



**Royal Berkshire**  
NHS Foundation Trust

# Long term oxygen therapy (LTOT)

Information for patients,  
relatives and carers

---

This leaflet aims to provide information to patients and their relatives/carers with regards to the use of long term oxygen therapy (LTOT) at home.

---

## What is oxygen?

We breathe in oxygen to nourish the body's cells and breathe out carbon dioxide, the body's waste product.

In some patients with chronic lung disease, the oxygen levels in the blood may gradually decrease over a long period of time. Because it happens slowly the body will adapt, but eventually the consistent low levels of oxygen puts a strain on other organs. In some patients, carbon dioxide levels may also be raised due to the lung's inability to remove it from the body effectively.

## What should I expect at the assessment appointment?

You have received this appointment so that we can complete an assessment of your oxygen requirements. Oxygen levels can be easily monitored using a 'pulse oximeter' - a small, painless probe that fits over the end of your finger. This must be done when you are reasonably well, i.e. not when you are getting over a chest infection and ideally eight weeks after finishing a course of steroids and/or antibiotics.

The oxygen assessment is carried out on two separate appointments. The first appointment consists of monitoring your body's oxygen levels by obtaining a blood sample from your wrist. A decision is then made about need for oxygen and if further appointments are required.

If a second appointment is needed the blood test is repeated and if the oxygen level remains low, oxygen is then administered for 40 minutes. The oxygen levels are checked again with a further blood test.

If the oxygen level in your blood is below a certain level on two occasions when you are well, we may recommend that oxygen be taken for a minimum of 16 hours a day/night (LTOT). This is a treatment and should be thought of in the same way as taking tablets

or using inhalers; it will not necessarily improve your level of breathlessness. Although 16 hours seems like a long time, it is not necessary to use the oxygen continuously; the total time can be used over the course of the day and night.

### How is the oxygen delivered at home following the appointment?

Oxygen at home is delivered via a machine called an oxygen concentrator. The machine is about the size of a bedside table and concentrates oxygen from the air in the room. It plugs into the mains electricity and uses around 350 watts of power (about the same as four 100w light bulbs). The cost of the electricity used is reimbursed to you by the oxygen provider.

Tubing from the concentrator is placed around the house temporarily. A more permanent installation can be installed at a later date. The oxygen is then administered to you by a face mask or nasal cannulae. A back-up oxygen cylinder will be supplied in case of emergency, such as a power cut. A portable cylinder may also be prescribed if after assessment you think you would benefit from using oxygen outside your home.

It is important that you do not alter the oxygen flow rate beyond what is prescribed for you as this can be dangerous. If you feel that your medical condition is worsening please seek help from your GP or the community respiratory team.

### What happens next?

The respiratory nurse will visit you at home 4 weeks after you have the oxygen concentrator installed. After that you will be referred to the community respiratory team for appropriate, continuing follow-up.

### Oxygen and smoking

**If you smoke then oxygen therapy may not be prescribed as this is a safety hazard. Other people must also refrain from smoking in the house, in the vicinity of the machine or any oxygen outlet.**

**Keep the concentrator away from sources of heat and ignition, and clear of any covers and curtains. Tubing and cylinders may present tripping hazards - please take care.**

**Electronic cigarettes should not be used while wearing the oxygen. Batteries of electronic cigarettes should not be charged in the vicinity of any source of oxygen.**

Your home oxygen supply:

**Device:** \_\_\_\_\_

**Flow rate:** \_\_\_\_\_ **Hours per day:** \_\_\_\_\_

If you develop headaches, new confusion or increased daytime sleepiness, contact the Oxygen Assessment Service on 0118 322 7159 Monday to Friday 8am to 4pm.

If we have not responded within 4 hours please contact your GP or out of hours GP.

Follow up planned: \_\_\_\_\_

Respiratory Nurse: \_\_\_\_\_

Your oxygen company is: **Dolby Vivisol**

They can be contacted on: **0800 917 9840** (24 hour line)

Please contact them if you have any problems or queries regarding your oxygen. Alternatively, you may contact the Home Oxygen Assessment Service on the number below or your GP.

Department of Respiratory Medicine, Level 2, South Block, RBHl

Telephone: 0118 322 7159 Mon-Fri 8.00am – 4.00pm

Clinical Admin Team (CAT 11) Telephone: 0118 322 6676 Mon-Fri 8.00am – 4.00pm

**This document can be made available in other languages and formats upon request.**

Department of Respiratory Medicine, July 2004

Reviewed: October 2017 Review due: October 2019