

Oxygen Therapy

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%. Every cell in your body needs a supply of oxygen.

What happens when you have low blood oxygen?

Your body is not receiving enough oxygen when your lungs cannot bring in enough oxygen from the air you breathe. Low oxygen in your blood is called hypoxemia.

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
- low mood

Damage to the lungs happens over time and lowering of oxygen in your blood can be slow over time too. These changes may not be felt for a long time. Whether or not you “feel” the signs of low oxygen, your muscles and heart have to work under strain.

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?

When you are not getting enough oxygen from the air you breathe you will need extra oxygen to supply your body's needs. Your Doctor or Respiratory Therapist 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. 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 accurate information than oximetry. A blood sample is taken from an artery in your wrist. The sample is analyzed to measure the amount 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 or
- a nasal cannula that fits into your nostrils

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 will drop in a few minutes.

How will I feel with oxygen therapy?

Oxygen therapy allows you to do the things you want to do. It improves your quality of life. 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 low oxygen in your blood. 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

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
- for a long term with lung disease

There are 3 main ways to get oxygen:

- Concentrators
- Cylinders
- Liquid oxygen

Concentrators:

- An electrical unit that “makes” oxygen by “concentrating” it from room air. As long as it is working properly, the supply does not run out.
- If there is a power failure, the person will use a cylinder.
- Used in the home. Some people can tolerate a portable, battery operated unit for travel.

Cylinders:

- Oxygen stored in gas form and compressed under high pressure in an aluminum tank
- Many sizes - smaller sizes may be used when outside of your home. The size chosen depends on the length of time it is needed for activities.
- An Oxygen Conserving Device (OCD) can be attached to the cylinder to conserve the supply by giving you oxygen only when you breathe in. It is not suitable for everyone – your Respiratory Therapist will assess if it is right for you.

Liquid oxygen:

- The Liberator base unit stores oxygen in its liquid form. Liquid oxygen is very cold so the base is an insulated container.
- The liquid oxygen converts to a gas which is what the person breaths in.
- You will be supplied with a small unit(s) called Strollers so you can re-fill them when needed.
- Your Respiratory Therapist will assess if this is the right system for you.

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

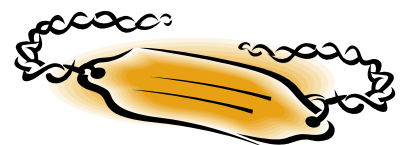
Oxygen needs when travelling by air may be different. The altitude of your destination may be different. Your prescription may need to be changed.

Air travel needs more planning and coordination with the airline. Your oxygen vendor may need time to order special equipment.

Talk to your doctor **before** you book your travel. Your Respiratory Therapist at your vendor can give advice about travelling.

When you travel:

- practice using the travel oxygen equipment before you leave and be sure to ask what to do if equipment fails
- 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



Helpful Hints for Using Oxygen

✓ Things to do	✗ Things not to do
✓ Use your oxygen as prescribed by your doctor.	✗ Do not adjust the oxygen dose without a prescription from your doctor.
✓ If you are on 'continuous oxygen therapy' aim to use your oxygen for at least 15 hours at the same time.	✗ Do not use oil, grease, aerosol sprays, hairsprays, vapor rubs, petroleum-based jelly or any other flammable materials near oxygen.
✓ Keep your equipment clean.	✗ Do not allow smoking of any kind in the area where oxygen is being used or stored.
✓ Change your equipment when needed.	✗ Do not allow electrical equipment within 5 feet or 1.5 metres of the oxygen system.
✓ Contact your oxygen provider if you have any concerns about your equipment.	✗ Do not allow heat sources or open flames such as candles to come within 5 feet or 1.5 metres of the oxygen.
✓ Store your oxygen equipment safely and securely. Always make sure the unit cannot fall or tip over.	✗ Do not store the oxygen near sources of heat such as radiators, fireplaces, ovens and base heaters.
✓ Place a 'No smoking – Oxygen in Use' near the oxygen for everyone to see.	✗ Do not try to repair any oxygen equipment yourself.
✓ Only use water-based lubricants if your nose becomes dry. Ex. Secaris	
✓ Allow only trained people to help you with the oxygen equipment.	

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