SA Health

Home Oxygen Therapy

Patient Information



SA Health



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INTRODUCTION

About this booklet

This booklet has been designed as a resource for patients, who have been assessed by a respiratory or sleep specialist who has determined that their medical condition will benefit from the supply of State funded or Department of Veterans' Affairs (DVA) funded oxygen therapy.

Oxygen therapy is often used in hospital; however it can also be used safely at home.

This publication can be downloaded at sahealth.sa.gov.au

What is oxygen therapy?

Oxygen is a gas in the air that we breathe and is necessary for human life.

Oxygen therapy is a treatment that delivers extra oxygen to assist breathing. By increasing the amount of oxygen the lungs receive, more oxygen is absorbed into the blood and distributed to vital organs.

HOW OXYGEN CAN HELP

Why oxygen is prescribed and how it works

Some medical conditions can lead to a decrease of oxygen levels in the blood. These conditions can include heart and lung problems and sometimes sleep related conditions, particularly in children.

Some babies born prematurely may need home oxygen for a few months because their lungs are underdeveloped.

Oxygen therapy is needed when all other treatment for a condition has been given and yet, the amount of oxygen in the blood still remains below a certain level.

Oxygen therapy is prescribed to raise the oxygen levels in the blood to normal levels. Oxygen therapy will reduce stress on the heart and lungs and potentially improve quality of life by restoring oxygen levels to normal. Maintaining normal levels of oxygen in the blood of babies is important for their growth and development.





Improvements in overall wellbeing

Most people notice some improvement when they start on oxygen therapy at home. You may notice that you:

- > feel more refreshed upon waking
- > get less breathless with activities like showering and walking
- > are able to think more clearly
- > have more energy.

Not everyone notices these improvements, but remember that the oxygen is helping your vital organs. It is important to understand that the use of oxygen may relieve shortness of breath, but in some cases it does not.

YOUR OXYGEN PRESCRIPTION

How much oxygen do I need?

The required flow rate of oxygen is determined after tests are performed that measure the oxygen levels in your blood while resting, exercising and sleeping (this is the best way to monitor infants and young children, including premature babies).

Oxygen therapy is a medication and should only be used as prescribed to give you the greatest benefit. Your prescription will detail:

 The amount of oxygen in litres you need per minute. This is referred to as litres per minute (LPM).



Do not alter the flow rate unless directed by a respiratory physician or respiratory nurse/community nurse.

Some people need oxygen therapy only while exerting themselves physically, others while sleeping and others require oxygen continuously.

Oxygen prescription definitions

Your prescription for oxygen therapy will be determined by your individual needs and will state when you should use your oxygen and may be one of the following:





Continuous - Oxygen therapy is to be used between 16 and 24 hours per day during exertion and with sleep. While at rest, you may wish to remove the oxygen. The best time to be off oxygen is when you are resting, for example, while you are watching television. However it is important that you use your oxygen for the minimum number of hours ordered by your respiratory physician. In premature babies oxygen is mostly prescribed for 24 hours a day.

Exercise/exertion - It is advisable that you use oxygen when you are doing anything that causes you to become short of breath, for example walking, showering, shopping or attending appointments.



Palliative - Oxygen therapy aims to provide you with comfort and relief from shortness of breath.





Sleep - Oxygen therapy is for people whose blood oxygen levels drop low during sleep, but remain within normal limits during the day. Oxygen should be applied when you go to bed and be removed when you wake up. A machine called a CPAP or BiPAP may also need to be worn with oxygen. A special port will be provided to connect the oxygen to your machine. It is important that the oxygen is turned on after the airflow has commenced and turned off to prevent a fire hazard.



Emergency - Use for life threatening asthma, together with your asthma action plan from your respiratory physician. Seek medical treatment as advised.

Your Prescription

Flow Rate:

- Litres per minute at rest ______
- Litres per minute during activity ______
- Litres per minute sleeping _____

Duration:

- Oxygen to be worn _____hours per day
- Continuous positive airway pressure (CPAP) level_____ positive airway pressure (BiPAP)

Emergency Use:

• ______ litres per minute via nebuliser in an emergency



Carbon dioxide retention

Do you retain carbon dioxide?





Your respiratory physician or respiratory nurse will tell you if your carbon dioxide levels are high and will monitor this by taking blood from an artery. In children this can be measured by a finger prick blood test.

If you retain carbon dioxide it is very important that you do not increase your oxygen flow rate unless advised by your respiratory physician or respiratory nurse/community nurse. Increasing your oxygen flow rate will cause the carbon dioxide in your blood to increase. This can be very dangerous as it can reduce how well you breathe. Symptoms of too much carbon dioxide include drowsiness, headache or changes in behaviour. If you experience or observe any of these symptoms contact your respiratory physician, respiratory nurse, or General Practitioner. In an emergency, always call Triple Zero (000).

Oxygen is not addictive

Oxygen is not addictive and it will not weaken your lungs. Maximum benefit will be achieved by using oxygen for the amount of time prescribed to you.

Your annual review

You may be reviewed by your respiratory physician one month after you start oxygen therapy. Some conditions improve after a few weeks and you may no longer require oxygen. As part of the continuing supply of funded oxygen from the health service you must be reviewed annually. This may require you to see your General Practitioner (GP) and request a referral to the Respiratory Unit for annual review

Your respiratory nurse or community nurse will contact you a week after commencement of home oxygen and will provide ongoing support.

HOME OXYGEN EQUIPMENT OPTIONS

Your home oxygen equipment will be supplied to you free of charge by your relevant Local Health Network. Any extra supplies may be at your own cost unless you are an entitled veteran.

It is important to keep a record of who your contact person is at your Local Health Network.

You will need to contact your home and car insurance provider to have your loan equipment placed on your policy. If the insurance company is not aware of the oxygen, they may deny a fire related claim.

Your home oxygen services/suppliers are:

> /	Air Liquide	1300 360 2	202
> [BOC Gases	1800 050 9	999
	Respirico Toll-free		
/	Wymedical Pty Ltd After hours Toll-free	08 8338 60	011

The home oxygen service/supplier will visit you at home to install your equipment. They will discuss with you, your family or carer how to use it safely.

Oxygen concentrator machine

An oxygen concentrator machine is a floor standing, electrically driven device that draws in air through a fine filter. It removes nitrogen and allows only oxygen to pass through the outlet. It comes with a long tube (maximum length of 12.2 metres) and is used for all your oxygen needs inside the home.

An Oxygen Concentrator machine requires continuous power supply. The filter on the unit requires regular cleaning. This will be demonstrated to you by your oxygen supplier. In the event of a power failure, a high pitched alarm will sound alerting you to use your oxygen cylinder which you have been provided.

Oxygen cylinder

Portable cylinders are used when you leave your home.

Portable cylinders allow children to go to school/ kindy or childcare with oxygen when needed. They can also be used if there is a power failure. SA Health allows for one delivery of up to four cylinders each month to maintain your mobility outside the home.

Extra cylinders or deliveries will be at your own expense, unless you are an entitled veteran or a paediatric patient. If your supply of oxygen cylinders does not last a full month contact your respiratory nurse/community nurse.





Oxygen nasal prongs

Oxygen is delivered into the nose through soft plastic prongs. These are attached to tubing which fits onto the outlet of the oxygen concentrator machine, or regulator/oxygen conserving device for the cylinder.





Oxygen cylinder carry bags and trollies

Oxygen cylinders can be transported in a trolley, frame or backpack depending on your mobility needs.

If you use a wheelchair, pram, mobility scooter or walking frame, make sure the oxygen cylinder is held securely in the carrier bag or basket.

Regulators and conserving device

A regulator is a device that sits on top of the portable oxygen cylinder and provides a continuous flow rate of oxygen. Only one of these devices for each size cylinder is supplied. You will need to ensure that the regulator is removed from the empty cylinder and attached to a full cylinder. Your home oxygen service/supplier will provide instructions on how to do this.

A conserving device will extend the lifespan of your cylinder as it only releases oxygen when you breathe in through your nose only. The conserving device will turn off when you breathe out. If you wish to try this device please contact your respiratory nurse.

Conserving devices are unsuitable for small children.



Portable oxygen concentrators

Portable oxygen concentrators are not State funded, however you may hire or purchase this device at your own expense: you may wish to enquire with your home oxygen service/supplier. If you are a DVA veteran you may be eligible for a portable concentrator machine. Contact your respiratory nurse/community nurse to discuss.

Please note: portable oxygen concentrators are not suitable for everyone. Please contact your respiratory nurse/community nurse to discuss if portable oxygen concentrators are suitable for your needs.

USING OXYGEN EQUIPMENT

Ordering oxygen cylinders

- > Your allowance of oxygen will be supplied and delivered at no cost to you.
- > You are entitled to one free delivery each month. Additional deliveries or cylinders above your allocation will be at your own cost.
- > You may only swap one empty cylinder for one full cylinder.
- > It is your responsibility to order your oxygen.
- It is important to order your oxygen before 12 noon for next day delivery (1.30pm paediatric clients).
- It is important that you are home at the time of delivery or have left your empty cylinders in an area agreed with your home oxygen supplier. An additional fee may result if you are not home and/or cylinders cannot be swapped.
- > You must not keep more than your allocation of cylinders unless you have privately purchased extra cylinders.
- > It is important to give at least 24 hours' notice and remember there are no weekend or public holiday deliveries.
- > Plan ahead for high demand periods such as Easter and Christmas.
- If you reside in a country area your local health service will advise you how to order or collect your allocated oxygen cylinders.

Smoking and oxygen therapy

To be eligible for oxygen therapy you must have CEASED SMOKING FOR A MINIMUM OF FOUR WEEKS AND CONTINUE NOT TO SMOKE once prescribed oxygen therapy. It is also a good time for you to stop smoking if your child has been prescribed home oxygen.

Carbon monoxide from inhaled cigarette smoke reduces the amount of oxygen being carried by the blood. Therefore, if you smoke you will receive little benefit from your oxygen therapy.

You will be tested to ensure abstinence from smoking as part of your routine testing for your oxygen requirements.

SMOKING IS NOT ALLOWED WHILE OXYGEN IS IN YOUR HOME OR IN USE.



Oxygen is an oxidizing agent; which means that oxygen can make a fire progress very quickly. It can cause a smouldering cigarette to burst into flames. Do not allow visitors to smoke near you or in your home whilst oxygen is in use. IT IS A FIRE HAZARD.

Smoking while using oxygen therapy can cause burns to the face and fatal fires.

Equipment safety

Home oxygen therapy is very safe providing you follow some simple safety instructions. When you start home oxygen therapy your oxygen service/ supplier will provide a home assessment. This will include information about the use of oxygen, oxygen safety and service schedules.

- > Keep oxygen equipment at least two metres away from electrical equipment, open flames or spark producing devices e.g. gas stoves, toasters, electrical heaters, hair dryers, electric shavers, and electric blankets.
- > Do not use oil or petroleum based products like Vaseline or baby oil on your skin. Use water based lubricants on your lips or nostrils such as KY Gel.
- > Do not change your oxygen flow rate unless directed by your doctor.
- > Do not attach more than one eight metre extension tube to your concentrator. The extension tube will allow you to walk around more but if the tube is too long it you may not receive your oxygen. The concentrator machine is unable to drive the gas further than the combined length of the extension tubing and nasal cannula.
- > Keep a fire extinguisher and fire blanket at home within easy reach.
- > Ensure you have smoke/fire alarms within your home that are in working order.
- > Keep a battery-operated torch in your home in case of a power outage.
- > Do not use matches or candles to ignite things or as lighting.
- > Do not attempt to service or fix the oxygen equipment. If your equipment is faulty or broken contact your supplier (contact details supplied in this booklet).



- > Ensure your room and/or home is well ventilated.
- Do not install the oxygen concentrator close to curtains, upholstered seats or any other material surfaces. Allow a gap of at least 15 centimetres around the concentrator.

Misuse or failure to follow the safety precautions may result in the health service refusing to continue to supply your free home oxygen therapy.

What to do in a power failure

It is important that you register as a power dependant critical care consumer with SA Power Networks Power@MyPlace.

This is a free messaging service which provides timely and accurate information regarding power at your property, via SMS text message or email to registered customers.

Contact SA Power Networks on 13 12 61 to arrange to receive these alerts or register via <u>SA Power Networks</u>

In the event of a blackout:

- > Stay calm.
- > Use your torch for lighting. DO NOT USE MATCHES, CANDLES OR A NAKED FLAME.
- If using oxygen 24 hours per day use your oxygen cylinder. If your last oxygen cylinder is running low and you feel you require oxygen you should try and arrange transport for yourself and your concentrator to a friend or relatives where the power has not gone out. Alternatively, calmly make your way to hospital, call your oxygen supplier for emergency delivery or in an emergency, always call Triple Zero (000).
- > Limit your physical activity, stop and rest.
- In cases of prolonged power failure* use a mobile phone to call 13 13 66 and follow the prompts; this will direct you to SA Power Networks – power outages and emergencies.
- It is important to advise your electricity provider that you have been prescribed home oxygen therapy and that you have an oxygen concentrator set up in your home. This will give your provider the opportunity to restore your power as a priority as well as provide you with prior notice of any planned outages.

> Contact your respiratory nurse or the home oxygen service/supplier if you receive notice of a planned extended power outage and require additional cylinders.

For more information refer to the *Do you depend on power*? booklet located at <u>sahealth.sa.gov.au/emergencymanagement</u>.

* Prolonged power failure refers to any power outage greater than eight hours or where the supply of oxygen cylinder is limited.

Equipment and skin care

Clean the nasal prongs as needed by washing in warm soapy water, rinse well and pat dry. It is recommended that you replace your nasal cannula every month. Replacement tubing can be ordered through your home oxygen supplier or home equipment centre.

Oxygen therapy may cause irritation of the nose. To reduce the chance of this occurring and to relieve discomfort, you may wish to use a nasal lubricant. This can be purchased from your local chemist, supermarket or oxygen supplier and includes products such as Nozoil, saline sprays and water based lubricants such as KY Gel.

Never use products like flammable oil or alcohol-based products near your oxygen. Flammable products include those that contain oil, paraffin, petroleum or alcohol such as baby oil, Vaseline or Vicks Vaporub.

Your nasal prongs may also cause discomfort or skin breakdown to the skin behind your ears. Pressure and friction from the oxygen tubing can lead to reddened, sore and in some cases severe wounds behind your ears. Products such as Ezy Wraps and Comfy Ears can relieve this discomfort and prevent skin breakdown and are available from your oxygen supplier. Alternatively, you may use cotton wool or gauze which can provide the same effect. Speak to your respiratory nurse/community nurse if you have concerns about skin breakdown, or require further information.



USING OXYGEN EQUIPMENT: CONCESSIONS

Electricity rebate

Oxygen concentrators use electricity and will cause an increase in your energy bill. The running cost of a concentrator is similar to a small bar fridge.

If you are a pensioner or hold a health care card, and are receiving State funded oxygen therapy, you are eligible to receive a 50 per cent rebate on the electricity used by your concentrator. Please tell your respiratory nurse/community nurse your pensioner health care card number. If you have a self-funded portable oxygen concentrator machine you are not eligible for an electricity rebate.

The amount of the electricity rebate is determined using the AGL tariffs regardless of your electricity supplier.

Depending on the hospital or health service funding your equipment, your electricity rebate:

> Will automatically be sent to you every three months following the service of your concentrator. Alternatively, you can arrange direct transfer into your account via your oxygen supplier.

or

> Will be sent to you upon receipt of your completed reimbursement form with an attached copy of your electricity bill.

or

If you are an entitled veteran please contact the Department of Veterans' Affairs on 1800 555 254 to obtain the necessary application form to apply for your rebate.

Your respiratory nurse/community nurse will advise you of the process applicable to your rebate.

Please note: this does not mean you will receive a 50 per cent rebate on your entire electricity bill - the electricity rebate only applies to the electricity *usage of your oxygen concentrator*.

Private health insurance

Some private health insurance providers provide subsidies for oxygen equipment. Please contact your private insurance providers to discuss further.

Other concessions

The South Australian Department of Human Services provides a number of concessions to help South Australians on low or fixed incomes with the cost of household and other expenses.

For further information:

- > Please visit sa.gov.au/concessions
- > Concessions-SA Hotline 1800 307 758, Monday Friday, 9am 5pm
- > Interpreting and Translating Centre 1800 280 203
- > Hearing and Speech Impairment TTY 08 8226 6789

The Federal Government provides an Essential Medical Equipment Payment which provides assistance of up to \$157 annually. It is available to eligible Australians who experience additional increases in energy costs from using medical equipment in home to manage their medical condition. Further information can be found at <u>humanservices.gov.au/</u> <u>customer/services/centrelink/essential-medical-equipment-payment</u> or by contacting your local Centrelink office.

OXYGEN AND EVERYDAY LIFE

Personal care

Showering

Oxygen can be safely used when showering. The concentrator must remain outside the shower area or bathroom to prevent it from getting wet.

Using oxygen in the home

There are a lot of benefits from home oxygen therapy; however it can take time to get used to it. Some people feel self-conscious about wearing oxygen when going out in public or feel that they have become tied to a machine.

These initial feelings are normal but generally people notice that their quality of life improves with oxygen and they are able to do more than previously. Home oxygen allows more control of your life and usually improves the way you live. Most people report that with a few changes to their lifestyle, they discover more things that they can do.



TRAVELLING WITH OXYGEN

In most cases travelling locally, interstate, or even overseas, with oxygen therapy is possible. It takes some careful planning whether you will be taking public transport, using your own car or travelling by air or boat.

It is important that you discuss your requirements for travelling with oxygen therapy with your respiratory team. It is required that you seek permission from your health service and oxygen supplier to take oxygen on your travels.

Travel may have extra costs not funded by your health service.

Driving a motor vehicle

Your respiratory physician or respiratory nurse/community nurse will indicate if you require oxygen therapy while driving a motor vehicle.

If your oxygen prescription is continuous, it is advised that you use oxygen while operating a motor vehicle.

In accordance with national medical guidelines for commercial and private vehicle drivers, which are used by all state and territory licensing authorities, licence holders are required to notify their licensing authority if they suffer from any medical condition, injury or illness that may impair their ability to safely operate a motor vehicle.

Safety recommendations for oxygen in a motor vehicle

Oxygen cylinders and your oxygen concentrator machine can both be carried in a motor vehicle.

If you require oxygen while in the car, each cylinder (and trolley) should be well secured in either an upright or horizontal position behind the passenger seat. Your concentrator should always be carried in an upright position and if possible, in the boot of a vehicle. If you place the concentrator on the back seat of the car, make sure it is firmly held with a seatbelt. It may also be possible to secure it standing upright behind the passenger seat. Securing the concentrator will reduce the chance of it moving when braking or during an accident.

- Extra cylinders may be placed in the boot of the car, but must be secured so that they do not roll around. Unload all cylinders as soon as possible and move them to a cool, well-ventilated area.
- > To prevent a build-up of oxygen within the cabin of the car when oxygen is in use, the car windows should be open slightly and the air conditioning vent set to fresh air.

Travelling by air

When travelling by air, people with lung disease sometimes require oxygen. This is because the air pressure in the airplane cabin is lower than on the ground, which will lower your oxygen levels.

- It is important that you discuss air travel with your respiratory physician as the oxygen content in your blood can be affected by altitude.
- > Your respiratory physician will advise if it is appropriate for you to travel by air and if appropriate will specify a flow rate of oxygen different from your normal prescription for use in flight. You may require a flight simulation test in a lung function laboratory prior to travelling.
- > A travel clearance form must be completed at least 30 days prior to travel by your respiratory physician if you require oxygen therapy when flying. The travel clearance form must be forwarded to the airline; the airline's medical department will determine whether they can accommodate you. Carry this form with you during your flight. More information about where you can get this form, when it needs to be completed and when it should be sent to the airline is usually available on the website of your carrier; alternatively you can discuss this with your travel agent. Do not book your flight without first contacting the airline to inform them that you will require oxygen in flight.
- You will need to arrange a flight approved travel bag and cylinder through your home oxygen service/supplier. Oxygen used for travel and at your destination will be at your own expense. Always start your flight with a full cylinder.

- > Entitled veterans are able to receive funded oxygen equipment for travel. Please seek approval from the Department of Veterans' Affairs prior to speaking to your local oxygen supplier.
- If you are planning to use a portable oxygen concentrator for air travel you will need to enquire which are approved by your airline. Please note: there are varying altitude ranges with different machines.

Travel insurance

It is important that you check with your airline and your travel insurance company if home oxygen therapy is covered prior to departure.

YOUR RESPONSIBILITIES IN THE MANAGEMENT OF HEALTH AND LUNG FUNCTION

- > Use all your medications and oxygen as prescribed and have an action plan completed by your respiratory specialist.
- See your doctor if you are unwell or notice a deterioration in your condition. It is important that you and your family keep your vaccinations (influenza, Pneumovax and whooping cough) up to date.
- > Discuss a pulmonary rehabilitation program with your respiratory physician, General Practitioner (GP) or respiratory nurse/community nurse. These programs involve exercise training and education sessions to help teach you more about your lung condition and improve your quality of life.
- It is important that you advise visiting staff involved in the management of your care of any infectious diseases that you may have been in contact with.
- > Have a yearly review by a respiratory specialist.
- > Consider joining a support group for people with lung disease. For groups in your local area call The Australian Lung Foundation toll-free on 1800 654 301 or visit <u>lungfoundation.com</u>

EQUIPMENT PROBLEMS

Do not try to repair any equipment yourself. Please contact your oxygen supplier for repairs or problems with your oxygen concentrator 24 hours a day.

> Air Liquide	1300 360 202

- > BOC Gases 1800 050 999
- > Respirico 0466 111 782 Toll-free 1800 208 826
- > Wymedical Pty Ltd
 After hours
 08 8338 6011
 Toll-free
 1800 812 097

General enquiries

Please notify your respiratory nurse/community nurse if you:

- > Have any queries in relation to your home oxygen therapy.
- > Your respiratory physician alters your oxygen prescription (flow rate or hours).
- > Move to a residential aged care facility (oxygen equipment is funded differently via Medicare; State funded oxygen will need to be collected).
- > No longer require the oxygen equipment.

Ensure you have the contact details of your respiratory nurse in a safe place.

For more information

Please contact your respiratory specialist clinic, your local hospital, or

Community Systems Service Improvement, Operational Service Improvement and Demand Management Department for Health and Wellbeing Telephone: 8226 4232 Fax: 8226 6633

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