Oxygen from a Concentrator

Long Term Oxygen Therapy (LTOT)

A guide for the patient

Produced by the Home Oxygen Service, North East Essex
(Courtesy of North Bristol NHS Trust)
Introduction
Welcome to the Home Oxygen Service. This leaflet has been written for patients on home oxygen therapy delivered through a machine (an oxygen concentrator), and hopes to answer questions you may have about the treatment.

What is long term oxygen therapy (LTOT)?
Oxygen is an important gas in the air that we breathe. Oxygen therapy increases the amount of oxygen that flows into the lungs and the blood stream. It is given to people with lung disease and heart conditions who have low levels of oxygen in their blood. You should use the oxygen for a minimum of 15 hours a day. However, your consultant may suggest that you use it for up to 24 hours a day. The oxygen is administered via an oxygen concentrator installed in your house. It is important that patients on this type of oxygen are regularly reviewed by their health care professional.

What is an oxygen concentrator?
An oxygen concentrator is about the size of a medium suitcase (approximately 60 cm high x 40 cm wide x 40 cm deep). It runs off the mains electricity and you will be advised on the best position to place the concentrator by the installing contractor.

How will LTOT benefit me?
LTOT will benefit you by increasing the percentage of oxygen in your blood, thereby helping to reduce any strain on your heart and lungs. It may also, in some patients, reduce breathlessness.

References:
- Thorax 2004; 59 (suppl 1):1-232
doi:10.1136/thx.2004.022707

For further support and information
- BOC (British Oxygen Company)
  0800 – 136 603

- Home Oxygen Service
  Primary Care Centre
  Turner Road
  Colchester
  CO4 5JR
  Tel: 01206-286695

Your contact at the Home Oxygen Service:
How to use your oxygen concentrator

- Your oxygen flow rate should be set at \_ \_ litres per minute.
- You should use your oxygen for at least \_ \_ hours each day, including when you are asleep at night.
- You can increase the number of hours you use the oxygen concentrator, **BUT NOT THE FLOW RATE**.

**Unless advised to do so by the COPD Team, you MUST NOT increase the flow rate. This is unsafe and may slow down your breathing rate and make you dangerously sleepy.**

**Oxygen tubing and nasal prongs**
Oxygen from the concentrator is delivered through small prongs, which fit just inside your nostrils. There will be sufficient tubing attached to the prongs so that you can move about whilst having your oxygen therapy.

**How to care for your equipment**
- Check you nasal prongs daily to ensure that the tips are not blocked.
- If required, wipe the nasal prongs with a damp cloth.
- Change your nasal prongs every 4 weeks (or more often if necessary). Your nasal prongs should feel comfortable enough for you to forget they are there.

- You can get nasal prongs and tubing from BOC Vitalair, tel no. 0800 136 603.
- If you nose should get sore use a water-based lubricant such as “KY jelly”.
- Do **not** use petroleum based creams (i.e. “Vaseline”) or decongestants (i.e. “Vaporub”/”Vicks”) as this hardens the prongs and is a fire risk due to the grease component of the product. BOC can also provide small sponge tubes to ease any discomfort behind your ears, which may be caused by the nasal prongs.
- Each week dust your oxygen concentrator cabinet with a damp cloth, ensuring it is turned off at the On/Off switch and the power cord is disconnected.
- The **air filter** at the back of the oxygen concentrator **must be cleaned weekly**. Remove the air filter from the concentrator and replace it with a spare from the wallet. Wash the filter you have removed in warm soapy water, rinse thoroughly and allow to dry naturally. (See BOC Vitalair booklet for more details).

**How to use oxygen safely**
- **You must not smoke** whilst receiving oxygen therapy. Smoking reduces the benefits to the therapy and is a serious fire hazard.
- It is important that no one else smokes in the same room while you are using the concentrator.
- Do not use near a fire, a naked flame, or a paraffin/gas heater.
- Do not use flammable products, such as aerosol sprays, oil based lubricants, or paint thinners near your oxygen concentrator.
• Warn visitors about the hazards of tripping over the oxygen tubing and take care not to trip yourself.

The electrical supply
The cost of the electricity you use for your machine will be reimbursed. When the 3 monthly service is carried out the engineer will record the number of hours that the concentrator has been used. This enables Vitalair (the company who supply and look after the concentrators) to calculate the amount of electricity used and they will send you a cheque to cover the cost.

Useful Do’s and Don’ts
✓ Do inform your electricity supplier that you are using an oxygen concentrator so that you will be put on a priority list for reconnection of power.
✓ Do inform your home insurance company. This should not affect your premium, but if you have any problems contact the BOC Vitalair team, who will help you.
✓ Do have a smoke alarm in your home.
✓ Do not leave your concentrator running for long periods when it’s not in use.
✓ Do not leave your nasal prongs on the bed or chair with the oxygen running, as there may be a build up of gas that may be dangerous.

NB: for further safety tips please refer to the BOC Vitalair booklet, in the purple section, supplied with your concentrator.

It can improve:
✓ Sleep
✓ Memory
✓ Energy Levels
✓ Mood
✓ Alertness
✓ Appetite

Why 15 hours each day?
Several studies in Britain and the USA were carried out in the early 1980s in order to discover the benefits of oxygen therapy in chronic lung disease. They discovered that the minimum amount needed was 15 hours a day to gain the maximum benefit. Most of the hours can be achieved by using the oxygen overnight. The occasional weekend or evening without oxygen will not be harmful long term. Remember to be flexible.

Will I become dependent on LTOT?
No. Think of it as another medicine to make you feel better. You will not become ‘hooked’ or dependent on it and it will not lose its useful effects. Generally, once the decision has been made to start LTOT it will be a life long treatment.

How long before I notice any benefits?
Many patients notice some benefit within a few weeks of starting regular LTOT. However, it usually takes several months before you notice a general improvement in your condition.

How will I obtain the concentrator?
The COPD team will contact a contractor who will visit you at home to make arrangements to install the oxygen system.