

Using oxygen with Non Invasive Ventilation (NIV)

You have been assessed by the Sleep and Ventilation Team and found to need oxygen when you are using your Non Invasive Ventilation (NIV) device. This leaflet is for patients who do not require oxygen in the day time.

Why do I need oxygen?

Our bodies need oxygen in order to function properly. Some people with heart and lung diseases cannot get enough oxygen from the air.

When the amount of oxygen in our blood falls below a certain level it can be damaging to the heart and although NIV alone can help to improve and prevent this by giving you a deeper breath, sometimes medical oxygen also needs to be added in.

What is medical oxygen?

- This is oxygen delivered by a special machine called a concentrator
- It is an important part of your treatment and needs to be in use whenever you are wearing your NIV mask and ventilator

What are the benefits of oxygen?

- ✓ Increase life expectancy
- ✓ Improve quality of life
- ✓ Improve sleep quality
- ✓ Improve oxygen delivery to vital organs

Are there any side effects?

Since you need to use NIV we know you are at risk of having a high level of carbon dioxide in your body. Oxygen, if used incorrectly, can make this worse. Signs of increased carbon dioxide levels could include:

- Being drowsy in the day time or difficult to wake up
- Being more breathless than usual
- Waking up with a headache which eases as the morning goes on

To help to prevent these symptoms from developing please only use your oxygen according to the advice of the ventilation team.

Are there any alternatives?

There is no other system available that can deliver oxygen continually.

What is an oxygen concentrator?

An oxygen concentrator is a special machine that works from your home electricity supply. Room air is drawn into the unit and passed through a filter that removes impurities.



**Oxygen
Concentrator**

Who will fit the machine?

- An engineer from the oxygen supply company will contact you and fit the machine on a day arranged by your physiotherapist.
- The engineer will explain how to keep the concentrator filter clean (this cleaning will need to be done weekly) and will set the oxygen flow rate as prescribed. Once set, the flow rate should **not** be altered unless you are instructed to do so by the ventilation team.
- If it is needed, the engineer will provide up to 50ft of tubing to allow the oxygen to run from the concentrator if located in another room, and in to your NIV machine.
- The engineer will leave you with a back-up oxygen cylinder and a 24hour emergency number for use in the unlikely event of a power cut or if your oxygen concentrator breaks down.

Where should I put the oxygen concentrator?

The oxygen concentrator will be placed by the engineer in a safe area with access to an electrical socket. The concentrator can **NOT be placed** near a naked flame, such as open fires, and gas cookers.

What will happen after the machine is fitted?

The engineer from the oxygen supply company will contact you to arrange a visit to service the concentrator regularly and check the amount of oxygen used.

You will receive a refund to cover the cost of the electricity that the concentrator has used every 3 months once paperwork has been completed with Air Liquide who will ask for the details of your electricity supplier. This is in order to arrange an accurate refund.

If this information is not provided you will receive a standard payment.

Adding oxygen to the NIV device:

The oxygen concentrator will be attached to your NIV device via tubing which your physiotherapist will provide you with. Each NIV device has a different connector and these are shown below.

An oxygen connector as shown here is required to attached your oxygen to the **A30** model of NIV.



Patients using a **Lumis 150** with a humidifier and climateline air tubing will attach the green oxygen tube to the oxygen connection at the end of the tubing as shown here:



If you are using a **Trilogy device** the oxygen tubing is added to your NIV treatment through tubing attached between your concentrator at one end and through the white connector at the back of the Trilogy device as shown:



When should I use the oxygen?

- You should turn on the oxygen concentrator to provide oxygen whenever you are going to wear your NIV mask and machine
- You do not need to wear oxygen in the day time and will not be provided with the equipment to do so.

When do I turn the oxygen on?

Putting NIV on:

Turn on the ventilator, turn your oxygen concentrator on, fit your NIV mask.

Taking NIV off:

Take your mask off, turn your oxygen off, turn your NIV device off.

Note: Do not leave the oxygen concentrator turned on when the ventilator is not in use.

Safety:

Are there any risks associated with oxygen use?

Too high a flow of oxygen can be as dangerous as too little. It is important that you **do not** alter the flow rate on the machine.

Turn the concentrator on and off by the button on the front of the machine only.

Oxygen is a serious fire risk. **Do not** use near naked flame. **Do not smoke or allow anyone in the room to smoke.**

Electricity supply and safety

Both your NIV and concentrator machines run from mains supply electricity. If there is a risk of your electricity supply being disrupted due to a mains supply power cut, or if you are on an electricity meter and the electricity credit could run out, this could be a serious risk to your health.

The oxygen concentrator does not have a battery and will stop working if electricity supply is disrupted.

This could lead to your blood oxygen levels becoming dangerously low. If you could be at risk please be sure you have had a discussion with your physiotherapist about how to manage this.

It would be advisable to contact your electricity supplier to request to be on a priority supply. This means they are aware that you use a ventilator and oxygen concentrator, and in the event if a power cut they will restore power to your home as a priority.

Pressure Valves

If you are using the A30 NIV device you will need to include a pressure valve in your NIV circuit.



Pressure Valve

The pressure valve contains a blue disk which is a one way valve and it prevents oxygen from flowing in to the machine.

Please wash the valve with warm water and mild detergent once a week. Let it air dry and then test the spring by pressing and releasing the blue disk several times and watching it spring back in to place. If the disk does not spring back please replace the pressure valve.

A picture of the pressure valve as part of the NIV circuit will be provided to you by your physiotherapist.

Safety advice

- ✓ Only use creams and moisturisers on your face that **do not** contain petroleum and paraffin e.g. aqueous cream, discuss with your pharmacist if concerned. This also includes cosmetics.
- ✓ The Fire Service will be informed that you have oxygen in your house and they may visit you.

If you have any questions or concerns:

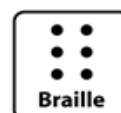
For information about your oxygen concentrator and equipment please contact:

Baywater Healthcare
Freephone 24/7 0800373580 / 0808143992

For any other queries relating to the information in this leaflet:

Sleep and Ventilation Service Physiotherapy Team

Call switchboard on 01515255980 and ask for Bleep 3334



If you require a special edition of this leaflet

This leaflet is available in large print, Braille, on audio tape or disk and in other languages on request. Please contact:

Tel No: 0151 529 2906

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