

# **OXYGEN PACKET**

# Proper Storage of Portable Oxygen Tanks In The Home

Portable oxygen tanks are to be stored in a well-ventilated area at all times. They can be stored on the floor lying on their sides or upright in a tank cart/holder, if provided. Portable oxygen tanks are not to be stored in closets or under beds.

If stored in the garage, they must be kept on their sides or in a tank cart/holder away from a furnace or other gas or electrical appliances and away from combustible fluids/materials.

Please refer to the following pictures that show the proper way to store portable oxygen cylinders.

#### PROPERLY STORED





#### IMPROPERLY STORED









If there is a question about the safety of tank storage in a patient's home, please contact HME at 503-215-4663 and ask to speak to Distribution Department representative.

linder Valve



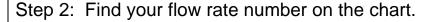
During a power outage or equipment failure, switch to using the back-up tank.

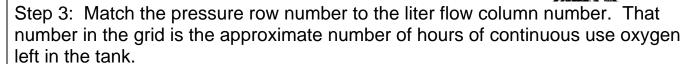
- Turn on the back-up oxygen. Check the flow rate.
- Place the Nasal Cannula attached to the back-up tank in your nose.
- Call Home Services.
- Report that you are using your back-up oxygen.
- Report whether or not the pressure in your tank is in the refill zone.

You can check to see approximately how long your oxygen tank will last by following these steps:

\*\*Pressure Gauge\*\*

Step 1: Read the pressure gauge on your tank. Find that number on the chart.





Example: Mr. Jones has a flow rate of 2 liters per minute. The PSI reading on his S tank is 1500. He has *about* 50 hours of continuous oxygen use left in his tank.

|                              |      | Liters per Minute / Flow Rate |        |        |        |        |        |        |        |  |  |
|------------------------------|------|-------------------------------|--------|--------|--------|--------|--------|--------|--------|--|--|
|                              |      | 1                             | 1 ½    | 2      | 2 ½    | 3      | 4      | 5      | 6      |  |  |
| ×                            | 2000 | 133 hrs                       | 89 hrs | 67 hrs | 53 hrs | 44 hrs | 33 hrs | 27 hrs | 22 hrs |  |  |
| ZZ                           | 1800 | 120 hrs                       | 80 hrs | 60 hrs | 48 hrs | 40 hrs | 30 hrs | 24 hrs | 20 hrs |  |  |
| 95<br>N                      | 1500 | 98 hrs                        | 67 hrs | 50 hrs | 40 hrs | 33 hrs | 25 hrs | 20 hrs | 17 hrs |  |  |
| SI = OXYGEN<br>SSURE IN TANK | 1200 | 80 hrs                        | 53 hrs | 40 hrs | 32 hrs | 27 hrs | 20 hrs | 16 hrs | 13 hrs |  |  |
| ) =<br>JU                    | 1000 | 67 hrs                        | 44 hrs | 33 hrs | 27 hrs | 22 hrs | 17 hrs | 13 hrs | 11 hrs |  |  |
| PSI<br>RESS                  | 900  | 60 hrs                        | 40 hrs | 30 hrs | 24 hrs | 20 hrs | 15 hrs | 12 hrs | 10 hrs |  |  |
| PRE                          | 700  | 47 hrs                        | 31 hrs | 23 hrs | 19 hrs | 16 hrs | 12 hrs | 9 hrs  | 8 hrs  |  |  |
| Д                            | 500  | 33 hrs                        | 22 hrs | 17 hrs | 13 hrs | 11 hrs | 8 hrs  | 7 hrs  | 6 hrs  |  |  |

If your back-up runs out during a disaster, go to the nearest Providence Hospital or other emergency health care center. During a power outage or equipment failure, switch to using the back-up tank.

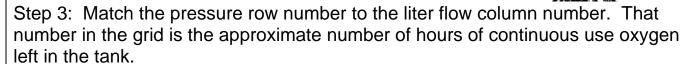
- Turn on the back-up oxygen. Check the flow rate.
- Place the Nasal Cannula attached to the back-up tank in your nose.
- Call Home Services.
- Report that you are using your back-up oxygen.
- Report whether or not the pressure in your tank is in the refill zone.

You can check to see approximately how long your oxygen tank will last by following these steps:

\*\*Pressure Gauge\*\*

Step 1: Read the pressure gauge on your tank. Find that number on the chart.

Step 2: Find your flow rate number on the chart.



Example: Mr. Jones has a flow rate of 2 liters per minute. The PSI reading on his MM tank is 1500. He has *about* 20.25 hours of continuous oxygen use left in his tank.

|                                  |      | Liters per Minute / Flow Rate |         |          |         |         |         |         |         |  |
|----------------------------------|------|-------------------------------|---------|----------|---------|---------|---------|---------|---------|--|
|                                  |      | 1                             | 1 ½     | 2        | 2 ½     | 3       | 4       | 5       | 6       |  |
| PSI = OXYGEN<br>PRESSURE IN TANK | 2000 | 54hrs                         | 36hrs   | 27hrs    | 21.5hrs | 18hrs   | 13.5hrs | 10.5hrs | 9hrs    |  |
|                                  | 1800 | 48hrs                         | 32hrs   | 24hrs    | 19hrs   | 16hrs   | 12hrs   | 9.5hrs  | 8hrs    |  |
|                                  | 1500 | 40.5hrs                       | 27hrs   | 20.25hrs | 16hrs   | 13.5hrs | 10hrs   | 8hrs    | 6.75hrs |  |
|                                  | 1200 | 35hrs                         | 23hrs   | 16hrs    | 14hrs   | 11.5hrs | 8hrs    | 7hrs    | 5.5hrs  |  |
|                                  | 1000 | 27hrs                         | 18hrs   | 13.5hrs  | 10.5hrs | 9hrs    | 6.75hrs | 5.4hrs  | 4.5hrs  |  |
|                                  | 900  | 24hrs                         | 16hrs   | 12hrs    | 9.5hrs  | 8hrs    | 6hrs    | 4.5hrs  | 4hrs    |  |
|                                  | 700  | 19hrs                         | 12.5hrs | 9.5hrs   | 7.5hrs  | 6hrs    | 4.5hrs  | 3.5hrs  | 3hrs    |  |
| П.                               | 500  | 13.5hrs                       | 9hrs    | 6.75hrs  | 5.25hrs | 4.5hrs  | 3.25hrs | 2.5hrs  | 2.25hrs |  |

vlinder Valve

# Portable Oxygen System (D Tank) Pediatric Customer / Patient Information

Pressure Gauge

When traveling outside of the home, follow the basic guidelines:

- Do NOT store the extra tank in the trunk of your car.
- Do NOT allow anyone to smoke in the car.
- Keep the window open a crack.
- Check the amount of oxygen in the tank before you leave your home.
- Estimate the length of time you plan to be gone. Add extra time for unexpected delays.
- Take an extra tank, as needed. Secure it in the back seat with the safety belt.

Make sure you have enough oxygen for the *full* trip! Here's how:

- Step 1: Read the pressure gauge on your tank. Find that number on the chart.
- Step 2: Find your flow rate number on the chart.
- Step 3: Match the pressure row number to the liter flow column number. That number in the grid is the approximate number of hours of continuous use oxygen left in the tank.

|  |                 | Liters per Minute / Flow Rate |                  |                  |                  |                   |                   |                   |                   |  |
|--|-----------------|-------------------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|--|
|  |                 | 1                             | 1/2              | 1/4              | 1/8              | 1/16              | 1/32              | 1/40              | 1/64              |  |
|  | 2000            | 6 hrs                         | 12 hrs           | 24 hrs           | 48 hrs           | 96 hrs            | 192 hrs           | 240 hrs           | 375 hrs           |  |
| PSI = OXYGEN<br>1500<br>1200<br>1000<br>900<br>900 | 5 hrs<br>20 min | 10 hrs<br>45 min              | 21 hrs<br>35 min | 43 hrs<br>15 min | 85 hrs<br>40 min | 174 hrs<br>15 min | 216 hrs           | 337 hrs<br>30 min |                   |  |
|  | 1500            | 4 hrs<br>30 min               | 9 hrs            | 18 hrs           | 36 hrs           | 71 hrs<br>25 min  | 145 hrs<br>10 min | 180 hrs           | 281 hrs<br>15 min |  |
|  | 1200            | 3 hrs<br>40 min               | 7 hrs<br>15 min  | 14 hrs<br>25 min | 28 hrs<br>45 min | 57 hrs<br>10 min  | 116 hrs<br>10 min | 144 hrs           | 225 hrs           |  |
|  | 1000            | 3 hrs                         | 6 hrs            | 12 hrs           | 24 hrs           | 47 hrs<br>35 min  | 96 hrs<br>40 min  | 120 hrs           | 187 hrs<br>30 min |  |
| PSI<br>RES   | 900             | 2 hrs<br>40 min               | 5 hrs<br>25 min  | 10 hrs<br>45 min | 21 hrs<br>35 min | 42 hrs<br>45 min  | 87 hrs<br>5 min   | 108 hrs           | 168 hrs<br>40 min |  |
| PA -   | 700             | 2 hrs<br>10 min               | 4 hrs<br>15 min  | 8 hrs<br>25 min  | 16 hrs<br>45 min | 33 hrs<br>20 min  | 67 hrs<br>40 min  | 84 hrs            | 131 hrs<br>15 min |  |
|  | 500             | 1 hr<br>30 min                | 3 hrs            | 6 hrs            | 12 hrs           | 23 hrs<br>45 min  | 48 hrs<br>20 min  | 60 hrs            | 93 hrs<br>15 min  |  |

If your back-up runs out during a disaster, go to the nearest Providence Hospital or other emergency health care center.

DISTRIBUTION: In-Home Packet

Pressure Gauge

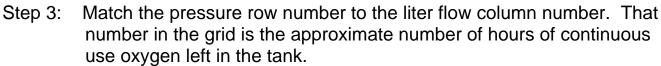


When traveling outside of the home, follow the basic guidelines:

- Do NOT store the extra tank in the trunk of your car.
- Do NOT allow anyone to smoke in the car.
- Keep the window open a crack.
- Check the amount of oxygen in the tank before you leave your home.
- Estimate the length of time you plan to be gone. Add extra time for unexpected delays.
- Take an extra tank, as needed. Secure it in the back seat with the safety belt.

Make sure you have enough oxygen for the full trip! Here's how:

- Step 1: Read the pressure gauge on your tank. Find that number on the chart.
- Step 2: Find your flow rate number on the chart.



Example: A full trip to the doctor takes Mr. Jones 2 ½ hrs. He drives 30 minutes each way. The waiting room plus appointment time takes 30 minutes. He allows 1 hour for delays.

He uses 2 liters per minute. The pressure reading on his E tank is 1500 PSI. By reading the chart, he knows he has about 3 hours and 30 minutes of continuous oxygen use. Mr. Jones has enough oxygen at his flow rate for the full trip.

|                      |      | Liters per Minute / Flow Rate |                 |                 |                 |                 |                 |                |                |  |  |
|----------------------|------|-------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|----------------|----------------|--|--|
|                      |      | 1                             | 1 ½             | 2               | 2 ½             | 3               | 4               | 5              | 6              |  |  |
| OXYGEN<br>RE IN TANK | 2000 | 9 hrs<br>18 min               | 6 hrs<br>5 min  | 4 hrs<br>40 min | 3 hrs<br>45 min | 3 hrs           | 2 hrs<br>10 min | 1 hr<br>50 min | 1 hr<br>30 min |  |  |
|                      | 1800 | 8 hrs<br>20min                | 5 hrs<br>35 min | 4 hrs<br>5 min  | 3 hrs<br>15 min | 2 hrs<br>50 min | 2 hrs           | 1 hr<br>40 min | 1 hr<br>20 min |  |  |
|                      | 1500 | 7 hrs                         | 4 hrs<br>45 min | 3 hrs<br>30 min | 2 hrs<br>50 min | 2 hrs<br>10 min | 1 hr<br>45 min  | 1 hr<br>20 min | 1 hr<br>5 min  |  |  |
|                      | 1200 | 5 hrs<br>36 min               | 3 hrs<br>45 min | 2 hrs<br>50 min | 2 hrs<br>5 min  | 1 hr<br>50 min  | 1 hr<br>20 min  | 1 hr           | 55 min         |  |  |
|                      | 1000 | 4 hrs<br>35 min               | 3 hrs<br>5 min  | 2 hrs<br>10 min | 1 hr<br>50 min  | 1 hr<br>30 min  | 1 hr<br>10 min  | 55 min         | 45 min         |  |  |
|                      | 900  | 4 hrs                         | 2 hrs<br>50 min | 2 hrs           | 1 hr<br>40min   | 1 hr<br>20 min  | 1 hr            | 45 min         | 40 min         |  |  |
|                      | 700  | 3 hrs<br>5 min                | 2 hrs<br>5 min  | 1 hr<br>40 min  | 1 hr<br>10 min  | 1 hr            | 50 min          | 40 min         | 30 min         |  |  |
|                      | 500  | 2 hrs<br>15 min               | 1 hr<br>30 min  | 1 hr<br>5 min   | 55 min          | 45 min          | 30 min          | 25 min         | 15 min         |  |  |

If your back-up runs out during a disaster, go to the nearest Providence Hospital or other emergency health care center.

DISTRIBUTION: In-Home Packet

# Portable Oxygen System (E Tank) Pediatric Customer / Patient Information

When traveling outside of the home, follow the basic guidelines:

- Do NOT store the extra tank in the trunk of your car.
- Do NOT allow anyone to smoke in the car.
- Keep the window open a crack.
- Check the amount of oxygen in the tank before you leave your home.
- Estimate the length of time you plan to be gone. Add extra time for unexpected delays.
- Take an extra tank, as needed. Secure it in the back of the vehicle.

Make sure you have enough oxygen for the *full* trip! Here's how:

Step 1: Read the pressure gauge on your tank. Find that number on the chart.

Step 2: Find your flow rate number on the chart.



Step 3: Match the pressure row number to the liter flow column number. That number in the grid is the approximate number of hours of continuous oxygen left in the tank.

|  |      | Liters per Minute / Flow Rate |                  |                  |                  |                   |                   |                   |                   |  |  |
|--|------|-------------------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|--|--|
|  |      | 1                             | 1/2              | 1/4              | 1/8              | 1/16              | 1/32              | 1/40              | 1/64              |  |  |
| 1800<br>1500<br>1200<br>1200<br>1000<br>7000 | 2000 | 9 hrs<br>20 min               | 18 hrs<br>30 min | 37 hrs<br>20 min | 74 hrs<br>35 min | 148 hrs<br>10 min | 301 hrs           | 373 hrs<br>20 min | 583 hrs<br>20 min |  |  |
|  | 1800 | 8 hrs<br>25 min               | 16 hrs<br>45 min | 33 hrs<br>35 min | 67 hrs<br>15 min | 133 hrs<br>20 min | 270 hrs<br>50 min | 336 hrs           | 525 hrs           |  |  |
|  | 1500 | 7 hrs                         | 14 hrs           | 28 hrs           | 56 hrs           | 111 hrs<br>10 min | 225 hrs<br>45 min | 280 hrs           | 437 hrs<br>30 min |  |  |
|  | 1200 | 5 hrs<br>35 min               | 11 hrs<br>15 min | 22 hrs<br>25 min | 44 hrs<br>45 min | 88 hrs<br>45 min  | 180 hrs<br>35 min | 224 hrs           | 350 hrs           |  |  |
|  | 1000 | 4 hrs<br>35 min               | 9 hrs<br>20 min  | 18 hrs<br>35 min | 37 hrs<br>20 min | 74 hrs            | 150 hrs<br>30 min | 186 hrs<br>35 min | 291 hrs<br>35 min |  |  |
|  | 900  | 4 hrs<br>15 min               | 8 hrs<br>25 min  | 16 hrs<br>45 min | 33 hrs<br>35 min | 66 hrs<br>35 min  | 135 hrs<br>25 min | 168 hrs           | 262 hrs<br>30 min |  |  |
|  | 700  | 3 hrs<br>15 min               | 6 hrs<br>30 min  | 13 hrs           | 26 hrs<br>10 min | 51 hrs<br>45 min  | 105 hrs<br>20 min | 130 hrs<br>35 min | 204 hrs<br>10 min |  |  |
| PSI  | 500  | 2 hrs<br>20 min               | 4 hrs<br>35 min  | 9 hrs<br>20 min  | 18 hrs<br>35 min | 37 hrs            | 75 hrs<br>15 min  | 93 hrs<br>20 min  | 145 hrs<br>45 min |  |  |

If your back-up runs out during a disaster, go to the nearest Providence Hospital or other emergency health care center.



The cost of the electricity to run your oxygen concentrator may be a medical deduction on your income tax. Consult with your accountant to see if this deduction is right for you. Here's the formula:

# Power Needed x Amount Used Per Year x Cost Per Hour = Cost Per Year

### Step 1: Determine how much power in kilowatts (kW) is needed by your concentrator.

Find the number of watts your concentrator needs to run. Look on the concentrator or check the product specification page of the operator's manual.

Examples: 350watts; 460watts

Multiply watts x 0.001 kilowatt in a watt

Examples: 350 watts x 0.001 KW / watt = 0.35 kW 460 watts x 0.001 KW / watt = 0.46 kW

| = | k | ۷ | ٧ |  |
|---|---|---|---|--|
|   |   |   |   |  |

#### Step 2: Determine how many hours the concentrator is used in a year.

Multiply number of hours used in a day X 365 days in a year. Examples: 24 hours (continuous use) X 365 = 8760 hrs./ yr. 8 hours (bedtime use only) X 365 = 2920 hrs./ yr.

| <b>=</b> | _hrs. | /yr | • |
|----------|-------|-----|---|
|----------|-------|-----|---|

## Step 3: Find the cost of electricity in kilowatt hours (KWH) from your electric bill

Examples: \$0.0552 per kWh; \$0.062 per kWh

= \$ / kWh

### Step 4: Multiply the results of Steps 1, 2, & 3.

#### Example #1:

Mr. River's concentrator has a rating of 350 watts. He uses oxygen 24 hours per day. His electric company charges \$0.06 Kilowatts per hour (KWH).

(350 watts x 0.001 watt / KW) x (24 hrs./day x 365 days/ yr.) x \$0.06 = \$186.96 year

#### Example #2:

Mrs. Ocean's concentrator has a rating of 460 watts. She uses oxygen 8 hours per day. Her electric company charges \$0.08 kilowatts per hour.

(460watts x 0.001 watt / kW) x (8 hrs./day x 365 days / yr.) x \$0.08 = \$107.46 year



A regulator controls the flow of oxygen from a tank or cylinder. When using portable oxygen tanks, here's how to remove the oxygen regulator from the empty tank and fit it on the full tank.

- 1. Wash and dry your hands.
- 2. Shut off oxygen tank by turning the valve on top of the tank clockwise until tight.
- 3. Keep the liter flow dial open to allow the remaining oxygen to escape from inside the regulator.
- 4. Unscrew the regulator from the empty tank by turning the regulator valve counterclockwise.



- 5. Attach the regulator to a full tank.
  - Remove the protective cap from the full tank.
     The cap covers the threads and outlet of the valve.
  - Use a brief burst of oxygen from the tank to clean the tank valve outlet of any dust or moisture.
    - Point the valve outlet away from you or others.
    - Quickly open and close the tank valve.
       Listen for a short burst of oxygen.
  - Attach the regular to the tank.
    - Fit the regulator on the threads of the tank valve (figure a).
    - Attach by turning the regulator valve clockwise.
    - Tighten by hand (figure b).



figure a



figure b

- 5. Test for a good seal between the regulator and the tank.
  - Turn the liter flow knob to off.
  - Slowly open the tank valve. Turn the tank valve counterclockwise a full ¼ turn.
  - Listen for any leaks. If your hear any leaks, close the valve. Remove the regulator. Rematch the threads. Reattach.
  - If you still hear any leaks, call Home Services for assistance.
- 6. Once there is a good seal, open the tank valve.
  - Turn the tank valve counterclockwise a full turn.
  - The pressure gauge in a full portable oxygen tank should read about 2000 PSI.
     Tank pressures can vary slightly due to room temperature.
- 7. Adjust the liter flow control knob to the setting prescribed by your doctor.
- 8. Secure the empty tank as if it were full.
- 9. Please call Providence Home Services for any equipment concerns.



Room air contains about 21% oxygen. Your concentrator separates oxygen gas out of the air, concentrates and stores it. Here are the basic steps to set-up the equipment:

- 1. Receive the Equipment
  - Concentrator with Operator's Manual & Filters
  - Safety Signs
    - 2 "No Smoking Oxygen in Use" stickers for outside entrances
    - 1 "No Smoking Oxygen in Use" sign for the room with oxygen in use.
  - Initial Supply of Accessories
    - 2 Adapters or "Christmas Trees"
    - 3 50 ft. Tubing
    - 5 Nasal Cannula with 7 ft. Tubing
    - 2 Swivel Connectors
    - 1 Standard Connector

#### 2. Place the Unit in a Safe Place

- Electrical Safety
  - Plug the concentrator into a grounded outlet.
    - If your house is not electrically grounded, we recommend that you consult an electrician to lower the risk of fire or shock.
    - If the chosen outlet does not have 3 prongs, we will supply an adapter. If you change outlets, remember to connect the ground screw.
  - Do not plug the concentrator into an electrical circuit that feeds other major appliances. If the circuit breakers or fuses are triggered, consult an electrician.
  - Do not use extension cords with this unit.
- (Fire Safety) Unit Placement
  - Choose an *open* area. Allow the machine to vent or "breathe".
    - Do NOT place in a closet or other confined area.
    - Do NOT block the unit's vents with extra padding or thick carpeting.
  - Keep the unit at least:
    - 12 inches away from walls, curtains or drapes.
    - 5 feet away from heat sources, such as space heaters, steam pipes, large windows (direct sunlight).
    - 10 feet away from open flames, such as fireplaces, woodstoves, gas stoves, matches, candles, cigarettes.
  - Keep all flammable materials off the unit, such as oil-based products or grease.
  - Do NOT use aerosol room fresheners or hairspray in the area.
  - Confirm that the smoke detector on this level of your home is working.
  - Post the "No Smoking Oxygen in Use" sign and stickers.

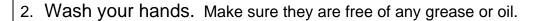
#### 3. Attach the Accessories

- Push the end of the oxygen tubing onto the oxygen outlet. Do not use force. You will
  routinely need to pull the tubing off and replace it with new tubing.
- Use the swivel connector to attach the tubing to the nasal cannula.



Here's a quick guide to operating an oxygen concentrator. Refer to your owner's manual or call Home Services for information and problem solving.

- 1. Locate the key parts. Each model is a bit different, but has these features:
  - On/Off (I/0) Power Switch
  - Circuit Breaker
  - Flowmeter / Adjustment Knob
  - Oxygen Outlet
  - Alarm System
  - Label with Basic Instructions
  - Filter (on both sides or on the back of unit)



- 3. Turn on the concentrator.
  - Press the On/Off Switch.
  - A safety alarm will sound for a few seconds. This same alarm will sound if the electrical power fails. If this alarm is not functioning, call Home Services.
- 4. Adjust the oxygen flow rate (liters per minute) to the <u>prescribed</u> amount.
  - If the model has a dial: Turn the knob until the correct number appears.
  - If the model has a flowmeter:

Turn the knob until the center of the indicator ball is at the correct number.



- 5. Clean the filters at least once a week.
  - Turn the machine "Off". Remove the filter(s) and insert the spare(s). Turn it back "On".
  - Wash the removed filter(s) in warm soapy water. Rinse. Place on a towel to dry.
  - Call Home Services for a new spare if any of the filters appear torn or damaged.
- 6. Expect periodic, scheduled in-home service calls.
  - Our maintenance staff will telephone to schedule a service call.
  - When they call, alert them if you need to replace any of your spare set of accessories.
  - In between service calls, please call Providence if you have any equipment concerns.



# Oxygen System & Humidity Customer / Patient Handout

Your lungs naturally require moisture to keep working well and prevent infection. Your nose provides much of the needed moisture. Dry room air can be a problem, especially in winter. Higher liter flows of oxygen can be drying, too. Here's some tips for your comfort:

- 1. Keep your nose from drying out.
  - Use an aloe or water based product on the inside of your nostrils.
  - Do NOT use petroleum-based products.
- 2. Drink plenty of liquids as much as your doctor recommends.
- 3. Keep the air in your house moist rather than dry.
  - Use a room humidifier as needed. Clean the unit once a day.
  - Replace room air filters in the fall and as needed. Dust free air will be more comfortable.
- 4. Use an oxygen humidifier if ordered by your doctor. The system *must* be kept clean to reduce the risk of infection. Follow these guidelines:
  - Wash and dry your hands.
  - Turn off your humidified oxygen. Switch to your back-up or portable oxygen.
  - Unscrew the bottle portion of the humidifier. Discard any remaining water.
  - Rinse out the bottle.
    - Clean the bottle at least twice a week.
      - Wash in warm water. Use liquid detergent.
      - Rinse. Allow to air dry because towel drying can leave lint.
    - Disinfect the bottle at least once a week.
      - Soak for 30 minutes in a solution that is 1-part white vinegar and 2-parts water.
      - Rinse. Allow to air dry.
  - Refill the bottle with cool, **distilled** water to the fill line. Do NOT overfill.
  - Screw the top and the bottle back together. Check that it is screwed on straight.
  - Turn on the oxygen. Make sure the water bubbles.
  - Turn on the humidified oxygen. Start to use. Turn off your back-up or portable oxygen.
- 5. Plan ahead.
  - When our maintenance staff telephones to schedule a service call, alert them if you need a new spare humidifier bottle.
  - In between service calls, please call Providence if you have any equipment concerns.



Here's a quick guide to using the nasal cannula and oxygen tubing.

#### 1. Nasal Cannula

- Placement
  - Hold the cannula in both hands. The prongs should be curved toward you.
  - Place the tips of the cannula into your nostrils.
  - Slide the tubing around your ears. Adjust the tubing to fit comfortably under your chin.

#### Comfort

- On some people, the tubing may rub against tender skin. Foam "ear protectors" are available. Slide them over the plastic tubing.
- Keep your nose from drying out.
- Use an aloe or water based products on the inside of your nostrils.
- Do NOT use petroleum-based products.
- Keep the air in your house moist rather than dry.

#### Maintenance

- Keep the tips of the cannula clear of mucus. Wipe the cannula tips off with a warm washcloth. Blow your nose often.
- Replace the cannula every two weeks. Also, switch to your spare set if your cannula becomes hard or blocked by mucus. Call Home Services for a replacement.

# 2. Oxygen Tubing

- To prevent tripping, hold onto the tubing when you walk.
- On colder nights, a small amount of moisture may form in the tubing. Keeping the tubing off the floor usually can prevent this.
- Replace the tubing you are using every three months. Switch to your spare set if you notice any damage in the tubing. Call Home Services for a replacement

#### 3. Plan ahead

- Keep a spare nasal cannula and tubing set on hand.
- Know how to attach the tubing and turn on your back-up oxygen source. During
  a power outage or other emergency, you may need to quickly switch to your back-up
  oxygen.
- When our maintenance staff telephone to schedule a service call, please alert them if you need to replace any of the oxygen accessories.
- In between service calls, please call Providence if your have any equipment concerns.

# Compressed Gas Oxygen Tanks Customer / Patient Handout

Oxygen tanks that contain compressed gas come in many sizes.

- Large oxygen tanks
  - Are secured in a special stand in the home.
  - Provide a back-up system for oxygen concentrators during a power failure.
  - Are used as the primary system for children and others who need very low flow rates.



- Small oxygen tanks
  - · Weigh less than 20 lbs.
  - Are intended for use outside of the home.
  - Are either carried in a case or pushed in a cart.
  - Empty cylinders must be brought back to Providence to be refilled.



# Please read the basic oxygen safety handout. Here are some additional guidelines for compressed gas oxygen tanks:

- 1. Store the tank safely.
  - Keep at least 5 feet away from heat sources and 10 feet away from open flames.
  - Keep away from all flammable materials such as oil based products, grease, aerosols.
  - Secure tanks in an open, vented area.
    - Do NOT store in a closet at home. Do NOT cover with blankets, plastic, etc.
    - Do NOT store small tanks in a car trunk or leave in a closed car in warm weather.
    - Keep the large, back-up tank upright in its special base.
    - Small tanks may be laid flat. Do NOT store under a bed, sofa, etc.
- 2. Wash your hands before handling the tanks or supplies.

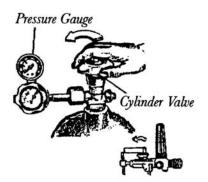
# Compressed Gas Oxygen Tanks Customer / Patient Handout

3. Know approximately how long your oxygen supply will last. Refer to one of our charts.

To use the oxygen in the tank:

 Turn the level or knob counter-clock-wise to open the tank all the way.

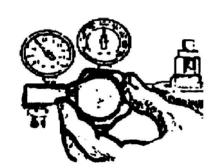
The pressure gauge will show the amount of oxygen pressure in the tank.



 Adjust the flow control knob until the indicator is at your prescribed flow.

Do NOT change flow rates without your doctor's order.

Too much oxygen can be toxic.

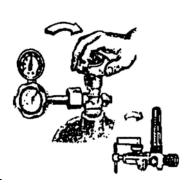


- Fit the cannula to your face so that it is comfortable. When not using the oxygen, remove your cannula.
- Turn the tank off by turning the knob clockwise.

The flow of gas will stop when the tank is empty. Both gauges will show "0".

Do NOT allow oxygen to flow into cushions, pillows, etc.







### Prepared for: Providence Home Medical Equipment

33005

# **Using Oxygen at Home**

Your doctor has prescribed oxygen to help make breathing easier for you. You will be shown how to use your oxygen unit. Below are some guidelines on using oxygen at home safely. Do all steps each time you use your oxygen unit.

### 1. Check Your Supply

- Pressurize your oxygen tank.
- Check the oxygen gauge on the tank to be sure you have enough. When the gauge reads 1/3 full, call to order more oxygen.
- If you have a humidifier bottle, check the water level. When it is at or below 1/2 full, refill it with sterile or distilled water.

# 2. Attach the Tubing

- Attach the cannula tubing to your oxygen source as you have been shown.
- Be sure the tubing is not bent or blocked.

#### 3. Set Your Prescribed Flow Rate

- Set the oxygen to flow at the rate your doctor has prescribed. This is\_\_\_\_\_
- Never change this rate unless told to by your doctor.

#### 4. Insert the Cannula

- Insert the nasal cannula into your nose and breathe through your nose normally.
- If you're not sure whether oxygen is flowing, place the cannula in a glass of water. Bubbles mean that oxygen is flowing.



A nasal cannula should be placed with the prongs arching toward you.





### Prepared for: Providence Home Medical Equipment

32463

# **Using Oxygen Safely**

Using prescribed oxygen can help you avoid shortness of breath and be more active. To reduce the chances of fire and other hazards, you need to follow guidelines when using your oxygen unit. Remember these Do's and Don'ts:

### Oxygen DO's

- **Do** keep sources of flame at least 5 feet away from where your oxygen unit is being used or stored. This includes cigarettes, matches, candles, fireplaces, gas burners, pipes, or anything else that could start a fire.
- **Do** keep the oxygen unit at least 5 feet away from sources of heat such as space heaters, steam pipes, furnaces, and radiators.
- **Do** ask the medical equipment company if you should keep the oxygen unit away from other appliances, such as TVs and radios.
- **Do** turn off the oxygen unit completely when it's not in use.
- **Do** have a fire extinguisher nearby. Make sure you and others in your household know how to use it.



### Oxygen DON'Ts

**Don't** smoke, and don't allow others to smoke near you. Post a "No Smoking" sign in your home.



**Don't** use aerosol sprays such as air fresheners or hairspray near the oxygen unit. Aerosols are very flammable.



**Don't** use vapor rubs, petroleum jelly, or oil-based hand lotion. These are flammable. Use water-based products instead.



Don't use oxygen while cooking with gas. Ask the medical equipment company about other types of cooking.



**Don't** oil the oxygen unit. And don't use it with oily or greasy hands.



**Don't** place a liquid oxygen unit on its side. The oxygen inside can evaporate.





### Prepared for: Providence Home Medical Equipment

32461

# **Traveling with Oxygen**

It's okay to travel with oxygen. You just need to plan ahead. Call your healthcare provider to get copies of your oxygen prescription and any other paperwork you'll need. Depending on where you're going and how you're getting there, you may need to arrange for oxygen to be delivered. Your doctor's office or medical equipment company can help with this. Before you travel, call the carrier to find out the requirements for traveling with oxygen. Give yourself plenty of time to make needed arrangements.



### By Car

Keep the windows open a crack so air can circulate. If you're using liquid oxygen, place the unit upright on the floor or on the seat beside you. If possible, secure it with a seat belt. Put extra oxygen units behind the seat. (Don't put them in the trunk—it's too hot.) **DO NOT SMOKE** or let anyone else smoke in the car.



#### By Plane

Oxygen tanks aren't allowed on airplanes. But many airlines will supply you with oxygen for a fee. Call the airline in advance to make arrangements. Keep in mind that this oxygen is only supplied while in the plane—not in the airport. You must arrange to have oxygen delivered to your destination, as well as to any layovers during your flight.



#### By Bus or Train

Call the carrier in advance and tell them you're traveling with oxygen. You can likely take your own oxygen on board. You may need to show a copy of your prescription first.



## By Ship

You can probably bring your own oxygen on board the cruise ship. Call to make arrangements. The cruise line will likely need a letter from your doctor, a brief medical history, and a copy of your oxygen prescription. You must arrange for oxygen units to be delivered to the cruise ship.



Prepared for: Providence Home Medical Equipment

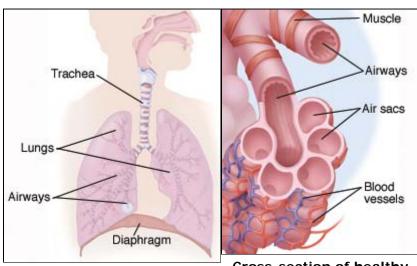
32437

# **How Your Lungs Work**

The lungs' job is to get air into and out of the body. Inside the lungs, air travels through a network of branching **airways** (tubes) made of stretchy tissue. Each airway is wrapped with bands of muscle that help keep it open. The airways branch out and get smaller as they go deeper into the lungs. The smallest airways end in clusters of tiny balloon-like air sacs (alveoli). These clusters are surrounded by blood vessels.

#### When You Breathe

- When you inhale (breathe in), air enters the lungs. It travels down through the airways until it reaches the air sacs.
- When you exhale (breathe out), air travels up through the airways and out of the lungs.



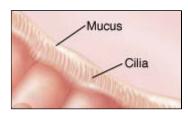
Cross-section of healthy airways

### What the Lungs Do

The air you inhale contains oxygen, a gas your body needs. When this air reaches the air sacs, oxygen passes into the blood vessels. Oxygen-rich blood then leaves the lungs and travels to all parts of the body. As the body uses oxygen, carbon dioxide (a waste gas) is produced. The blood carries this back to the lungs. Carbon dioxide leaves the body with the air you exhale.

# To Keep the Lungs Clean

The cells in the lining of the airways produce a sticky secretion called **mucus.** The mucus traps dust, smoke, and other particles in the air you breathe. The cells have tiny hairs called **cilia.** They sweep mucus up the airways to the throat, where it's coughed out or exhaled.



A microscopic view of normal cilia