spark or flame.
- Hang the "no smoking sign" (given to you by the person who set up your system) on the outside of the main entrance to your home or apartment unit.

Personal safety

- Never use petroleum-based products (petroleum jelly, diaper rash cream) in and around your nose. Mixing these with oxygen may cause burns. Instead, use water-based products and gels (lubricants).
- Call your oxygen supplier if your alarm goes off or if you have equipment problems.
- **Call 911 right away if you have chest pain, breathing problems or another medical emergency.**

Handling and storing high-pressure tanks

- Oxygen is usually stored in heavy tanks. Be careful not to tip it over. Keep your tank in the stand or cart you were given.
- **Do not** use the regulator as a handle for moving the tank.
- Do not store the tank:
  - — with your cleaning products
  - — near flammable materials, a heat source or flame
  - — in an area without air flow such as a closet
  - — in the trunk of a car.
- Secure your tanks when in a moving vehicle. This will keep the tanks from tipping or falling.

Oxygen concentrator safety

You may get your oxygen from an electrical device called an oxygen concentrator. Even though the oxygen concentrators do not store oxygen, you still must follow all safety guidelines.

- Plug the oxygen concentrator into a properly grounded outlet.
- Do not use extension cords. Put the oxygen concentrator as close to the outlet as you can.
- Do not plug the concentrator into a power strip or the same outlet as another high-power device (TV, computer, refrigerator).

- Allow for at least 12 inches of clearance around the oxygen concentrator. This will make sure it is working well.
- Always unplug the power cord before cleaning.
- In case of power failure, alarm or oxygen concentrator failure, you should have a backup supply of oxygen.
- Do not use the oxygen concentrator if the power cord is damaged or does not fit well into the outlet.
- Do not use the oxygen concentrator if the outlet, power cord or plug feels warm.

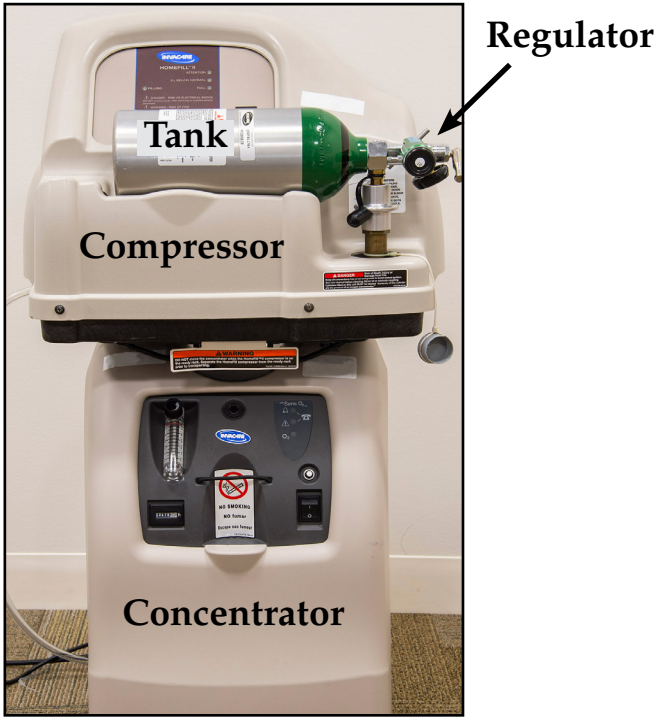
Stacked Home Oxygen System

A stacked home oxygen system is a machine that provides oxygen therapy or allows you to refill your tanks, or both. It is powered by plugging into an electrical outlet.

Parts of the System

The four main parts of the home oxygen system include:

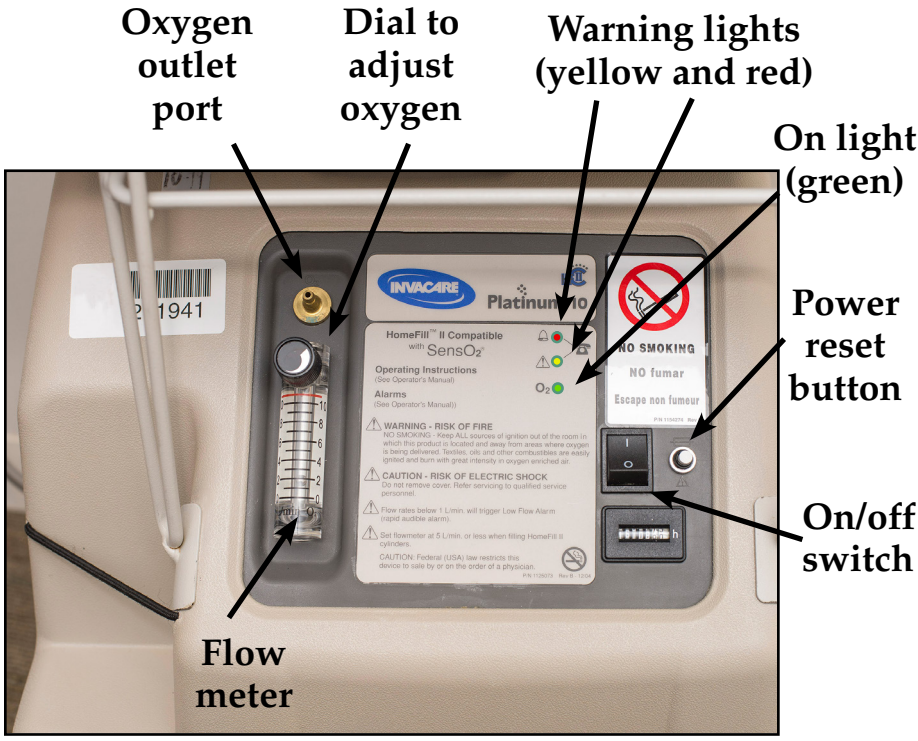
- **concentrator:** takes in air from the room, filters it and delivers oxygen to the compressor and your nose
- **compressor:** takes in oxygen from the concentrator and compresses it to fill the tank
- **tank:** holds the oxygen. The tank will provide oxygen for you when you are away from home.
- **regulator:** delivers the amount of oxygen prescribed for you by your health care provider.



The four main parts of a home oxygen system.

Parts of the concentrator

The parts of the concentrator are labeled below.



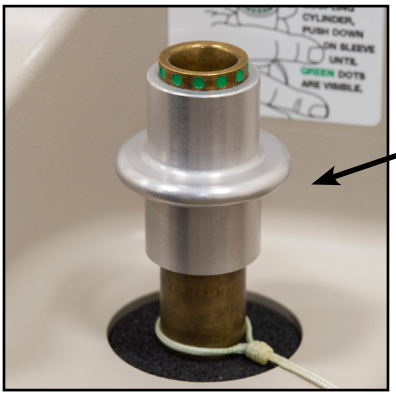
All photos © Allina Health System

The parts of a concentrator.

Parts of the compressor

The parts of the compressor are labeled below.

The parts of a compressor.



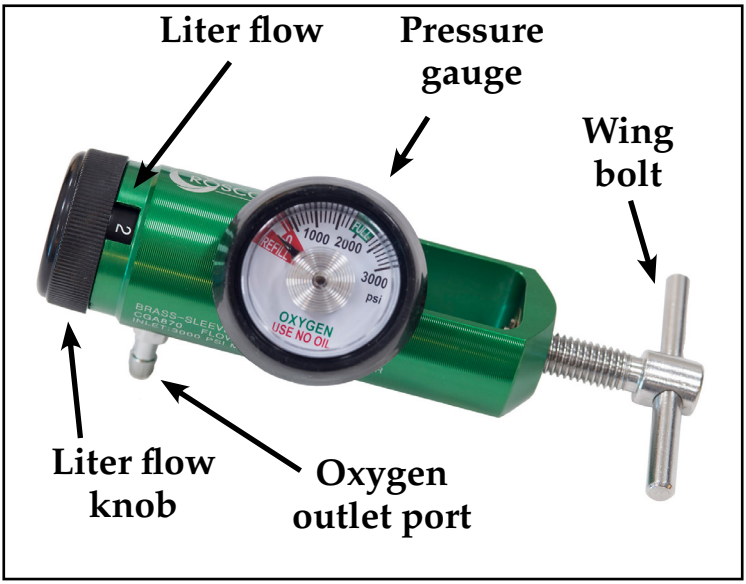
Parts of the tank

The parts of the tank are labeled below.

The parts of a tank.

Parts of the regulator

The parts of the regulator are labeled below.



The parts of a regulator.

The two types of regulators are:

- **continuous flow:**
  This provides a constant flow of air. You will be put on continuous flow when you begin oxygen.
- **pulse dose:**
  This provides short bursts of air when you breathe in through your nose. A pulse dose can use a smaller tank that needs to be refilled less often.

Talk with your health care provider if you have questions about changing to pulse dose.

Oxygen tanks

You may have more than one oxygen tank. The size of your tank will depend on your health needs. Tanks are labeled with a letter and number, which relates to the size of the tank and how much oxygen it can hold.

Oxygen tanks are available in the following sizes.

C
2000

D
2000

How Long Your Oxygen Tank Will Last (Continuous Flow)

	1 liter	2 liters	3 liters	4 liters	5 liters	6 liters	Weight full
C 2000	4 hours 6 minutes	2 hours	1 hour 22 minutes	1 hour	49 minutes	41 minutes	3.5 pounds
D 2000	6 hours 53 minutes	3 hours 26 minutes	2 hours 18 minutes	1 hour 43 minutes	1 hour 23 minutes	1 hour 9 minutes	7.5 pounds
*M	2 days 9 hours	1 day 2 hours	16 hours	13 hours	10 hours	8 hours	52.5 pounds

Chart is for reference only. Times are not exact and may vary. Always give yourself a safe reserve of oxygen.

*M is a backup tank and cannot be refilled. Call your oxygen supplier.

*When to Use Your Backup Tank (M)

You may need to use your backup tank if there is a power outage or the equipment stops working properly. To use the backup tank, open the valve by turning it to the left (counterclockwise). Then set the liter flow knob to your prescribed dose.

How to Set Up Your Home Oxygen System

Your home oxygen system should have already been set up by the person (technician) who delivered it. The following steps describe what they did.

Step 1

Place the system (stacked compressor and concentrator) near an electrical outlet, at least 2 feet away from furniture or other objects. Plug them both into the outlet.

Make sure:

- the outlet has power. You can do this by plugging a lamp into the outlet to make sure it lights up.
- they are not plugged into a power strip or plugged into the same outlet as another high-power device (TV, computer, refrigerator).

Step 2

Connect one end of the clear tubing to the back side (bottom) of the concentrator and the other end to the left side of the compressor (when looking from front). (They will "click" into place.) The clear tubing will carry the oxygen from one part of the system to the other.

How to Begin Your Oxygen Therapy

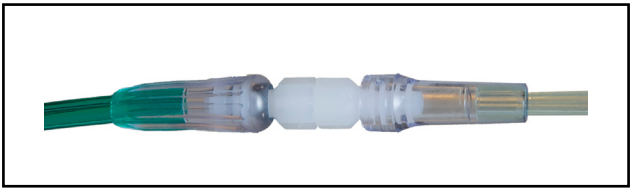
Step 1: Turn on the concentrator. You will hear an alarm sound for about 3 to 5 seconds.

Step 2: Set the flow meter to the liter flow, measured in liters per minute (LPM), your health care provider prescribed for you. The middle of the ball should center on your prescribed LPM. The photo below shows an example of 2 LPM.

Important: Call your oxygen supplier if your health care provider makes a change to your prescribed liter flow. You may need a different concentrator.

Step 3: Connect one end of the oxygen tubing to the oxygen outlet port on the concentrator. Connect the other end of the tubing to the connector.

Step 4: Connect the nosepiece (cannula) to the connector.



Step 5: Put on the oxygen tubing.

— Hold the tubing in front of you, with the nosepiece between your fingers. The tubes that go into your nose should curve down slightly.

— Place the nosepiece into your nose.

— Loop the tubing behind your ears.

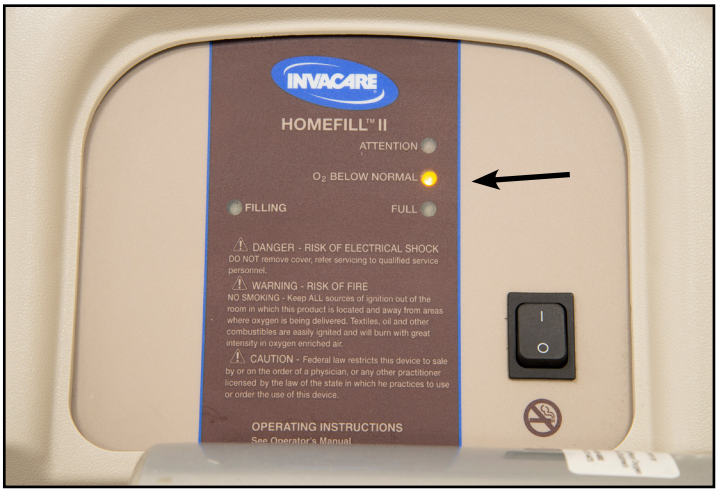
— Adjust the slider under your chin until it fits comfortably and stays in place.

How to Fill Your Oxygen Tank

Step 1: Turn on the concentrator and let it warm up for 10 to 15 minutes before you start filling the tank.

Step 2: While the concentrator is warming up, use the wrench to tighten the tank valve to the right (clockwise). This will turn it off.

Step 3: Turn the compressor on. You will hear an alarm sound for 3 to 5 seconds and see two green, one yellow and one red light turn on.



The yellow light will stay lit when the machine is ready.

Step 4: If your tank and compressor have dust caps (black or gray), remove them. You should see green dots on the side of the release collar. This means the tank is ready to connect to the compressor. Connect the tank by pushing the tank fill connector into the compressor fill connector until you hear a "click."

Green dots

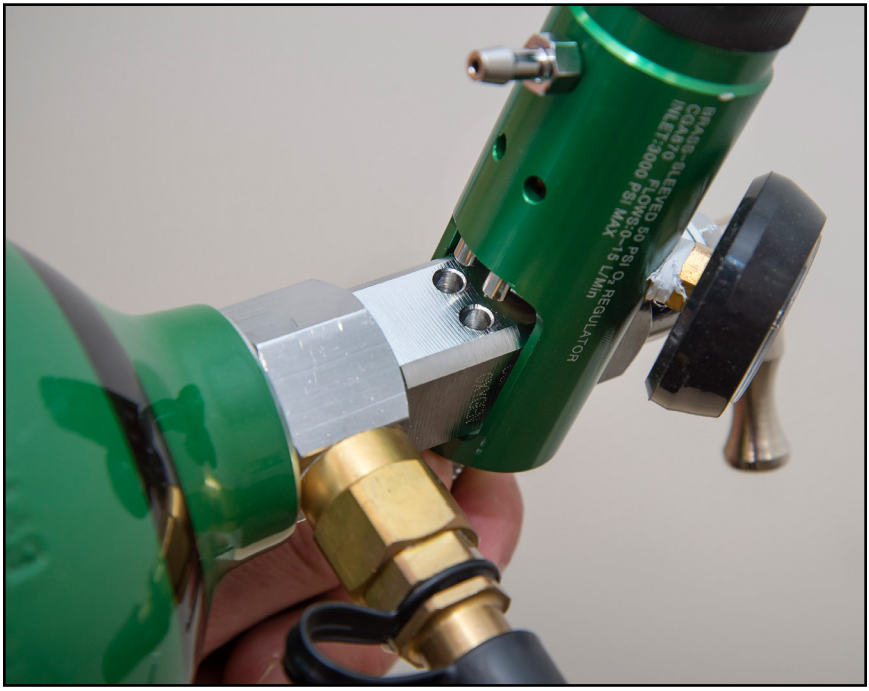
Step 5: The green dots will disappear when the tank is connected properly. The compressor will take about 5 minutes to warm up. After it is warmed up, the tank will begin to fill automatically.

As the tank is filling, a green “filling” light will appear. The tank is full when you see a green “full” light appear. Depending on the size of the tank, it will take 2 to 4 hours to fill.

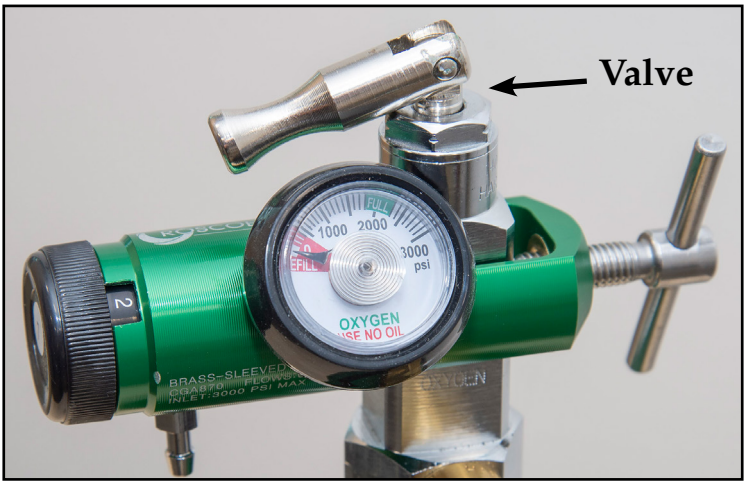
Step 6: When the tank is full, pull down on the release collar.

Release collar

Step 7: Line up the pins of the regulator to the valve of the tank. Tighten the wing bolt by turning it to the right (clockwise). Be sure the regulator is turned off (0 LPM).



Step 8: Use the wrench to open the valve of the tank by turning it to the left (counterclockwise). Check the pressure on the regulator. A full tank is at 2,000 pounds per square inch (PSI). The tank is ready to use.



Step 9: Connect the tubing to the oxygen outlet port on the regulator. Turn the liter flow knob to the liter flow prescribed by your health care provider.

Step 10: Put on the oxygen tubing.

— Hold the tubing in front of you, with the nosepiece between your fingers. The tubes that go into your nose should curve down slightly.

— Place the nosepiece into your nose.

— Loop the tubing behind your ears.

— Adjust the slider under your chin until it fits comfortably and stays in place.

You may have a bag to help carry your tank. The bag can be placed over your shoulder, held by the handle, or secured on a walker or wheelchair.

How to Order More Oxygen Supplies

Call your oxygen supplier to order more oxygen tubing or supplies.

How to Clean the Outside of the Home Oxygen System

- Turn the oxygen system off and unplug it. Make sure to unplug both the concentrator and compressor.
- Use a damp cloth or vacuum to clean the oxygen system and power cords. Do not use any petroleum-based cleaning products. If using a damp cloth, wipe the concentrator and compressor dry.
- Make sure to clean the filters on the back and both sides of the concentrator and compressor by rinsing with warm water or vacuuming. If rinsing, allow to dry before putting back into the system. The oxygen system can overheat if dust collects here.

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