

Oxygen Concentrators

A User Guide



Service provided by:

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Important: Please ensure you read all accompanying literature supplied by your BOC Homecare Technician (HT) prior to using your home oxygen equipment. In particular, please pay attention to the section on not smoking or allowing others to smoke near your equipment.

The Basics

The atmosphere is made up of 21% Oxygen, 78% Nitrogen and 1% trace gases. Oxygen therapy works by providing the patient with enriched oxygen of a far greater percentage. Oxygen is colourless, odourless and heavier than air.

Oxygen concentrators draw in air and separate the oxygen from the other gases by absorption, leaving almost pure oxygen being delivered by tubing that connects to a canula or mask, enabling you to breathe more easily.

Tubing length can be varied but the maximum length that can be provided is 15 metres. The tubing can become a trip hazard so we suggest considering something called a Fixed Installation. This means keeping the concentrator in a fixed position and having

outlet points in several rooms, shortening the tubing length and reducing the risk of trips and falls. Your homecare technician can explain this in more detail and carry out a survey to see if it is suitable for you.

The concentrator plugs into the mains electricity supply in your home and uses about 350 Watts per hour (which is relatively low).

You will be supplied with a model of concentrator, dependent on your condition and individual needs.

If you have any questions please ask your homecare technician.

Airsep Newlife Elite and Intensity

Important parts of your concentrator



Using your concentrator

1. Connect the tubing and cannula to the oxygen outlet
2. Insert the power cord plug into the electrical outlet
3. Set the power switch to ON
4. Turn the flowmeter adjustment knob to the flow line prescribed by your physician
5. The concentrator is now ready for use
6. When not using the machine always turn the power switch to OFF

Everflo

Important parts of your concentrator



Using your concentrator

1. Connect your nasal cannula to the oxygen outlet port
2. Press the power switch to the ON position. Initially, all the LEDs will illuminate and the audible alarm will beep for a few seconds. After that time, only the green LED should remain lit. You can begin breathing from the device immediately even though it typically takes 10 minutes to reach oxygen purity specifications
3. Adjust the flow to the prescribed setting by turning the knob on top of the flow meter until the ball is centred on the line marking the specific flow rate
4. Put the cannula on as directed by your homecare technician
5. When not using oxygen, always press the power switch to the OFF position

Note: Everflo and V3 machines do not have filters that require cleaning.

Sysmed M50

Important parts of your concentrator



Using your concentrator

1. Connect the tubing and cannula to the oxygen outlet
2. Insert the power cord plug into the electrical outlet
3. Set the power switch to ON
4. Turn the flowmeter adjustment knob to the flow line prescribed by your physician
5. The concentrator is now ready for use
6. When not using the machine always turn the power switch to OFF

VisionAire V3 and V5

Important parts of your concentrator

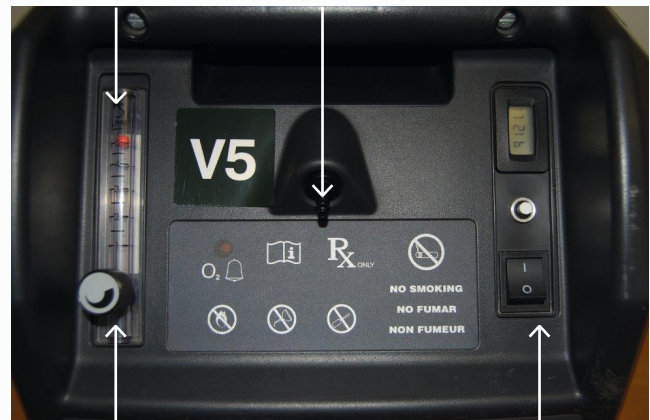
Flow meter Oxygen outlet



Flow meter knob

ON/OFF switch

Flow meter Oxygen outlet



Flow meter knob

ON/OFF switch

Using your concentrator

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6. When not using the machine always turn the power switch to OFF

Note: Everflo and V3 machines do not have filters that require cleaning.

Millennium

Important parts of your concentrator



Using your concentrator

1. Connect the tubing and cannula to the oxygen outlet
2. Insert the power cord plug into the electrical outlet
3. Set the power switch to ON
4. Turn the flowmeter adjustment knob to the flow line prescribed by your physician
5. The concentrator is now ready for use
6. When not using the machine always turn the power switch to OFF

After Use

Turn off the concentrator if you are not using it. The concentrator will only produce oxygen if it is plugged in and switched on. It will continue to do this until it is switched off.

1. Press the ON/OFF switch on the front panel to the off position
2. If you do not intend to use your concentrator for a number of hours, switch off at the mains socket.

Looking after your concentrator

Read the **Safety information** section carefully before carrying out the following simple maintenance tasks.

1. Clean the cabinet occasionally with a damp cloth and wipe dry. Avoid getting water into the internals of the unit. Do not use any form of cleaner or detergent when cleaning the concentrator
2. Wash the filter from the unit once a week. Your homecare technician will show you where the filter is located as this depends on the concentrator installed.
 - Remove the filter and replace with the spare filter
 - Hand wash in warm water
 - Rinse thoroughly and remove excess water with a clean absorbent towel
 - Allow filter to dry naturally

Note: Everflo and V3 machines do not have filters that require cleaning

Oxygen supplies

The oxygen concentrator can provide you with oxygen continuously for up to 24 hours per day every day of the year to meet your prescription.

Our technician will visit every six months to carry out regular maintenance checks on the oxygen concentrator. The technician will go through how to use your equipment with you again and check that the concentrator is set at the prescribed flow rate.

During the visit the technician will also check the tubing is in good condition and that the back-up cylinder (used for emergency use only such as power cuts) is full and operates correctly. The technician will also supply you with sufficient new cannulae or masks for use until your next scheduled visit, and any other consumable items which need replacing, for instance a spare filter for the concentrator.

If further spares are required please contact our Patient Service Centre on **0800 136 603**.

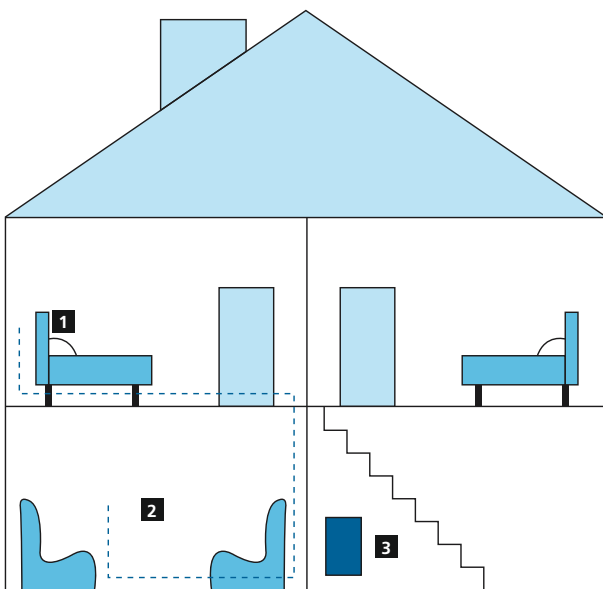
If you have any questions or concerns, please raise these with your homecare technician or call the helpline.

Fixed Installation

When your homecare technician first installs your oxygen equipment, you will be offered a fixed installation. This involves connecting clear plastic tubing from your concentrator to convenient points around your home. The advantage is you will be able to access oxygen in different rooms without having to move the concentrator or have cylinders placed around your home or have long lengths of tubing dragging around the floor. A fixed installation will reduce the risk of trips and falls. We may need to supply you with portable cylinders, to get you from one room to another or back to the switch. Long lines will not be supplied on a piped install as this in itself will create a trip hazard.

- Your homecare technician will complete a survey and risk assessment to ensure a piped installation is possible, then talk to you about the best location for the concentrator. Please note we will be unable to install units in the kitchen, as this is a fire risk.

Typical piped installation



1 Outlet, 2 Outlet, 3 Concentrator

- A wall tap will be placed in a suitable location to direct oxygen to the rooms where you need it. Please ensure that you are going to turn the switch to the desired room which you would like to occupy
- Tubing will be attached to skirting boards and door frames
- For safety, fire breaks will be fitted in the tubing
- A length of loose tubing will be left so you can move around each room
- A hole 0.4 inch (10 mm) wide may need to be drilled through walls to access rooms where you want the oxygen outlet
- Due to health and safety reasons your homecare technician will NOT be able to install fixed oxygen outlet in your bathroom or kitchen

Free line installation

Your BOC homecare technician will advise you of the safest place for your concentrator to be located in your home.

The technician will then attach a length of tubing with fire breaks to the concentrator that will allow you to walk around your home whilst using the oxygen.

If you decide after having a free line installation that this is not right for you, we are happy to re-visit and install a piped oxygen system.

Caution

As the tubing is free to move as you walk, we advise patients who are frail or at an increased risk of tripping to make sure they are happy to have the tubing move freely around them.

Secured cylinder installation

Should you require your free standing cylinders secured within your home we are able to offer that service. This is highly recommended if there are children around or visiting the home.

These cylinders can be secured to your wall if required using a specialist fixing device. This will prevent the cylinders from falling or being pulled over in your home.



Dos and Don'ts

General

- On installation the homecare technician will set the concentrator to the prescribed flowrate setting. This is not to be adjusted. Never use a different flowrate unless advised to do so by your healthcare professional. Adjustments to flowrate are to be done by the homecare technician
- Follow the advice we have given you about where to safely position your concentrator when it is in use
- Keep your concentrator upright
- Do not alter the original installation in any way without first contacting us
- Position the concentrator at least 12 inches (30 cm) away from walls or other obstructions to ensure the air intake is not obstructed
- Position the concentrator at least 10 feet (three metres) away from naked flames such as open fires, gas fires and cookers and at least five feet (1.5 metres) away from other heat sources or electrical appliances.
- Always report any incidents, near misses or general safety concerns with regard to your oxygen supply.

IMPORTANT: Smoking guidance

- Smoking around oxygen is extremely dangerous and may cause clothing, hair and skin to catch fire and burn much more vigorously than in air.
- Never smoke or allow someone else to smoke whilst using your oxygen equipment.
- Make sure you ventilate your clothing in the open air for at least 20 minutes before smoking or going near an open flame or source of ignition.
- You should follow these same safety principles with electronic cigarettes

Back-up cylinder

- You will be supplied with a high capacity back-up cylinder for use in an EMERGENCY ONLY (such as a power cut). To ensure you have sufficient oxygen in an emergency situation, please do not use this cylinder for any other use.

Power lead

- Always use the electrical socket identified as suitable during installation.
- Allow enough slack on the power cord to prevent accidental unplugging.
- Do not use extension cables, unless instructed to do so.
- Do not move or pull the concentrator by the power lead as this may damage the internal connections.

Power

- Never leave your oxygen concentrator running when it is not in use.
- Never open or remove the concentrator cover at any time.
- Only authorised personnel should carry out any repairs on your oxygen concentrator.

Cleaning

- Switch off and un-plug your concentrator from the mains supply when removing or replacing the filter.
- Regularly clean the air inlet filter of your concentrator as instructed in the Looking after your concentrator section of this guide.
- After rinsing allow your filter to dry naturally. Please ensure that it is completely dry before replacing in machine
- Do not apply heat to the filter.

If you have been supplied a Respironics Everflo machine there are no filters for you to clean. All filters are internal and will be replaced during your routine service every six months. There is a grill at the air inlet which needs to be cleaned with a vacuum cleaner weekly – your homecare technician will show you how to do this.

Face masks and cannulae

Nasal cannula

A nasal cannula is a narrow, flexible plastic tube used to deliver oxygen through the nostrils. It connects to an oxygen source on one end and has a loop at the other end with dual pronged extended openings at the top of the loop. The prongs are slightly curved to fit readily into the front portion of the nostrils. The tubing of the loop is fitted over the ears and is brought together under the chin by a sliding connector that holds the cannula in place.

Face masks

An oxygen face mask is a plastic device that is shaped to fit over your nose and mouth. It is used to deliver oxygen as you breathe through either the nose or the mouth. An oxygen mask has holes either side which allows air to enter the mask and dilute the oxygen, as well as allowing exhaled carbon dioxide to leave the mask. It has narrow oxygen tubing fixed to the nozzle on the mask, the other end is then connected to the oxygen supply. An adjustable elastic band is connected to each side of the mask and slides over the head and above the ears to hold the mask firmly in place.

Hygiene

Use a soft damp cloth to regularly clean face masks and nasal cannulas in accordance with the manufacturer's instructions. Do not use cleaning agents.

Suggested replacement frequency

The cannula condition can deteriorate with age and it is recommended that the cannula is changed every month.

Cannulas can become blocked with nasal fluids. Where this is a problem more frequent replacement may be required.

Troubleshooting.

Symptom	Possible cause	Solution
Unit does not operate.	<ol style="list-style-type: none"> 1. Power cord not properly inserted into wall outlet 2. No power at wall outlet 3. Circuit breaker has been activated (selected units) 	<ol style="list-style-type: none"> 1. Check power cord connection at the wall outlet 2. Check your home circuit breaker and reset if necessary. Use a different plug socket if occurs again 3. Press the concentrator circuit breaker reset button (if equipped) located below the power switch. Use a different plug socket if situation occurs again. <p>If above remedies do not work, contact us on 0800 136 603.</p>
Continuous alarm sounds.	No power at electrical outlet.	Check power source and wall switch. If other electrical items are not working, the ring main on which the concentrator is fitted may have tripped. Check the house fuse box.
Limited oxygen flow.	<ol style="list-style-type: none"> 1. Dirty or obstructed filter. 	<p>Remove filter and replace with spare. Wash dirty filter in warm water and leave to dry.</p> <p>Please note: if you have been supplied an Everflo concentrator, there is no removable filter. Remove box at the rear of the Everflo and vacuum clean the air inlet grill</p>
	<ol style="list-style-type: none"> 2. Defective nasal cannula or mask. 	Remove nasal cannula or mask from tubing. If correct flow is restored, replace with new cannula or mask. Check tubing for kinks or obstruction
Alarm sounds intermittently.	Equipment.	Contact us on 0800 136 603 .
Unit does not alarm or weak alarm sounds when unit is turned on.	Battery running out.	<p>This does not affect the operation of the unit itself. Contact us and we will arrange for our homecare technician to visit you and replace the battery.</p> <p>Turn off concentrator. Revert to back-up oxygen cylinder. Contact us immediately on 0800 136 603.</p>
All other problems.		Turn off concentrator. Revert to back-up oxygen cylinder. Contact us immediately on 0800 136 603 .

Power Failure/Concentrator Breakdown

What to do if your oxygen concentrator breaks down or you have a power failure.

Switch to your back-up cylinder and call the Patient Service Centre on **0800 136 603** to explain what the problem is. They will ask you a series of questions to determine what the problem might be. It is crucial that you give them as much information as you can. They will then give you advice on how to fix the problem or if this is not possible, they will arrange for one of our homecare technician's to visit you. Our free phone line **0800 136 603** is open 24 hours a day every day of the year to respond to emergencies.

For more information on power cuts, please contact on of the following:

East of England

UK Power Network tel **0800 316 3105**

East Midlands

Western Power tel **0800 678 3105**

Northern Ireland

Northern Ireland Electricity tel **03457 643 643**

If you feel unwell then it is important that you contact your doctor so that he/she can provide guidance.

Back-up cylinders

These cylinders are provided for use in case of power failure or breakdown of the concentrator.



Electricity Refund

What is an electricity refund?

As part of our service we will refund the cost of electricity used by the oxygen concentrator on a quarterly basis. After you have been using the oxygen concentrator for approximately three months, a BOC patient service advisor will ring you to advise that a service is due on the equipment. It is important that you are available for this visit as the homecare technician will take the first reading of the concentrator hours meter. The meter reading will be entered into the BOC computer system.

This will issue a refund paid by bank transfer Unless on a prepaid meter, BOC will reimburse the electricity used by your concentrator at a standard regional rate defined by the NHS. You may benefit from lower electricity rates in your area, advice can be obtained from uSwitch on [0800 6888 557](tel:08006888557).

The service visit

It is very important your concentrator is first serviced after three months and then every six months after so that we can ensure it is in full working order. During these visits we can also check that you have enough cannulae/ masks.

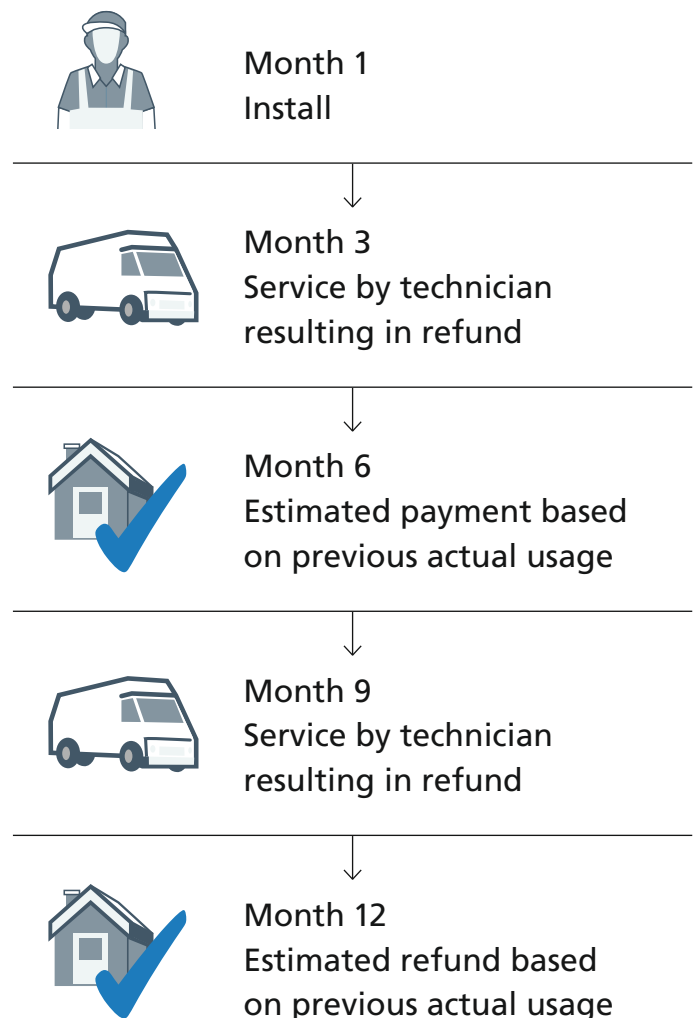
The ongoing process

Future concentrator service visits will be planned at six monthly intervals when a meter reading will be taken by our technician and a refund will be issued. In between

these visits we will arrange to send you an estimated refund. Therefore three months after the concentrator service visit you will receive a further refund which is based on an estimate calculated by our computer system.

How do we calculate the estimated refund?

The computer is able to estimate the hours the concentrator has been used based on the readings taken at installation and also at the first service. If your oxygen usage has changed and you have been over or underpaid then we will rectify this at the next refund.



Home Oxygen Portal

BOC now offers an online ordering system for your home oxygen cylinder prescription needs. This will enable you to place an order via our user-friendly portal, save you time and give you peace of mind. Registration is quick and easy and you can access the portal from your computer, smartphone, tablet or any internet enabled device.

Other features include:

- Replenish your liquid unit
- Arranging holiday oxygen
- Re-ordering cannulas/masks
- Add/update your bank details for electricity refunds
- Electricity reimbursement queries
- General queries

Register now at:
www.bochop.co.uk



If you are visually impaired and require
a large print copy, please contact us on

0800 136 603

Our normal working hours are Monday to Friday 8am until 6pm.
We are open 24 hours for emergencies only.

BOC Healthcare

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