

## Oxygen Therapy

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### What is oxygen?

Oxygen is a colourless, tasteless, odorless gas that you need to live. Oxygen is found in the air you breathe at a concentration of 21%. You need oxygen in all of the cells in your body to change the food you eat into heat and energy.

### What happens when you have low blood oxygen?

Low oxygen in your blood is called hypoxemia. This happens when your lungs cannot take enough oxygen in from the normal air to keep all of your body cells alive. When this happens you need extra oxygen.

When you have low oxygen you may:

- feel tired
- have problems sleeping
- have problems doing normal daily activities such as eating, dressing and walking
- have poor concentration, mild confusion or forget things
- have morning headaches
- feel irritable
- feel more short of breath
- have an abnormal heart beat
- have swollen ankles

Damage to the lungs from low oxygen happens over time.

You may not feel these changes for a long time.

Low oxygen puts a strain on your heart so it cannot pump blood very well. This can cause swelling of the ankles.

### What is oxygen therapy?

Oxygen therapy means that you need extra oxygen to supply your body's needs. Your doctor will do some tests and prescribe oxygen therapy when you need this treatment.

## What tests are done?

There are 2 tests that measure the amount of oxygen in your blood:

- Oximetry
- Arterial blood gas analysis

### Oximetry

This is an easy way to see how much oxygen is in your blood.

A padded sensor is placed on your finger or earlobe.

A special machine called an oximeter detects the blood cells that are carrying oxygen. The amount of oxygen found is given in a percentage.

### Arterial blood gas analysis

This test gives more information than oximetry. A blood sample is taken from an artery in your wrist. The sample is analyzed to measure the amounts of oxygen and carbon dioxide in your blood.

## How does oxygen therapy work?

Oxygen therapy is given as a gas.

You breathe in the oxygen through:

- a mask which covers your mouth and your nose
- a nasal cannula that fits into your nostrils **or**

Breathing in extra oxygen raises your oxygen levels. This helps prevent or reverse the problems caused by low oxygen.

**Your body is not able to store oxygen. The extra supply of oxygen only works while you are breathing it in. When you take off the nasal cannula or mask, your oxygen levels may drop in a few minutes.**

## How will I feel with oxygen therapy?

Oxygen therapy improves your quality of life so you can do the things you want to do. When you use oxygen therapy the right way, you will feel:

- more alert
- sleep better
- less irritable
- less shortness of breath and tired

## More about oxygen therapy . . .

Oxygen therapy is a treatment for lung disease. It is not a cure. Oxygen therapy will not reverse lung damage. Oxygen only helps people who suffer from very low blood-oxygen levels.



Oxygen will not stop shortness of breath completely. You can learn good breathing and relaxation techniques to help shortness of breath. Shortness of breath may still be present or worse with exercise or sleep

**Oxygen is a medication.** ✘ Do not change your prescription without speaking to your doctor first.

## Safety first . . .

Oxygen should never be used around a flame or anything burning. Oxygen causes a flame to burn more strongly. This is very dangerous. Be careful when you use oxygen.

## Home Oxygen Therapy

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Oxygen is an important part of regular therapy for some people. For others, oxygen therapy may be a short-term treatment. Generally, oxygen therapy helps people with:

- very low oxygen levels at rest, with exercise and sometimes during sleep
- for a short term due to an infection such as pneumonia
- lung disease

### There are 3 main ways to get oxygen:

- Concentrators
- Cylinders
- Liquid oxygen

### Concentrators:

- stationary units powered by electricity that produce oxygen from filtered room air.
- cost-efficient as there is little maintenance and no refilling.
- easy to use
- often used in the home when you do not need to move the unit around

## Cylinders:

- oxygen in the gaseous form compressed under high pressure in an aluminum or steel tank
- many sizes - smaller sizes may be used for moving around or to back-up another system
- Individuals using cylinders do require some knowledge and skill to be able to operate the cylinder gauge

## Liquid oxygen:

- oxygen stored in its liquid form in an insulated container
- allows for storage of large amounts of oxygen in a small container
- comes in small units so you can move around
- may be more expensive

## Can I travel when I am using oxygen?

You can travel. **You need to plan ahead to make sure you:**

- have enough oxygen while travelling there and back
- have enough oxygen when you get there

Air travel needs more planning and coordination with the airline.

Talk to your doctor and your oxygen supplier for advice about travelling.

## When you travel:

- make sure you have health insurance for the time you are away
- take a written medical history, list of all prescription medications and your doctor's name and telephone number
- you should also wear or carry medical alert identification

