

Oxygen at home

Respiratory Medicine
Information for Patients

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What is long-term oxygen therapy?

Long-term oxygen therapy gives you extra oxygen when your lungs cannot provide enough for your body.

It can help prevent health problems caused by low oxygen levels over time.

What is ambulatory oxygen?

Ambulatory oxygen is oxygen you use when you are walking or being active outside your home, and sometimes inside your home. You carry it in a portable device. For some people, it can help them be more active. We will only supply it if tests show you need it.

Lung conditions

The most common causes of poor oxygen levels are long-term (chronic) lung problems such as chronic obstructive pulmonary disease (COPD) and pulmonary fibrosis. Other rare lung conditions can also cause this.

Can other health problems cause low oxygen levels?

Being very overweight can lower your oxygen levels. This is because it can make it much harder for your lungs to fill with air and move air in and out properly.

Neuromuscular illnesses are conditions that make your muscles weak. They can also damage the nerves that control your muscles.

As these illnesses get worse, the nerves and muscles used for breathing become weaker. This causes the oxygen level in your blood to fall.

These illnesses include motor neurone disease and myasthenia gravis. There are other neuromuscular illnesses too.

Some heart problems can also cause low oxygen levels. Some people with these problems may benefit from oxygen at home.

What is a normal oxygen level?

A normal oxygen level is between 94 to 98%. This can change to between 88 to 92% when you go home with oxygen. Speak with your doctor or medical team to find out the oxygen level you need.

How do you know I have low oxygen levels?

We check this by putting a small clip (probe) on your finger to measure the oxygen in your blood stream.

It is a simple test. It can be done in your GP's surgery. It can be done as part of regular health or illness (such as COPD) checks.

What do we check before deciding if oxygen treatment is safe for you?

Before starting oxygen treatment, your doctor or healthcare team will look closely at:

Smoking and e-cigarettes: if you smoke or use e-cigarettes, we will advise you to stop or cut down a lot.

Smoking does not always mean you cannot have oxygen therapy. But the team will carefully check if it is safe for you to have oxygen at home.

If you need help to stop smoking, we will give you information and support.

If you keep smoking while using oxygen treatment, it can cause:

A fire and explosion risk. Patients have died in the past because of fire. If you live in a terraced or semi-detached home, your next-door neighbours are also at risk.

Some patients have had severe burns to their face after smoking while using oxygen treatment.

Smoking can also make oxygen therapy and your other treatments work less well. It can make your airways swollen and narrower. This makes it harder for oxygen and medicines to reach your lungs and work properly.

How do we decide if you need oxygen treatment?

If your doctor or healthcare team think you may need oxygen at home, they will refer you to the oxygen team. You will have 2 separate assessment appointments. The first appointment is often 8 to 12 weeks after discharge from hospital. The second appointment is often 4 weeks after the first. The following will be performed on both appointments:

At your oxygen team assessment, the team will see you in the outpatient clinic. They will:

- **check the oxygen level in your blood.** They will take a small blood test from your earlobe. This is usually not painful. The test shows the exact levels of oxygen and carbon dioxide in your blood.

- **decide the right oxygen dose.** If your oxygen level is below a set level, they may start oxygen treatment and adjust the dose for you.
- **check for side effect.** Most people cope with home oxygen therapy very well with no or only mild side effects. These may include:
 - **dry mouth or nose.** You can use KY jelly or Aqua gel to moisten your nose. You must not use any products that are petroleum-based, as they are flammable.
 - **nosebleeds.** These are usually mild. If you have a lot let the oxygen team know.
 - **trips and falls.** If you have a concentrator, the tubing will be installed in places where it is difficult to trip. Some tubing will still be possible to fall over. If you are using cylinders, be mindful of the tubing and equipment, as these can create a trip hazard.
 - **embarrassment or self-consciousness.** This is not a side effect, but it is normal to feel this way when you first start leaving the house wearing your oxygen. This treatment is now quite common, and most people are used to seeing people wearing oxygen.
- **take another small blood sample** from your earlobe to check your oxygen is at the right level and your carbon dioxide has not increased.
- If you are being assessed for ambulatory oxygen, the team may check your oxygen level after a short walk. They will then find the right oxygen level for you to use during exercise.

When the team is happy your oxygen treatment is set up safely and you know how to use it. They will ask the oxygen company to visit your home and provide the equipment.

How will I use oxygen at home?

You will usually breathe in oxygen through small tubes that sit just inside your nostrils. These are called nasal prongs or a cannula.

If you need a lot of extra oxygen, you may use an oxygen mask instead. Oxygen can be given in different ways:

- **Portable cylinders:** These can be carried in a backpack or pulled on a trolley. They are used outside the home by people using ambulatory oxygen, or by people using long-term oxygen therapy who want to go out.
- **Oxygen concentrator:** This is for people who need oxygen for 16 hours a day. It is a machine about the size of a small fridge. It takes oxygen from the air and gives it to you through tubing. There is still plenty of oxygen left in the room, so it is safe for other people to be with you.
- **Liquid oxygen:** This may be suitable if you:
 - use your cylinder or portable oxygen a lot.
 - need a high flow of oxygen, are still working, or find your cylinders do not last long enough.

Liquid oxygen is the same oxygen you breathe, but it is stored as a liquid.

- **Portable oxygen concentrator:** This may be an option instead of portable cylinders, but it is not suitable for everyone. The oxygen team will need to assess you again because this equipment works differently.

Will anyone else need to visit my house when I get oxygen treatment?

The company installing your oxygen equipment will do a fire risk assessment. They may also ask the fire service to visit and carry out a fire safety check. Sometimes, a member of the oxygen team may also visit your home.

Safety first

Oxygen is safe if used correctly, but it can increase the risk of fire. Here are important tips:

- **Never** smoke or use e-cigarettes near oxygen equipment. Oxygen can make fires burn much more quickly. In Leicester we only consider a certain type of oxygen for people who smoke (including e-cigarettes) after their situation has been carefully reviewed by the healthcare team. If you are prescribed oxygen, you must **never** smoke or use e-cigarettes near the oxygen equipment.
- If you have oxygen at home, no-one must smoke (including e-cigarettes) anywhere inside the home. Patients will need to go outside to smoke and not use oxygen for 30 minutes before and after smoking.
- Avoid open flames like matches, lighters, or candles during oxygen use and for at least 30 minutes before and after using oxygen.
- Do not cook while using oxygen or within 30 minutes before or after using oxygen.
- Avoid using paraffin or oil-based creams on your skin if you are using oxygen. These can be flammable. Instead, ask your healthcare professional or carer about water-based alternatives. Water-based creams are safer but not completely risk free. There is still a risk with non-paraffin-based creams, but following this advice can help reduce the risk.

How long will I need to use these treatments for during the day?

If your oxygen levels are low when you are sitting or resting, you may need to use the treatment for at least 16 hours per day. This can include when you are sleeping. Some people use their oxygen for most of the day and night. Your oxygen team will tell you how long you should use it for.

Ambulatory oxygen: normally you will use this during any exercise such as leaving the house, shopping, and gardening. Your oxygen team will tell you when is best to use it.

Will I feel better after this treatment?

It is difficult to know how each person will feel when they start using oxygen home.

Oxygen treats low oxygen levels in your blood. It may not make you feel different or less breathless. Breathlessness can have many causes, such as your health condition, being less active, muscle weakness, extra weight or feeling anxious. Oxygen only treats low oxygen levels. It does not treat these other causes of breathlessness.

We hope that you will feel the following benefits:

- **Fatigue:** You may feel less tired during activities. You may also recover more quickly after effort.
- **Easier exercise:** You may notice that you are able to do more such as walking further or more housework. You may still be doing the same activities as before, but they may need less effort and feel easier to do.
- **Better concentration:** You may be more clear-headed or able to concentrate for longer.
- **Improved sleep:** You may notice that your sleep is more refreshing. You may have headaches less often when you wake in the morning.
- **Less leg swelling:** If your legs often swell, they may improve or return to normal.

The benefits come slowly. It might take many weeks or months for you to notice.

You may not notice any difference in how you feel but it is important to keep using the oxygen. If you are not sure, please speak to your oxygen team.

Can too much oxygen be harmful?

Yes. Some patients are very sensitive to extra oxygen. In a small number of people, too much oxygen can make carbon dioxide build up in the blood. This can be very serious and can be life-threatening.

Because of this, do not turn up your oxygen setting unless your oxygen team or another health professional tells you to.

Contact details

Oxygen nurses: **0116 250 2880** available 9am to 5pm, Monday to Friday

BOC patient line: **0800 136603**

Out of hours: Call **111** or **999**

Health information and support is available at www.nhs.uk or call 111 for non-emergency medical advice
Visit www.uhleicester.nhs.uk for maps and information about visiting Leicester's Hospitals.
To give feedback about this information sheet, contact uhl-tr.informationforpatientsmailbox@nhs.net

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