

Oxygen concentrators. A user guide.



Service provided by:

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Important: Please ensure you read all accompanying literature supplied by your BOC Patient Service Representative (PSR) 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 will be tailored to each patient and kept as short as possible but no longer than 15m. 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 PSR 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 equivalent to about four light bulbs).

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

Make sure you let your power supplier know you have an oxygen concentrator that is dependent upon an electricity supply. This will ensure that they highlight you as high priority should a power cut occur.

If you have any questions please ask your PSR.

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

Sysmed M50.

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Everflo.

Important parts of your concentrator



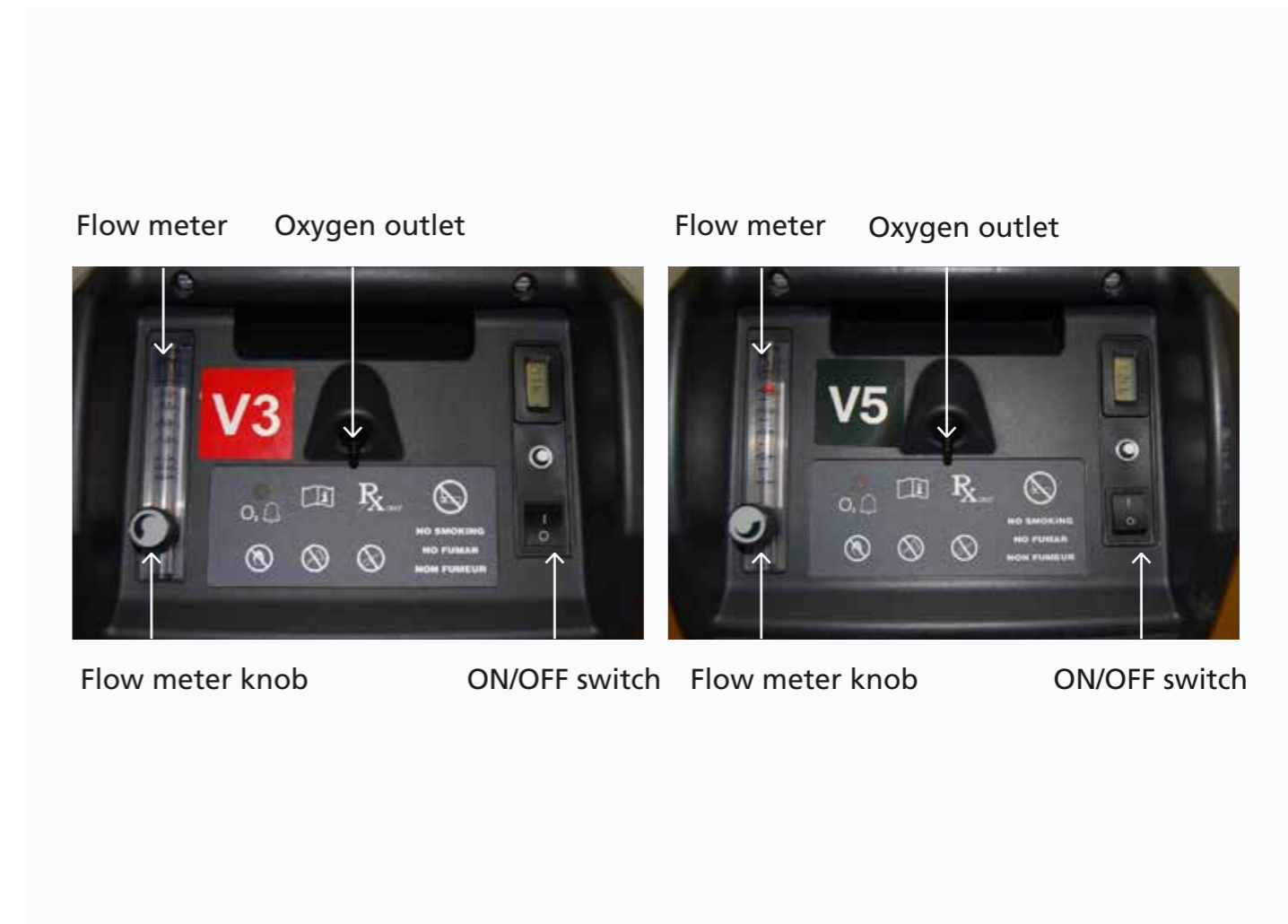
Using your concentrator

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 PSR
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.

VisionAire V3 and V5.

Important parts of your concentrator



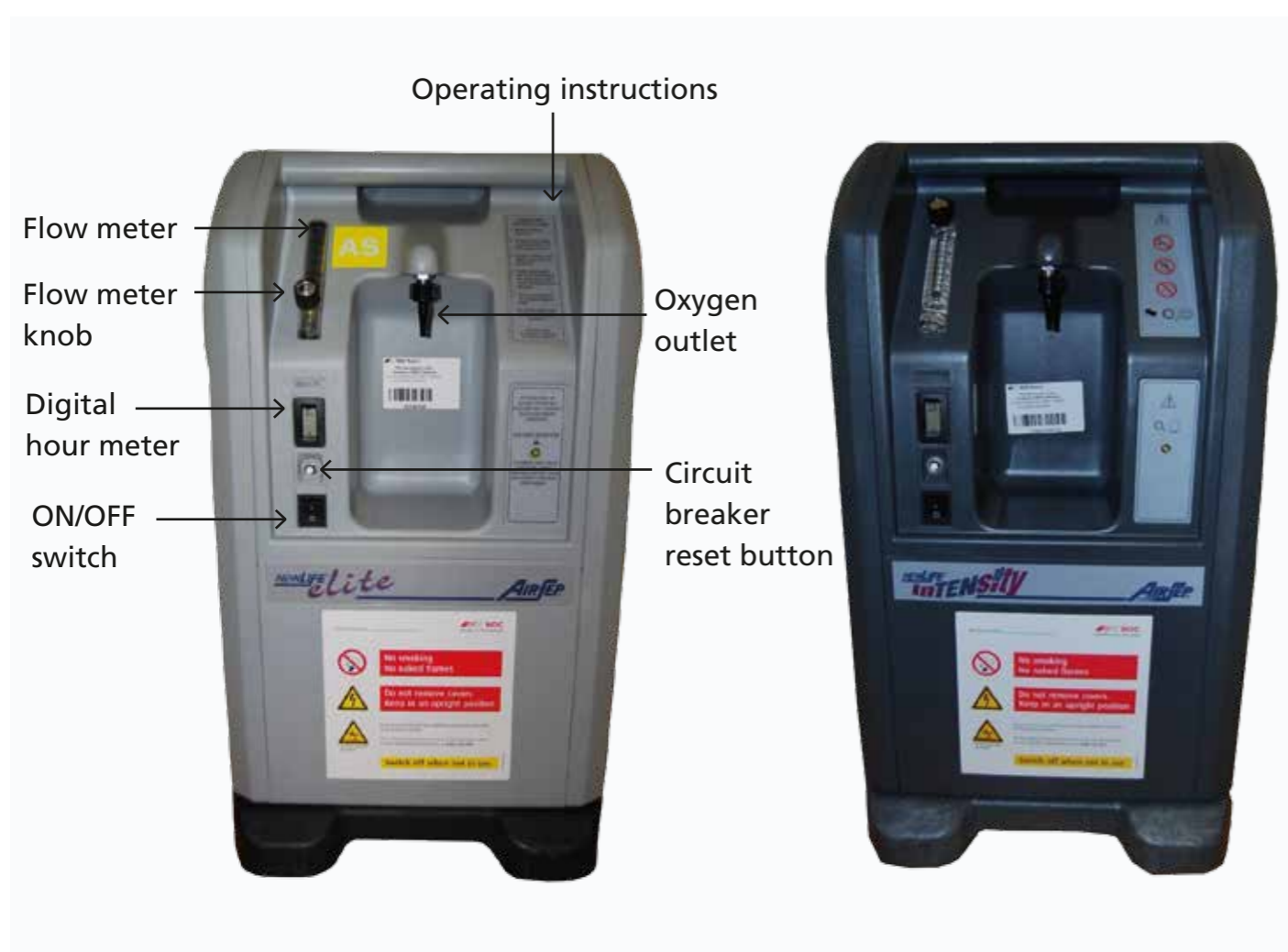
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Airsep newlife elite and Intensity.

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Using your concentrator

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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 PSR 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 PSR will visit every six months to carry out regular maintenance checks on the oxygen concentrator. The PSR 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 PSR 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 PSR 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 Customer Service Centre on [0800 136 603](tel:0800136603).

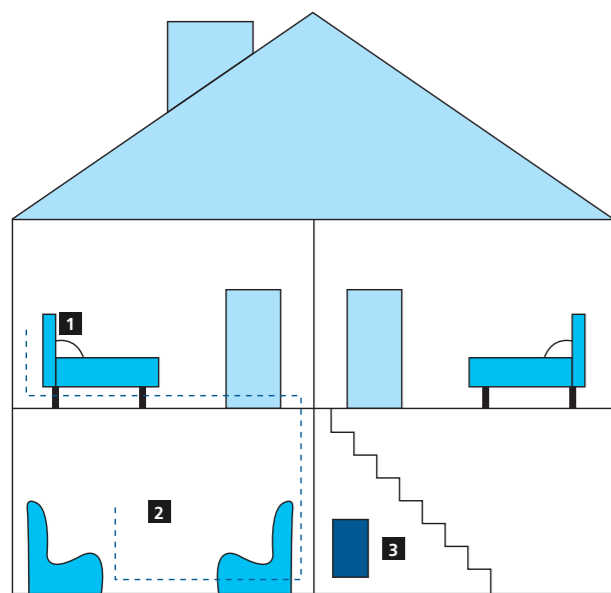
If you have any questions or concerns, please raise these with your PSR or call the helpline.

Fixed installation.

When your PSR 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 PSR 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 BOC Healthcare PSR will NOT be able to install fixed oxygen outlet in your bathroom or kitchen

Free line installation

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

The PSR 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 Patient Service Representative (PSR) 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 Patient Service Representative (PSR)
- 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 PSR will show you how to do this.

Nasal cannulae

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"> Power cord not properly inserted into wall outlet No power at wall outlet Circuit breaker has been activated (selected units) 	<ol style="list-style-type: none"> Check power cord connection at the wall outlet Check your home circuit breaker and reset if necessary. Use a different plug socket if occurs again 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"> Dirty or obstructed filter. Defective nasal cannula or mask. 	<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> <p>Remove nasal cannula or mask from tubing. If correct flow is restored, replace with new cannula or mask. Check tubing for kinks or obstruction</p>
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 PSR 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](tel:0800136603) and 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 PSRs to visit you. Our free phone line [0800 136 603](tel:0800136603) is open 24 hours a day every day of the year to respond to emergencies.

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

East of England:
UK Power Network tel [0800 316 3105](tel:08003163105).

North East of England:
Northern Power Grid tel [0800 668 877](tel:0800668877).

Northern Ireland:
Northern Ireland Electricity tel [03457 643 643](tel:03457643643)

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 Representative (PSR) 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 PSR 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 074 0745](tel:08000740745).

The service visit

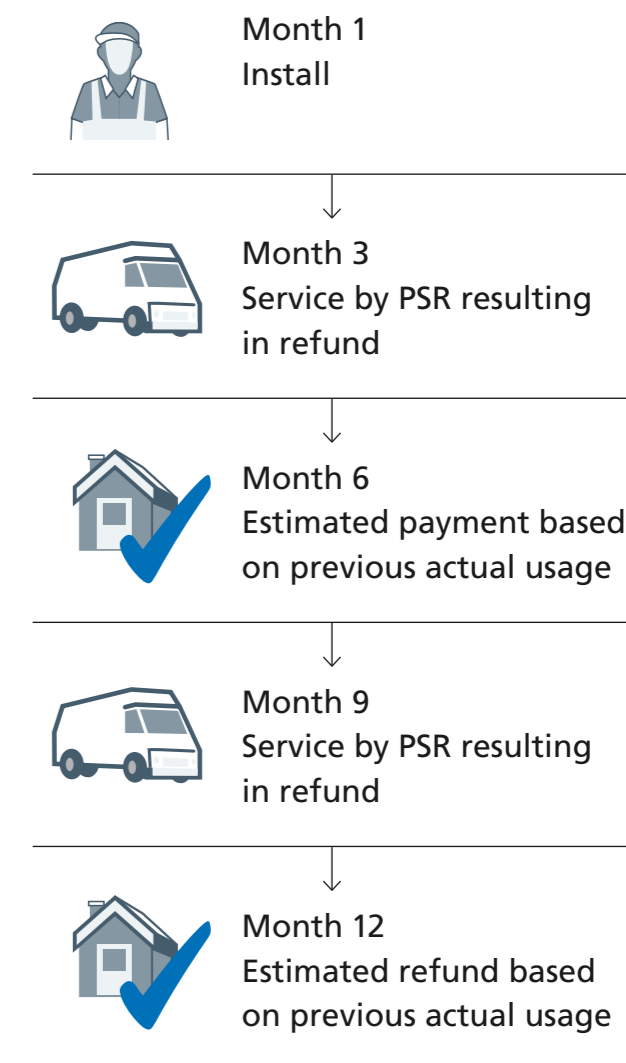
It is very important your concentrator is first serviced after three months and then every six months after so that we can ensure it is in full working order. During these visits we can also check that you have enough cannulae/masks.

The ongoing process

Future concentrator service visits will be planned at six monthly intervals when a meter reading will be taken by our PSR 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.



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

Contact us.

Our normal working hours are Monday to Friday 8am until 5.30pm.
We are open 24 hours for emergencies only.

BOC Healthcare

Patient Service Centre, Priestley Road, Worsley, Manchester M28 2UT, United Kingdom

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