

Oxygen Safety



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This booklet provides general safety information for oxygen concentrators, compressed gas cylinders, oxygen-conserving devices, and liquid oxygen systems used for medical purposes in private homes, apartments and condominiums. It is not meant to answer all questions, but to provide information to our oxygen patients on the most frequent questions, concerns, tips and safety issues.

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Oxygen Safety at Home

Oxygen treatment can be helpful if you have breathing problems. **Use the amount ordered by your doctor** as too much or too little oxygen may be harmful. Do NOT change the amount of oxygen you are using without first checking with your doctor. Talk to your doctor if you feel that you are not getting enough oxygen.

Why is Oxygen Safety Important?

Oxygen makes things burn much faster. Think of what happens when you blow into a fire; it makes the flame bigger. If you are using oxygen in your home, you must take extra care to stay safe.

Follow these important information guides to stay safe in your home and on the go.

1. Have Your Home Ready

Make sure you have working smoke detectors and a working fire extinguisher in your home. If you move around the house with your oxygen, you may need more than one fire extinguisher in different locations.

Smoking can be very dangerous.

- No one should smoke in a room where you or your child is using oxygen.
- Put a "NO SMOKING" sign in every room where oxygen is used. (We have attached a picture at end of this guide for you to print as many copies as you need for your home)
- In a restaurant, keep at least 6 feet (2 meters) away from any source of fire, such as a stove, fireplace, or tabletop candle.

Keep oxygen 6 feet (2 meters) away from:

- Toys with electric motors
- Electric baseboard or space heaters
- Wood stoves, fireplaces, candles
- Electric blankets

- Hairdryers, electric razors, and electric toothbrushes

Be Careful in the Kitchen

Be careful with your oxygen when you cook.

- Keep oxygen away from the stove top and oven.
- Watch out for splattering grease. It can catch fire.
- Keep children with oxygen away from the stove top and oven.
- Cooking with a microwave is OK.

Other Safety Tips

DO NOT store your oxygen in a trunk, box, or small closet.

Keep liquids that may catch fire away from your oxygen. This includes cleaning products that contain oil, grease, alcohol, or other liquids that can burn.

DO NOT use Vaseline or other petroleum-based creams and lotions on your face or upper part of your body unless you talk to your respiratory therapist or doctor first. Products that are safe include:

- Aloe Vera
- Water-based products, such as K-Y Jelly

Avoid tripping over oxygen tubing.

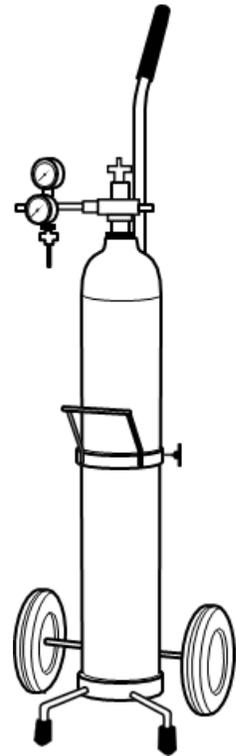
- Try taping the tubing to the back of your shirt.
- Teach children not to get tangled in the tubing.

2. Fire Safety Guidelines

Oxygen itself does not burn. Oxygen can feed a spark and cause it to become a large fire in seconds. To be safe at home, follow these fire safety guidelines:



- Do NOT smoke or allow anyone to smoke in the room where oxygen is being used. Your oxygen home care company will provide “No Smoking” signs to hang in your home.
- Avoid open flames. Do NOT use oxygen within 10 feet of open flames, such as fireplaces, wood-burning stoves and gas stoves.
- Use caution when using electrical equipment. Do NOT use equipment with frayed cords or electrical shorts. They could cause a spark.
- Use battery powered razors and hair dryers when using oxygen.
 - Hair dryers should be used on a cool setting only.
 - If you must use an electric razor or hair dryer, be sure to use it at least 5 to 10 feet away from the oxygen.
 - Do NOT use an appliance with a control box, such as a heating pad. Control boxes may throw sparks.
- Avoid static electricity.
 - Avoid nylon or woolen clothing that is more likely to cause static electricity.
 - Use a humidifier in winter to add moisture to dry air in your home.
- Never apply any oily substance, such as petroleum based lip products, Vaseline, Blistex or Chapstick, to your nose, lips or the lower part of your face.
- Ensure your home has working smoke alarms and you may wish to notify your local fire department that you have oxygen in your home.



Fire Safety Facts and figures from National Fire Protection Association

During the four-year period of 2003-2006:

- Hospital emergency rooms saw an estimated average of 1,190 thermal burns per year caused by ignitions associated with home medical oxygen.
- Eighty-nine percent of the victims suffered facial burns.
- In most cases, the fire department was not involved.
- This is why it is important to not smoke while using oxygen and follow all oxygen fire safety guidelines.

3. Oxygen Storage and Handling

Oxygen tanks should be stored in a stand or cart to prevent tipping and falling. Store extra, unsecured tanks by placing them flat on the floor. Do not allow tanks to stand or lean in an upright position while unsecured.

- **DO NOT** store oxygen systems in unventilated areas such as closets or cabinets.
- **NEVER** drape clothing over oxygen systems.
- **DO NOT** store oxygen systems near heat, fireplaces, direct sunlight or ignition sources.
- **DO NOT** store oxygen systems in the trunk of your car. While transporting oxygen in a vehicle, ensure containers are secure and positioned properly. Oxygen should be transported in the passenger compartment of a vehicle with the window open slightly (2-3 inches) to permit adequate ventilation.

4. Concentrator Safety

Concentrators are electrical devices that should only be plugged into a properly grounded or polarized outlet.

DO NOT use extension cords.

DO NOT use multi-outlet adaptors such as power strips.

Avoid using power sources that create heat or sparks.

Use a power supply or electrical circuit that meets or exceeds the amperage requirements of the concentrator.

5. Liquid Oxygen Safety

Avoid direct contact with liquid oxygen as it can cause severe burns due to its extremely cold temperature.

Avoid touching any frosted or icy connectors of either the stationary reservoir or portable unit.

Avoid contact with any stream of liquid oxygen while filling portable units.

Keep the portable unit in an upright position. Do not lay the unit down or place on its side.

Oxygen Safety while Traveling

6. Tips for Traveling with Oxygen

- Before you make any plans to travel, check with your doctor to determine that you are capable of travel and what extra precautions may be necessary.
- Have a copy(s) of your oxygen prescription, including oxygen litre flow and hours of use, with you at all times as well as a current list of medications you are receiving. Make several copies of the prescription and medication list as you may need to present a copy to flight attendants or oxygen suppliers during your travel.
- You may also require a physician statement indicating your ability to travel, travel itinerary (general) and oxygen flow rates.
- If arranging your travel through a travel agent, make sure to inform them you will be travelling with oxygen before you book your trip.
- Contact your oxygen supplier and notify them of your travel plans and they may be able to assist you with your oxygen needs during your trip.
- Avoid travel travelling to, or through, locations at high elevations as these may make your breathing more difficult.
- There will be costs when travelling with oxygen. Your government oxygen program or private pay health insurance or other payers does not cover this.

7. Automobile Travel with Oxygen

- Map your route and consider the following:
 - Length of trip
 - Number of overnight stops
 - Distance between each scheduled stop
 - Oxygen prescription and hours of use (helps determine number of cylinders required if not using a portable oxygen concentrator)
- Your oxygen supplier may be able to assist you with contacts for oxygen refills along your route. Schedule your trip to take advantage of oxygen exchange or refill points. This decreases the number of cylinders you may need to carry in your vehicle.
- Always carry enough back up oxygen to deal with unexpected travel delays (road work, bad road conditions etc).
- When traveling through high elevations or mountain passes you may require more oxygen then you do when at home. Try and avoid travelling to high elevations whenever possible.

- Secure your oxygen equipment in the car and for safety do not store oxygen cylinders in your trunk.
- Portable oxygen concentrators can be used with most vehicle car lighter adapters or internal batteries decreasing the number of compressed oxygen cylinders required or eliminating the need for liquid oxygen reservoirs.

8. Cruise Line Travel with Oxygen

- Ask your travel agent if there are any special requirements when travelling with oxygen. Most cruise lines specify each passenger must make his or her own oxygen arrangements. Your oxygen supplier should be able to help you with coordinating oxygen for your trip or direct you to an organization that specializes in travel oxygen. Passengers must provide a letter from their doctor prior to travel indicating they are fit to travel, travel plans and oxygen prescription (hours of use and oxygen flowrate).
- Ships do not refill oxygen tanks.
- Oxygen arrangements should be made 30-45 days prior to travel.
- Costs for oxygen on cruise lines will not be covered by government programs, private insurance carriers or other payers.
- Using your Portable Oxygen Concentrator on a cruise ship is as convenient as using it at home. In your cabin, simply plug your POC into an AC electrical outlet just as you would at home.
 - Use battery power for ship activities outside your cabin. Be sure to keep enough batteries charged to provide power for the duration of your shipboard activities.
- Most cruise ships offer AC electrical outlets throughout the ship. To conserve battery power, you may wish to locate an AC electrical outlet in the dining and recreational areas of the ship. If you transport your POC in the convenient carry bag, you can use the pockets on the bag to carry your AC Power Supply or extra battery.
- Get to the seaport early. Seaport security personnel may require extra time to inspect your Oxygen equipment during the security screening process.

9. Bus Travel with Oxygen

- Greyhound will allow portable oxygen and portable oxygen concentrators to be used on their buses. Verify with Greyhound in advance that your specific system is acceptable. NOTE: Full Oxygen cylinders cannot be checked as baggage. However, empty oxygen cylinders may be allowed.
- A maximum of four cylinders can accompany you on board.
- Maximum dimensions may not exceed 4.5 inches in diameter and 26 inches in length

Contact Greyhound: 1-800-661-TRIP (8747) / www.greyhound.ca

10. Train Travel with Oxygen

In the United States, Amtrak requires that you follow these guidelines:

- You must notify Amtrak of your need to bring oxygen aboard and make reservations in advance. Please call 1-800-USA-RAIL (1-800-872-7245). Amtrak requires at least 12 hours notice in advance of your train's boarding time of your need to bring oxygen aboard.
- You must have medical necessity to bring oxygen aboard.
- Your oxygen equipment cannot rely solely on train-provided electrical power.
- In addition to the requirements of Amtrak, here are some helpful suggestions:
- When making your reservation, request a seat with a power port. Confirm your seat has a power port upon boarding the train.
- Carry the additional adapters that came with your Universal Power Supply in case there are different power port configurations.
- Carry enough batteries for the duration of your trip in case your train does not have power ports available.

11. Airline Travel with Oxygen

Traveling with your airline approved portable oxygen concentrator (POC) is easy. Most meet FAA guidelines for use onboard all commercial aircrafts for flights starting or stopping within the United States. Many international airlines will also allow FAA-compliant portable oxygen concentrators onboard. Check with your airline to determine, which system they allow.

It is important to plan ahead and to check with your airline well in advance of your travel date to learn specific requirements. Without proper planning, airlines may not be equipped to provide backup oxygen, so coordinating a backup source for use at your final destination is crucial. In case of changes to an airline's oxygen policy, we strongly recommend that you contact your airline directly prior to purchasing your ticket to confirm the requirements for the on-board use of your portable oxygen concentrator. Read on for a step-by-step guide on how to fly with portable oxygen concentrators that meet FAA guidelines.

Before Purchasing Tickets

- Inform airline that you will be travelling with your portable oxygen concentrator.
- Determine the requirements for batteries for your desired travel dates and locations.
- Confirm that your plane will have available electrical power onboard.
- Request seating with an available power port.
- Ensure that you have sufficient battery power for the duration of your flight, including a conservative estimate of unanticipated delays.
- Fly non-stop if possible. This eliminates the hassle of arranging for oxygen deliveries to the airport which results in extra charges

Planning Your Flight

Before you travel with a portable oxygen concentrator meeting FAA guidelines, you must obtain a signed statement from your physician that includes details about:

- Your ability to see/hear alarms and respond appropriately
- When oxygen use is necessary (all or a portion of the trip)
- Maximum flow rate corresponding to the pressure in the cabin under normal operating conditions

Some airlines may require that the statement obtained from your physician be printed on his/her official letterhead. This statement needs to be kept with you at all times during your flight. A new statement will not be necessary each time you fly, but the statement should be available during every flight while you travel.

Before Your Flight

Here are some things to keep in mind the day your flight departs:

- Ensure your POC is clean, in good condition and free from damage or other signs of excessive wear or abuse.
- Bring enough fully charged batteries with you to power your POC for the duration of the flight plus a conservative estimate of unanticipated delays. Contact your equipment provider to obtain additional POC batteries.
- CAUTION: Airlines may not be equipped to provide backup oxygen.
- Regional/Commuter airlines do not offer on-board electrical power. If your travel plans call for flights on regional airlines, you will need sufficient battery power for the duration of the flight, plus a conservative estimate of unanticipated delays.
- Arrive at the airport early. Airport security screening personnel may require extra time to inspect your Oxygen equipment.
- While waiting to board your flight, you may be able to conserve battery power by powering your POC from an electrical outlet in the airport terminal.

During Your Flight

When you find your seat, locate the power port, if available. If your seat does not have a power port or if you have difficulty plugging in your power supply or AC power supply, ask a flight attendant for assistance.

- You must remove the battery from the concentrator when operating the POC using an aircraft power port.
- During taxi, takeoff and landing, stow your POC under the seat in front of you. Your POC will fit upright under most airline seats. However, if it doesn't fit, you may turn it on its side.

- It is not necessary to turn off your POC during taxi, takeoff and landing if your physician's written statement requires you receive oxygen during these periods.
- When you are traveling with the POC and are not planning to use it during the flight, remove the battery from the concentrator.
- You must inform the airline you will be using your POC. Have your physician letter with you and ready for inspection if requested.

After Your Flight

- Remember to recharge additional batteries you may have used prior to your next flight.
- Arrange for the delivery or pick up of your backup oxygen supply.
- Have fun. Enjoy your independence.

References

COPD Foundation. Oxygen therapy.
www.copdfoundation.org/What-is-COPD/Living-with-COPD/Oxygen-Therapy.aspx.

American Thoracic Society. Oxygen therapy.
www.thoracic.org/patients/patient-resources/resources/oxygen-therapy.pdf.

National Fire Protection Association. Medical oxygen.
www.nfpa.org/safety-information/for-consumers/causes/medical-oxygen..

For additional questions please Contact US at one of our locations that provide oxygen:

Medical Necessities - Columbia

907 W James Campbell Blvd.
Columbia, TN 38401
(931) 840-8694

Medical Necessities - Nashville

1811 Charlotte Ave.
Nashville, TN 37203
(615)515-3669

Medical Necessities - Knoxville

7405 Shallowford Road, Suite 190
Chattanooga, TN 37421
(423) 648-9856

DANGER

**NO SMOKING
OXYGEN IN USE**

