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## Information for Patients

# Oxygen Therapy at Home

## Respiratory Directorate

### What is Oxygen?

The air that we breathe is a mix of gases of different percentages, the percentage of oxygen gas in the air is about 21%.

### Why is oxygen important?

Oxygen is vital to our bodies, without oxygen our bodies would not work. Our lungs are designed to absorb oxygen from the air so that our bodies can use it. Some, but not all, patients with lung disease can have low levels of oxygen in their bodies and some need to use extra (supplemental) oxygen to bring their oxygen levels up to a healthier level. The extra oxygen means that their bodies do not have to work so hard and this can mean that people will live longer, and feel healthier.

### Why do some patients need oxygen therapy?

Because our lungs are the only way that our bodies can absorb oxygen if they become badly damaged they may not be able to supply our bodies with enough oxygen for it to work well. If our bodies do not receive enough oxygen then it has to work a lot harder, and over time this may mean that the body 'wears out' a lot quicker than it would if it had the right amount of oxygen to use.

Giving supplemental oxygen means that whilst it is being given the body does not have to work as hard, and this means that people on supplemental oxygen can live longer, feel healthier, be more active, and feel less tired.

### I know people who have been told that their oxygen levels are low, but not low enough to need oxygen at home – why is that?

We know from studies looking at how best to use oxygen in the home that oxygen will only be of benefit if certain conditions are met.

- 1) Giving supplemental oxygen will only be of benefit if the levels of oxygen in your blood are consistently lower than a certain amount.
- 2) Supplemental oxygen must be used for at least 15 hours per 24 hours, any less than this and benefits are not seen
- 3) People must not smoke whilst on oxygen as oxygen can act like an accelerant and any flames will burn much stronger and quicker when there is more oxygen about. This can increase the risk of fires, and there have been cases of people being badly burnt whilst smoking and using oxygen at the same time.

## **How do I know if I need oxygen?**

We are able to assess whether you need oxygen at home, we do this by:

Checking the levels of oxygen in your body, firstly by measuring the oxygen saturations in your blood – this is done using a small probe that fits over one of your fingers. If the level is less than 92% then we go on to check the actual levels of oxygen in your blood to get an accurate level, if it is below a certain level we then check again about three weeks later. If it still low we know that supplemental oxygen is likely to be helpful to you.

## **Why can't you just give me oxygen without all this testing?**

Oxygen is a drug, it does have side effects – some people are very sensitive to oxygen and too much oxygen can lead to coma, and indeed death – so we have to be very sure that giving you oxygen will be safe for you, and that you will be likely to benefit from it.

## **Will supplemental oxygen stop me being breathless?**

Breathlessness has a number of different causes, for example damage to the lungs can cause breathlessness – and this does happen even when oxygen levels are ok. If you are less fit, or have put on weight this can also make you breathless. If you are in pain that can make you breathless. Low oxygen levels can also make you breathless but everyone is different some people with low oxygen levels don't feel very breathless; some people with normal oxygen levels are very breathless. Supplemental oxygen may help if your oxygen levels are low, but not always, and often other treatments are much more effective than oxygen for helping to make breathlessness more bearable.

## **How much Oxygen do I need?**

When we assess you, we can tell you how much oxygen you need to be on. It is important that the level of oxygen is not changed without assessment as too much oxygen can be dangerous, and some people can be so sensitive to oxygen that too much can make them drowsy, and at worst this can lead to coma and death.

## **Do I need oxygen when I sleep?**

Yes, when we are sleeping our breathing changes and we breathe less, and the breaths we take are less deep as our bodies try to rest and save energy. So our lungs become less able to absorb as much oxygen from the air which means that our oxygen levels drop during the night and this happens to everyone, but if you have lung damage then this can mean your body has to work harder – when it should be resting.

## **How many hours a day do I need to use oxygen for?**

To gain the most benefit from supplemental oxygen you need to be on it for at least 15 hours a day, and the longer the better. This does sound like a lot but if you put it on in the evening and then wear it overnight for most people that will be at least 15 hours.

### **Will I always need to use oxygen?**

Most people do, but sometimes peoples' lungs improve to the point that oxygen is no longer needed. Sometimes people need higher doses of oxygen over time, so it is important that we regularly check that what you are on is still correct.

### **Will I need to use oxygen when I am physically active?**

Not always, everyone is different, some people find they can do more when they are using oxygen, but not everyone finds this. Some people find that they would rather not carry cylinders around to use when they are out and about.

### **Do I need to have oxygen when I go out?**

You may find it helpful, people who are working, or are out and about for long periods of time may find that they are able to do more with portable oxygen than without. Other people do not find it helpful. We generally check with you what works best for you.

### **How is the treatment delivered to my home?**

A company called Baywater Healthcare will deliver the oxygen supply to your home. Oxygen can be delivered in different ways, you could have:-

### **Oxygen Concentrator**



This is a machine that plugs into your electricity supply. It extracts oxygen from room air and delivers it directly to you by either nasal cannula (tube that fits into your nostril) or a mask. The supplier of your oxygen service will reimburse money towards your electricity bill to pay for the supply that the concentrator uses.

### **Portable Oxygen**

These are small cylinders which weigh about 2-3 kg (6-7 lb) and come with a carry case. You will need to be assessed by your Home Oxygen Service (HOS) to determine if this is suitable for you.

## **If I am provided with oxygen how am I monitored?**

You will be reviewed for your continued oxygen requirements by the Home Oxygen Service (HOS), this is provided by the Respiratory nurse Specialist's based at:-

- St Woolos
- Ysbyty Ystrad Fawr
- Panteg Hospital
- Chepstow Community Hospital
- Nevill Hall Hospital
- Monnow Vale
- Ysbyty Aneurin Bevan

The assessment would ensure that your oxygen requirements are being met by your supplementary oxygen supply and allow for you to be monitored and reviewed at appropriate intervals, as per your requirements.

**“This document is available in Welsh /  
Mae'r ddogfen hon ar gael yn Gymraeg”.**