

Your Home Oxygen Guide



Your Journey Towards Feeling and Breathing Better

Patient Name: _____

Treatment Start Date: _____

Therapist Name: _____

Phone Number: **1-833-904-AIRE (2473)**

Prescription	Date: / /	Date: / /	Date: / /	Date: / /	Date: / /
Rest: Day - Flow LPM Night - Flow LPM					
Exertion: Flow LPM OR Pulse Setting					
Equipment - Cylinder Size					
Weight/Size					

We are always here to answer your questions.

Please call us for any questions or assistance on our products and services, or when you need to:

- See a respiratory therapist
- Order additional products like tubing, cylinders, portable solutions and more
- Return a message from our team
- Seek support at any stage of your therapy

If you experience a sudden change in your medical condition please seek immediate medical attention; you may need to use the emergency service in your area (911 if available in your area)



Getting Started With Oxygen Therapy

You may feel overwhelmed or confused and this is normal. This Oxygen Therapy booklet provides all the information you need to help you feel confident in your therapy. VitalAire is here to help.

VitalAire is Canada's leading and accredited provider of home oxygen and sleep apnea services. We work with hundreds of Canadian respiratory professionals throughout the country, empowering patients who require oxygen therapy or sleep apnea treatment.

VitalAire will provide you with coaching, education from our team of respiratory therapists and ongoing therapy support.

300,000+
patients
served

1,000+
employees

50+ years of
experience

100+ clinics
coast to coast



Inside This Booklet:

- What you Should Know About Oxygen Therapy
- Understanding Your Prescription
- Your Oxygen Equipment
- Home Oxygen Safety
- Tips (travel, cleaning, etc.)
- Integrating Your Oxygen Therapy
- Funding
- Troubleshooting
- Summary of VitalAire Visits
- VitalAire Contact Information

What you Should Know About Oxygen Therapy

Why Oxygen?

- Oxygen (O₂) is essential for life. The natural air you breathe contains 21% oxygen. Once inhaled, the oxygen diffuses through small sacs in your lungs called alveoli, moves into your bloodstream, then travels to all of your organs and tissues.
- Certain medical conditions can prevent some oxygen in your lungs from diffusing into your bloodstream, which can leave you with particularly low levels of oxygen.
- A person's blood oxygen level is referred to as Oxygen Saturation Level (SaO₂) or sats. SaO₂ is measured through a blood test.
- Another way to measure your oxygen level without requiring a blood test is with a pulse oximeter. The pulse oximeter measures Peripheral Capillary Oxygen Saturation (SpO₂) and can be measured at your home.

Benefits of Home Oxygen Therapy

When your SaO₂ or SpO₂ are too low, you may experience difficulty breathing, lack of energy, and trouble concentrating. The purpose of oxygen therapy is to bring your oxygen levels into a healthier range. This supplemental oxygen provides a higher concentration of oxygen than in the air you naturally breathe, helping you feel better and more energized every day.

Your Daily Life will Improve With Oxygen Therapy:



Live longer and in good health



Improve your breathing and feel less tired



Increase your mobility and social life



Improve your sleep and quality of life

Your treatment will be effective if you use it as prescribed.

If you want to know more about your condition, visit these websites:

• Livingwellwithcopd.com

• [IPF websites](#)

• [Lung CA's / other lung disease conditions](#)

Understanding Your Prescription

Your healthcare provider has prescribed home oxygen therapy based on your health needs. There are three main parts to your prescription:

- **Flow rate** is the quantity of 'extra' oxygen you need. Your doctor may want your flow rate to remain constant, or to change for different activities such as when you're sleeping, or active in the daytime. Your flow rate is shown in litres per minute (LPM).
- **Duration of use** refers to the number of hours per day oxygen therapy should be used. Typically 16 - 24 hours of use per day is required to be effective.
- The **oxygen equipment** provided will be based on the assessment by your home oxygen therapist on which products meet your lifestyle needs and available funding.



⚠ You should **NEVER** change your oxygen flow rate without a new prescription from your physician or respiratory therapist after being assessed!

It is important that you **contact VitalAire** whenever you have a change in your oxygen therapy prescription (as a result of physician or hospital visit).

Your treatment will only be effective if you use it as prescribed.

Your Oxygen Equipment

All sources of home oxygen are equivalent in terms of clinical effectiveness.

- Oxygen stationary concentrators are devices that filter room air and deliver a higher concentration of oxygen for you to breathe.
- Portable oxygen concentrators (POC's) operate the same way as stationary ones, but they run on batteries as opposed to electricity. Portable oxygen concentrators usually deliver oxygen on pulse mode while stationary concentrators deliver oxygen continuously.
- Oxygen cylinders contain oxygen under high pressure which is released as you need it.

Your respiratory therapist will perform a thorough clinical assessment and suggest the correct delivery system(s) for your lifestyle and environment.

Stationary Concentrator



The stationary concentrator draws from room air to deliver oxygen. It is easy to operate and is designed to be stationary. It is electrically powered and never runs out of oxygen as long as there is no machine malfunction. **It is for daytime home use and sleep.**

To Operate Your Concentrator, you Will Need to:

- Plug directly into a wall outlet with no extension. Ensure that the outlet is not controlled by a light switch.
- Turn the flow dial to the level that the doctor has prescribed.
- Attach an oxygen tubing nipple or humidifier to the oxygen outlet on the concentrator.
- Attach the kink-resistant oxygen tubing to the flow connector on the concentrator (or humidifier if one is being used).
- Attach the other end of the kink-resistant oxygen tubing to the cannula or mask using a straight or swivel connector.
- If using a humidifier, the water in the humidifier will bubble while the oxygen is flowing.
- Adjust the nasal cannula for a comfortable fit.

If you need to read the flow rate, the centre of the ball matches the line on the numbered scale. When the concentrator is not used, do not forget to turn it off.

Portable Oxygen Concentrators

Like the stationary concentrator, the portable oxygen concentrator draws from room air to deliver oxygen. It does not require refills or replacement. It usually delivers oxygen on pulse mode.



It is easy to operate and is designed to be mostly portable. It is battery operated (but can also be used with a normal electrical outlet or with a 12V car adaptor). **It is ideal for active lifestyles away from home.**

Cylinders

- Cylinders contain compressed oxygen and are available in different sizes. Once empty, these cylinders need to be replaced and you will be scheduled to receive cylinder deliveries at regular intervals. If you are using a homefill system you will refill your cylinders yourself.
- Portable cylinders are typically provided for mobility and/or for back-up, in case of concentrator or power failure.
- A cylinder will deliver oxygen either with a regulator, which is a device that connects to the cylinder to show pressure and regulate “continuous” flow or with an Oxygen Conserving Device (OCD) which delivers “puffs” of oxygen only when you breathe in.
- An OCD will extend the duration of a cylinder significantly compared to continuous flow. To use an OCD you will need to be assessed by a healthcare professional.
- This device may not work for everybody and it may not be covered by your government funding program.
- Both regulator and OCD have gauges to help you determine how much oxygen is left in the cylinder.



OCD (Oxygen Conserving Device)



Cylinder size D



Regulator

Setting up a new Cylinder

Wash your hands: they must be clean and free of oil or greasy products. Select a full cylinder.

- Place the cylinder in the cart (tighten retaining screw) or slide into carry bag.
- Remove the plastic integrity seal from the neck of the cylinder by pulling up on the ring to separate the green cover.
- Examine the regulator/OCD for any visible damage.
- The flow selector of your regulator/OCD must be set at the zero (0) or OFF setting.
- Verify there is a washer over the largest pin of the regulator.
- Slip the regulator/OCD over the cylinder neck. Line up the pins on the regulator/OCD towards the holes in the cylinder neck. Position the two pins and one washer into the matching holes.
- Tighten the hand-screw clockwise to hold the regulator/OCD on the neck of the cylinder. Never use excessive force or tools to screw the regulator/OCD on to the cylinder.

Using the Cylinder

- Once the regulator/OCD is firmly attached to the cylinder, position yourself so that the cylinder is between yourself and the regulator/OCD (cylinder valve outlet facing away) when opening the cylinder valve. Never stand in front of the cylinder outlet while opening the valve. Always make sure the cylinder is secure and not at risk of falling down.
- When the regulator is in place, SLOWLY open the cylinder valve on the top of the cylinder post using a cylinder wrench.
- Turn the wrench as far counterclockwise as possible, then back one full turn.
- If you hear or feel a loud leak when you start opening the valve, immediately close the valve by turning clockwise and tighten until fully closed. This is not a dangerous situation but simply means the regulator is not properly attached to the cylinder or the round cylinder washer in the middle of the regulator is missing or worn out and needs to be replaced. **You should always be provided with at least one spare washer when you are started on oxygen therapy, please contact VitalAire**

and ask for a new spare one If you use that washer.

- Read the amount of pressure in the cylinder on the pressure gauge.
- Connect the cannula to the oxygen outlet.
- Turn the flow dial on the flowmetre until the indicator is set at your prescribed litre flow.



- When a cylinder is new and full, the needle in the gauge will point to the 2000 mark (PSI) on the gauge, regardless of size of the cylinder. Pressure gauges work like a gas tank in a car, as you use the oxygen the needle travels towards the empty or red zone.
- Eventually the tank will be empty and the cylinder will need to be refilled. The beginning of the red zone means there is $\frac{1}{4}$ (25%) of the cylinder remaining. Check the remaining contents of the oxygen cylinder on a regular basis when in use. Review the consumption tables for the duration of the cylinder at your flow setting.

Replacing an Empty Cylinder

- Be ready to change your cylinder when the pressure gauge reads below 500 psi. Replace the cylinder when it reads 100 psi or when the contents remaining will not accommodate your planned time away from home.
- Never empty the cylinder completely.
- Turn the cylinder valve off first, allowing the pressure to drain from the display gauge, when the needle is pointing to zero, turn the flow selector to zero (0) or OFF setting and then the regulator can be disconnected.
- Loosen the hand-screw until the regulator/OCD pins are out of the pinholes, lift regulator/OCD off of the cylinder.
- Loosen the cart retaining screw and remove the empty cylinder from the cart or slide empty cylinder out of carry bag.
- Safely store the empty cylinder in a separate area from the full cylinders.
- Follow the instructions for setting up a new cylinder.

Cylinder Duration Tables

Usage times will vary depending on the cylinder size, the regulator/OCD type and your respiratory rate. The following charts are meant to be a general guide only. Your actual usage times may vary.

With an OCD (based on 20 breaths per minute). If you use different flow rates when at rest & on exertion then this duration table will vary greatly with actual use.

Hours of use based on 20 breaths per minute			
Flow rate	M-6 (160L) cylinder	Size 3 (D, 390L) cylinder	Size 5 (E, 690L) cylinder
1.0 LPM	8.3	21.0	34.5
2.0 LPM	4.1	10.5	17.2
3.0 LPM	2.8	7	11.5
4.0 LPM	2.1	5.2	8.6
5.0 LPM	1.7	4.2	6.9
6.0 LPM (if available)	1.4	3.5	5.8

- Some OCD's are battery operated. On those devices, check the battery energy level prior to attaching it to the cylinder.
- Always close the cylinder valve when not in use. Turn the cylinder valve off first (OCD must be in continuous flow mode to allow the pressure to drain) then when the needle is pointing to zero, turn the flow selector to zero.

⚠ Do not use OCD while sleeping. Do not use OCD with a mask, humidifier or low flow cannula.

Duration table for a size 3 cylinder (D size, 390L, KNEE HIGH)
with a regulator (continuous flow)

Hours of use based on flow setting					
Pressure	1 LPM	2 LPM	3 LPM	4 LPM	5 LPM
Full 2000 psi	6.5	3.25	2	1.5	1.25
¾ Full 1500 psi	5	2.5	1.5	1.25	1
½ Full 1000 psi	3.25	1.5	1	0.75	0.5
¼ Full 500 psi (red zone)	1.5	0.75	0.5	0.3	0.25

Duration table for a size 5 cylinder (E size, 690L, HIP HIGH)
with a regulator (continuous flow)

Hours of use based on flow setting					
Pressure	1 LPM	2 LPM	3 LPM	4 LPM	5 LPM
Full 2000 psi	11.5	5.75	4	3	2.25
¾ Full 1500 psi	8.5	4.25	3	2	1.75
½ Full 1000 psi	5.75	3	2	1.5	1
¼ Full 500 psi (red zone)	3	1.5	1	0.75	0.5

Soft Goods, Disposables and Accessories

Soft goods, disposables and accessories are the terms used to refer to all of the pieces of equipment required to deliver the oxygen from the concentrator, cylinder or liquid unit to yourself.

Nasal Cannula



It is a long tube which carries the oxygen to two short prongs. The cannula inserts just into the opening of the nostrils. The curve of the two short prongs should go along the curve of the nostrils. The oxygen flows naturally into the nose. There are various styles to suit your comfort and profile.

Oxygen Tubing



It is the extension of tubing to the nasal cannula or mask. The total tubing length should never exceed 50 feet (15 metres).

Oxygen Mask (if applicable)



Oxygen masks are only available through a physician prescription. The healthcare professional will ensure that the best unit is provided and being used.

Oxygen Flow Connectors (also called “nipple”)



The oxygen flow connectors are required to connect the oxygen tubing to the concentrator or liquid system. The shape may have an appearance of a Christmas tree. It may be green, black or white in colour. Always have a spare one.

Oxygen Connectors



The oxygen connectors are used to attach the oxygen tubing to the cannula or mask. A connector must be used to join the two tubing ends together. Connectors are straight in nature, and some have a swivel component. Always have a spare one.



Soft goods replacement

- Replace cannula monthly
- Replace tubing and humidifier every six months
- Discard any used items
- Always keep spare cannula and tubing on hand
- Call VitalAire during business hours when supplies are running low
- Always keep your old long tubing as a spare in case of an emergency!

Humidifier (provided upon approval of your Healthcare Professional, if your prescription is > 5 LPM)

- Takes the place of the oxygen nipple connector or upside down Christmas tree.
- The humidifier must be filled with distilled water, as tap water contains mineral deposits which may clog the jet holes in the humidifier.
- Fill the humidifier only to the 'maximum fill line'.
- Carefully screw the lid back on the humidifier after filling (be careful not to cross thread the lid).
- Refill with clean distilled water daily.
- Clean the humidifier regularly and carefully to avoid growth of harmful bacteria.

Water Traps (provided upon approval of your Healthcare Professional)

- A water trap is designed to trap some of the condensation that forms in the tubing.
- Condensation occurs when a humidifier is used and the air outside the tubing is colder than the air inside the tubing. A water trap is usually placed between the nasal cannula and extension tubing.
- Water traps can be easily broken if stepped on, always have a spare one. If broken, the water trap can be replaced by an oxygen connector until a replacement water trap is obtained. When the water trap is full of water, it should be emptied.

Home Oxygen Safety

Gaseous Oxygen is a Colourless, Odourless and Tasteless gas

- Oxygen is not flammable, oxygen supports combustion and will cause other materials to burn faster and hotter than normal.
- When you are using oxygen, the oxygen concentration around both you and your equipment is greater than room air, creating an oxygen-enriched environment.
- An oxygen-enriched atmosphere creates a potential fire hazard as oxygen cannot be detected by the normal senses.

It is important to air out your home every day!



For your safety, certain rules must be followed without exception to prevent dangerous situations such as a fire or an explosion

For a fire or explosion to occur, three elements need to be present:

- **Oxygen:** is present in room air and your oxygen equipment
- **Fuel:** any combustible material that is a solid, liquid or gas (eg. clothing, furniture, wood, coal)
- **Heat or a source of ignition:** cigarettes, friction, electrical faults, heat and sparks. This provides the energy necessary to increase the temperature of the fuel to a point where the ignition can occur.

Do's and Don't's

What you should do



A no-smoking sign needs to be placed on your door or in window clearly visible at all times to anyone approaching your home.



It is recommended that an all-purpose fire extinguisher is available in your home and in your vehicle and you and your family should know how to use it. You should have a working smoke detector as well. In case of fire, evacuate the building immediately or if time permits, shut off the oxygen system and evacuate the building with portable system. Contact the fire department. Advise safety personnel who arrive on scene that there is oxygen equipment on the premises. The importance of having the "No Smoking" sign is critical in the unlikely event of a fire to alert first responders that oxygen is present.



Cook with care when using oxygen. Ensure the oxygen tubing does not stretch over the stove. The oxygen tubing can be tucked under your clothing or placed behind your back.



You and your oxygen equipment must be kept 5 feet (1.5 metres) from any appliance that may produce a spark (electronic cigarettes, air conditioners, electric razors, toasters, hair dryers or fans).



You and your oxygen equipment must be kept 10 feet (3 metres) from sources of heat or open flames (for example furnace, gas stoves, barbecues, candles, fireplaces (gas and wood burning)).

What you should NOT do



Never smoke with or near your oxygen. Do not smoke in the room where your home oxygen equipment is. This rule must be followed by you and any person visiting your home! If someone in your home smokes, they must smoke outside. Smoking should never take place in the room where the oxygen equipment is stored or when you are using your oxygen.



Do not use aerosol (hairspray, air freshener in aerosol, deodorant) neither solvent (alcohol, gas, paint, etc.) near your oxygen.



Do not use oil-based hand cream, facial cream or any products containing petroleum-based ingredients (for example: Nivea®, Vaseline®, and Vick's Vapo-Rub®).



Do not handle your cylinder with greasy hands. Do not carry your cylinder via the regulator. Only water-based lubricants are safe around the face and hands when oxygen is used (for example Muko Jelly, Secaris®, Cannease®). If you experience dryness of your nose, try to use a water based nasal lubricant, a room humidifier. If it does not improve, contact your healthcare professional.



Do not store your portable oxygen equipment on your electric wheelchair or scooter. Only carry oxygen on these devices while they are in use.



Do not store your oxygen equipment in a closed environment such as a cupboard or a closet. Your oxygen source must be stored in an adequately ventilated place to prevent oxygen enrichment: Never place the oxygen source near curtains. Never cover the oxygen source with clothing or blankets. Never carry or use a portable oxygen source under any clothing or blankets.



It is recommended that flammable products (propane, solvents, butane, etc.) should not be transported in the same vehicle with any containers of oxygen.

Do not smoke, do not use grease, do not use close to a heat source and air out your home regularly!

Where to put Oxygen Equipment

Cylinders:

- Store them in a secure location to avoid theft or tampering by unauthorized people.
- Oxygen cylinders must be securely stored upright in a manner which prevents them from falling or being knocked over (against a wall or in a corner).
- Cylinders can also be stored horizontally where they cannot roll or be damaged.
- It is important to keep the full and empty cylinders in separate locations to ensure no confusion is possible.
- Store near an exit to facilitate ease of use and delivery exchange.
- Always secure cylinders (cart or bag) before and during use.
- Turn the cylinder valve off when the cylinder is not in use.
- Cylinders should be secured in a vehicle so that they do not roll around or bang against one another while the vehicle is moving.



Stationary Concentrator:

- Position upright in a well-ventilated area when in use: do not operate on a thick carpet.
- Ensure that the air inlet of the concentrator is four to six inches (10-15 cm) away from walls, curtains, or other things that may restrict airflow.
- Do not use the concentrator in high humidity or in areas where water might be spilled on it, e.g. do not use it in the bathroom.
- A typical concentrator will make the room it is in warmer depending on the size of the room. You may want to open a window to allow fresh air to enter the room.
- In the summer your concentrator may overheat if the room it is in exceeds 30 degrees Celsius.



Tips to Live Better With Oxygen Therapy

- You've been prescribed home oxygen.
- Your mobile source of oxygen allows you to be more independent at home, which will give you the confidence and ability to go out.
- Being active is a great way to slow down the progression of your condition. An active and motivated patient can greatly improve their quality of life through education and participation in a respiratory rehabilitation program.
- It is normal to be scared or concerned to go out with your oxygen. However, it is very important to maintain an active lifestyle and increase your activity level.



Avoid touching your eyes, nose or mouth



Avoid close contact with other people who are sick



If you have a scheduled visit from one of our therapists, inform them if you are sick



If you are sick, stay home and limit contact with others



Cover your nose and mouth with a tissue when coughing or sneezing, and throw the tissue away immediately



Wash your hands



Practice good health habits:

- Get plenty of sleep
- Be active everyday! Walking, going out, gardening, enjoying hobbies, socializing
- Manage your stress
- Drink plenty of fluids
- Eat nutritious foods
- Avoid smoking

Cleaning Your Equipment

Your Concentrator

Cleaning your equipment is essential to minimize the risk of infection. Clean your concentrator once a week. You will need to clean its exterior as well as its inlet filter on the back or sides:

To clean the exterior:

- Turn the power switch to OFF AND unplug from electrical power.
- Wipe off the exterior of your concentrator with a damp (not wet) cloth.
- Allow the oxygen concentrator to dry before reconnecting to electrical power.

To clean the inlet filter:

If you cannot see an external sponge/foam filter that is about 1/2 inch (1.5 cm) thick on your unit, contact your Respiratory Therapist for filter maintenance.

- Remove the inlet filter from the concentrator and clean the lint from it.
- Wash the filter in warm, soapy water.
- Run warm water through the filter to rinse it, shake off the excess water and towel dry/ paper towel dry.
- Wait for the filter to dry (do not place it in the sun). Avoid running the concentrator without the filter in place, but your concentrator can operate without it while the filter is drying.

Your Soft Goods

Soft Goods	Cleaning Schedule	Cleaning Guidelines	Replacement Schedule
Nasal Cannula	Daily	Wipe the prongs with a damp cloth	4 weeks
Humidifier Bottle	Daily / Weekly	1. Empty water each day, rinse with warm water and refill with distilled water 2. Soak in vinegar/water (1:1) mixture for 20 minutes and rinse 3. Wash in warm soapy water then rinse	4 weeks
Oxygen Mask	Daily	Soak in vinegar/water (1:1) mixture for 20 minutes and rinse	4 weeks
Oxygen Extension Tubing	Weekly	Wipe with a damp cloth	3 - 6 months or as needed
Oxygen Connectors	Weekly	Wipe outside of tubing with a damp cloth	3 - 6 months or as needed
Water Trap	Every 1-2 days	1. Wipe outside of connector with a damp cloth 2. Empty and wash with soap and water 3. Soak in vinegar/water (1:1) mixture for 20 minutes and rinse	4 weeks

Deliveries

If your portable oxygen source is a cylinder or a liquid reservoir, then you will be scheduled for regular deliveries.

- Your VitalAire clinician will advise you of the delivery dates/schedules if applicable.
- All deliveries are made during normal VitalAire working hours which may include weekends.
- Please phone at least two days in advance of your delivery day to order supplies with your oxygen.
- In many areas, cylinders and/or supplies can be picked up at your local VitalAire office however you should always call ahead before going.

After hours services are for equipment malfunction or urgent calls only!

Travel Tips - Plan! Plan! Plan!

What you Need to do to Travel

- Contact VitalAire well in advance of your travel to arrange your needs. We recommend a minimum of two weeks notice for travel within your province and four weeks notice for national travel.
- If insufficient notification is provided, additional service costs may be incurred by the client, depending on the circumstances and related costs to VitalAire (e.g. airport fees, emergency arrangements).
- You are responsible to take your home oxygen equipment with you when you travel.
- If you are unable to travel with your existing equipment, additional equipment may be available and can be coordinated through VitalAire; additional rental fees will apply and are your responsibility.



- Consult your physician for any change in your prescription arising from travel.
- **If travelling by air** you are responsible to confirm oxygen requirements, equipment type and allowances with the specific airline prior to booking your flight. You may be required to rent different equipment to meet their criteria.
- **If travelling by boat, train or any other public transportation**, VitalAire recommends that you contact the transportation company to learn about their requirements for travelling with oxygen. Some documentation may be required which VitalAire will be happy to supply you with.



For patients in British Columbia:

When you travel within or outside of BC, the Home Oxygen Program (HOP) will not assume any additional travel fee costs. If you require additional equipment for travel, VitalAire can provide this equipment however additional rental fees will be applicable. Supplier equipment dropped off or picked-up at a location other than the HOP client's primary residence will incur a \$50.00 charge.

International Travel:

The HOP will not cover clients' equipment costs when travelling internationally; oxygen equipment cannot leave Canada unless a rental agreement is in place with the client. VitalAire may be able to provide international contact information; we are located in more than 35 countries worldwide.

Traveling Safely by Vehicle

Securing your oxygen source is the most important factor in transporting oxygen safely. An unsecured or improperly secured container could become dislodged during transport, creating danger to both the vehicle occupants and other vehicles on the road.



To safely transport oxygen in your vehicle, you will need:

- Adequate ventilation in the event of an oxygen leak.
- To safely secure your oxygen supply so the oxygen system is not free to move around the vehicle while it is in motion.

⚠ The risk found in transporting oxygen is directly affected by the amount of oxygen being transported. **VitalAire recommends that you carry a maximum of 10 cylinders** (M6, size 3 (D) or size 5 (E) cylinders) in your vehicle. If you require a greater amount of cylinders, then you will be required to schedule a delivery of the cylinders to your residence or destination.

- Compressed oxygen in cylinders is under high pressure (2000 psi). If the cylinders are damaged and not secured, the cylinders could become a projectile.
- Cylinders should never be transported in the trunk of a vehicle.
- Cylinders in use during transportation should be laid on the floor in the front passenger foot area or back foot area and should be secured to avoid the risk of rolling around the driver's feet.
- Your oxygen source should not be between your legs while driving!



Liquid oxygen is packaged in containers under pressure and at very low temperature (-273C), making it extremely cold. If the liquid units are damaged, the escaping liquid oxygen may cause injury to those in close proximity or damage whatever it comes in contact with. **Liquid oxygen cylinders that are not in use should be in an upright position during transport.**

Liquid oxygen cylinders are designed to vent small amounts of gas when not in use. The venting may or may not be heard. Ensure that the cylinder vent is not covered and that ventilation in the vehicle is on to prevent a buildup of oxygen inside the vehicle.

Integrating Your Oxygen Therapy

It is very important to listen to your body and your daily health status. Your condition can evolve and may periodically worsen (acute bronchitis, cold, shortness of breath, more secretions, etc.) If you do not feel well, contact your doctor.

Monitor Your Symptoms

In the first weeks after starting therapy, assess your health status by monitoring your symptoms and note if:


- **You feel better than before:** you feel improvement in your daily activities
- **You feel the same as before:** some symptoms still bother you
- **You feel worse than before:** some symptoms have worsened and/or new symptoms have appeared since the start of the therapy.

See your doctor if:



Your days

- **Shortness of breath with exertion:** you are short of breath during normal daily activities like walking, climbing stairs, etc.
- **Shortness of breath at rest:** you are short of breath even when sitting, eating or sleeping
- **Morning headaches:** you experience headaches in the morning when waking up



Your nights

- You have trouble sleeping and wake up multiple times during the night due to shortness of breath
- You wake in the morning not feeling refreshed
- You feel like you did not get a good sleep

Funding

You may have questions on how your oxygen therapy will be financed. It depends on the province where you live and on your medical condition. Most provinces have a government program to fund your oxygen therapy and it is usually based on medical criteria.

Funding if you Meet Medical Criteria

If you meet the medical criteria to have your home oxygen fully or partially funded by a government program, you will need a valid Health Card Number and a prescription from a designated physician to receive your funding. VitalAire will work with the funding organization to receive this funding. The amount of assistance provided by the government program and the amount of your co-pay are determined according to the provincial funding criteria.

The government program will require that you be reassessed within a certain period of time. Not being reassessed could result in a lapse in funding and an outstanding bill. Your VitalAire staff member will arrange your reassessment according to the provincial criteria when applicable.

Types of funding:

Continuous Oxygen	Nocturnal Oxygen	Exertional Oxygen
Funding usually includes a stationary concentrator and a mobility solution (the type of equipment provided for mobility depends on the province)	Funding usually includes a stationary concentrator and a backup cylinder (it may vary depending on the province)	Funding usually includes a mobility solution (the type of equipment provided depends on the province)

If you need more cylinders than the number provided by the funding program, you will be responsible to pay for the additional requirements. You will be required to complete a Pre-Authorized Payment (PAP) form.

Funding if you do not Meet Medical Criteria

Your private insurance company may cover a portion of the cost. You are responsible for contacting them to determine coverage and are financially responsible for the co-payment and deductible portions. VitalAire can assist you with this. If you do not have private insurance, you may opt to pay for the service personally. VitalAire has various options available. Please consult with your home oxygen therapist for service package options. You will be required to complete a Pre-Authorized Payment (PAP) form.



For more information on funding programs visit your local provincial funding program websites. Provincial funding programs may not cover your home oxygen therapy in the following cases:

- When hospitalized in acute or chronic care hospitals
- WCB and Group A veterans in some situations
- National Health and Welfare
- When not having a Health Card
- When not meeting funding criteria

Troubleshooting Your Equipment



Cylinders and OCD (Oxygen Conserving Device)

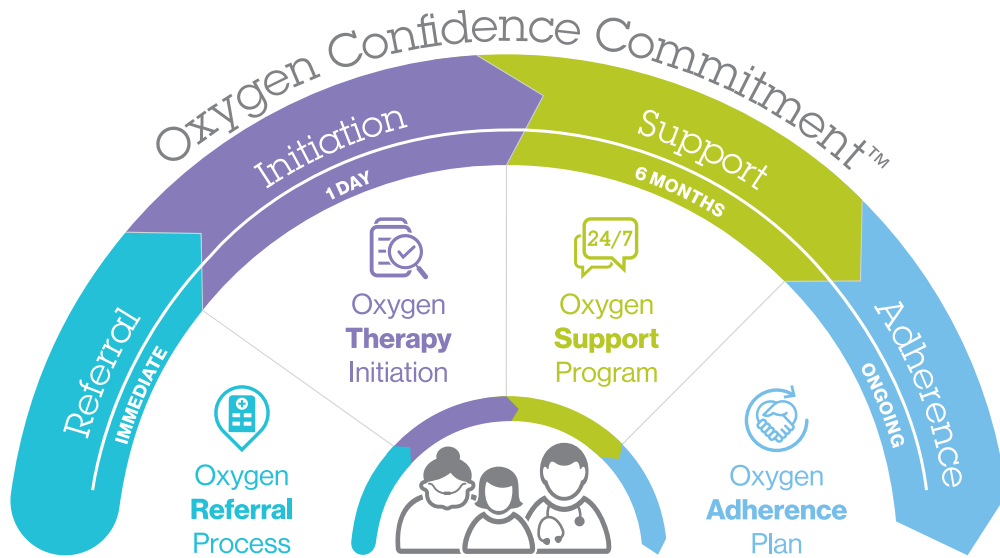
Problem	Possible Cause	Solution
Oxygen is not flowing	Flow selector turned to OFF position	Turn the flow selector to prescribed flow
	The tubing has become disconnected	Reconnect the tubing
	The oxygen tubing is leaking	Replace the tubing
	The cylinder is empty	Replace the cylinder
	Cylinder is turned off	Turn on the cylinder
	Regulator is not tight enough on the cylinder <i>There will be an ear-piercing leak if this happens</i>	Use the wrench to tighten the wing nut on the regulator
	No washer between regulator and cylinder <i>There will be an ear-piercing leak if this happens</i>	Replace washer or call VitalAire for a new one

Troubleshooting Specific to OCD (Oxygen Conserving Device)

Problem	Possible Cause	Solution
Oxygen is not being delivered even though the Pulse/Normal Breath indicator is flashing every time	Oxygen supply is empty	Check contents indicator on the device. If empty, switch cylinders
	Oxygen supply is not turned on	Turn the cylinder valve on by turning cylinder wrench counterclockwise
Cylinder not lasting as long as cylinder duration chart	If OCD is responding to your breath rate, your breath rate may vary, which causes the operation time to vary	OCD is probably working correctly
OCD will not pulse (battery or non-battery operated)	Is the battery good? (battery operated)	Check for function and replace battery if required
	Oxygen supply is empty	Check contents indicator on the device. If empty, switch cylinders
	Oxygen supply is not open	Turn the cylinder valve on by turning cylinder wrench counterclockwise
	Unit is not turned on	Switch to ON (battery operated) or turn the rotary flow selector (non battery) to the appropriate setting
	Unit is giving continuous flow	Change the mode switch from continuous to pulse
	Nasal cannula kinked, damaged or disconnected	Make sure nasal cannula is connected to the OCD and is in good condition. Try a new nasal cannula
	Cannula must be inserted into the nose	Check that all cannula connections are tight and the cannula is in the nose. Ensure tubing is not kinked
	Triggering sensitivity is temporarily interrupted due to pinched cannula, tubing, continuous flow use, etc.	Conserving device will automatically adjust within 1-2 minutes
	Inspiratory effort insufficient to trigger OCD	Try using a 4' cannula or a larger bore prong cannula model
OCD is alarming (battery operated)	Oxygen supply is empty	Check contents indicator on the device. If empty, switch cylinders
	Oxygen supply is not open	Turn the cylinder valve on by turning cylinder wrench counterclockwise
	Low battery	Replace battery
	Speaking or mouth breathing	Encourage use of nasal breathing
Conserving device works fine for a couple of minutes, then sensitivity seems to drift and may stop working	Using pediatric cannula or any cannula that restricts continuous flow capacity of 10 lpm	Replace with standard nasal cannula
	Speaking or mouth breathing	Encourage use of nasal breathing as excessive mouth breathing will not trigger the device

Stationary Concentrators

Problem	Possible Cause	Solution
Concentrator does not start and alarm sounds	Extreme cold start	Allow the unit to reach room temperature
	Plug may be disconnected	Re-insert plug snugly into outlet
	Breaker (reset button) in concentrator tripped (e.g. power surge)	a) Push reset button on concentrator if available b) If there is no reset button, turn concentrator off and wait for 30 seconds. Turn concentrator on again. If alarm continues to sound after warm-up period, call VitalAire for service
	Breaker in house tripped	Check breaker panel Use a different wall outlet should the problem reoccur
	Internal problem with unit	Switch to back-up system and call VitalAire for service
Machine becomes very hot and possibly shuts down while the power switch is turned ON	Air inlet filter blocked Is the concentrator in a closet or confined space? Is the concentrator in a room with the window closed and the temperature in the room is extremely hot?	Ensure that the air inlet filter of the concentrator is four to six inches (10 – 15 cm) away from walls, curtains or other things that may restrict flow
	Air inlet filter dirty	Clean or replace filter with new one
	Exhaust is blocked	Concentrators produce heat as they are running. If the unit is situated on thick carpet, enough air cannot circulate around the machine
	Compressor thermally shuts down due to excessive heat due to 3 possible reasons listed above	Shut unit off, allow unit to cool, fix the problem and attempt re-start
Water in tubing	Condensation from humidifier This often occurs due to cold and hot spots along the floor. The tubing that is in a warm spot will hold more humidity in the air. As the tubing runs along a cold draft by a door or window the air doesn't have the capacity to hold as much moisture so it condensates "rains out"	Elevate tube and blow water out with aerosol compressor, or blow out with an oxygen cylinder set at 10-15 Lpm
		Request a water trap from VitalAire
		Disconnect the humidifier jar and replace with an oxygen flow connector until other measures can be taken
Alarm doesn't sound	Dead battery, most concentrators have capacitors now	Call VitalAire to replace the battery or concentrator
Yellow/amber light appears	Oxygen concentration is lower than it is supposed to be, check to see if intake filter or exhaust is blocked	Clean or replace filter. Ensure that the unit is not on thick carpeting. If alarm continues, switch to back up oxygen supply and call VitalAire immediately
	Oxygen concentration is lower if flow set above units maximum flow concentrators will often alarm is running at 5/10 Lpm (max setting) for extended periods of time, especially in the peak heat of summer	Check to see the flow is not over the maximum level and correct. Dropping the flow by 0.5 Lpm will correct the warning/alarm condition. The patient may need to upgrade to higher flow concentrator or dual concentrator set-up
Complete power failure	If none of the above troubleshooting works, concentrator will require replacement	Switch to back up oxygen supply. Call VitalAire immediately
Machine is making excessive noise	Normal machine noise	Concentrators do make some noise. The unit can be placed in another room
	Vibration noise, sometimes caused by the casters vibrating on a hard surface such as tile or laminate flooring	Place a mat or towel under the machine to absorb the vibration noise
	Knocking sounds or particularly loud noises may be an internal problem with the unit	Switch to back-up oxygen system and call VitalAire for service
Oxygen not flowing	Kink in the tubing	Disconnect the tubing from the concentrator, if the ball in the tube shoots up then the tubing has been pinched off somewhere along its length
	Flow control dial has been turned off	Turn the flow control dial left (counterclockwise) to ensure it has not been inadvertently shut off



Therapist	Date of the visit	Observations (therapy, equipment, adherence, etc.)



We are always here to answer your questions.

vitalaire.ca