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## Paediatric respiratory medicine

### Home oxygen

#### Parents' guide to going home with oxygen

##### Home oxygen assessment

An assessment will take place at your home to ensure your home environment is suitable for oxygen. This will be carried out by the community nursing team.

Before the oxygen prescription can be completed you must sign a consent form to confirm that you are happy for oxygen to be installed, then the prescription 'Home Oxygen Order Form' (HOOF) will be sent.

BOC the company supplying the oxygen will install the oxygen equipment required within three working days of the order being placed.

- Provide an emergency backup cylinder to your home (if you're using an oxygen concentrator)
- In the event of a concentrator machine breakdown, they provide an emergency call-out service and guarantee to be at your home within eight hours of the call out.
- Reimburse your electricity costs (if you're using an oxygen concentrator)
- Inform the fire service
- Provide nasal cannula / oxygen tubing
- Provide a carry bag for portable oxygen cylinders

BOC will contact you by phone to arrange a convenient time to install.

BOC have a variety of different oxygen equipment available, including:

- Oxygen concentrators static
- Cylinders static
- Portable cylinders

##### What is an oxygen concentrator?

An oxygen concentrator is a machine operated by electricity, weighs approximately 25kg (55lb) and are 50 to 70cm (19.5-27.5ins) high. The machine draws in air from the room atmosphere, separates the oxygen from the other gases in the air and delivers oxygen to your child. It is simple and easy to use.



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## Emergency backup service

An emergency backup cylinder will be provided and if there are any problems with the oxygen concentrator, parents are advised to use the backup supply and contact the company.

## Further information for parents and carers

The concentrator can be slightly noisy. If possible it should not be installed in the bedroom as the noise may disturb the family during the night. The concentrator will only work if there is an electricity supply. You need to inform your electricity supplier that your child requires oxygen, so that your supply is always given priority.

## Static oxygen cylinders

These are mainly used as backup for the concentrator and are simple and effective.

## Portable oxygen cylinders

If your child requires oxygen at night and during the day, you will require portable oxygen cylinders so that you can go out. These cylinders are lightweight.

The table overleaf gives an overview of nominal oxygen cylinder duration versus different oxygen flow rates. This will give you an indication of how long you can expect an oxygen cylinder to last and to gauge when it will need replacing. If you are concerned about how to use the table, please contact BOC Customer Service on 0800 136603 for advice.

## Nasal cannula

Nasal cannulas are used to deliver a low to moderate concentration of oxygen and are easily applied as long as your child's nasal passages are open. Eating, talking and coughing are all possible. You are advised to **change the nasal cannula every month**. The small tubes should be soft and pliable and to avoid soreness around the nose they should be inspected regularly. If they do become blocked with mucus or become hard or discoloured, they should be discarded and a new set used. The use of petroleum-based creams (for example, Vaseline) around the nose should be avoided, as these react with oxygen and may cause soreness. Water-based creams such as E45 or KY jelly can be used if required.



### Oxygen Cylinder Duration Chart Nominal duration versus selected flowrate

The cylinder duration times are approximate and are to be used as guidance. The cylinder contents gauge should be checked prior to use to ensure that there is sufficient gas available

Gauge Contents*		Full (100%)		Half (50%)		Low (25%)	
Cylinder Size	Flowrate* (lit/min)	Duration (hours)	Duration (Mins)	Duration (hours)	Duration (Mins)	Duration (hours)	Duration (Mins)
ZA Dimensions L390mm X Ø85mm Weight (full) 1.75 kg	15	0 hr 20 min	20 min	0 hr 10 min	10 min	0 hr 5 min	5 min
	12	0 hr 25 min	25 min	0 hr 12 min	12 min	0 hr 6 min	6 min
	10	0 hr 30 min	30 min	0 hr 15 min	15 min	0 hr 7 min	7 min
	8	0 hr 37 min	37 min	0 hr 18 min	18 min	0 hr 9 min	9 min
	6	0 hr 50 min	50 min	0 hr 25 min	25 min	0 hr 12 min	12 min
	4	1 hr 15 min	75 min	0 hr 37 min	37 min	0 hr 18 min	18 min
	2	2 hr 30 min	150 min	1 hr 15 min	75 min	0 hr 37 min	37 min
	1	5 hr	300 min	2 hr 30 min	150 min	1hr 15 min	75 min
	0.5	10 hr	600 min	5 hr	300 min	2 hr 30 min	150 min
0.1	50 hr	3000 min	25 hr	1500 min	12 hr 30 min	750 min	
CD Dimensions L520mm X Ø100mm Weight (full) 3.5 kg <i>(please note that the low flow rates are for when a secondary flowmeter is being used)</i>	15	0 hr 30 min	30 min	0 hr 15 min	15 min	0 hr 7 min	7 min
	12	0 hr 38 min	38 min	0 hr 19 min	19 min	0 hr 9 min	9 min
	10	0 hr 46 min	46 min	0 hr 23 min	23 min	0 hr 11 min	11 min
	9	0 hr 51 min	51 min	0 hr 25 min	25 min	0 hr 12 min	12 min
	8	0 hr 57 min	57 min	0 hr 28 min	28 min	0 hr 14 min	14 min
	7	1 hr 5 min	65 min	0 hr 32 min	32 min	0 hr 16 min	16 min
	6	1 hr 16 min	76 min	0 hr 38 min	38 min	0 hr 19 min	19 min
	5	1 hr 32 min	92 min	0 hr 46 min	46 min	0 hr 23 min	23 min
	4	1 hr 55 min	115 min	0 hr 57 min	57 min	0 hr 28 min	28 min
	3	2 hr 33 min	153 min	1 hr 16 min	76 min	0 hr 38 min	38 min
	2	3 hr 50 min	230 min	1 hr 55 min	115 min	0 hr 57 min	57 min
	1	7 hr 40 min	460 min	3 hr 50 min	230 min	1 hr 55 min	115 min
	0.5	15 hr 20 min	920 min	7 hr 40 min	460 min	3 hr 50 min	230 min
0.1	76 hr 40 min	4600 min	38 hr 20 min	2300 min	19 hr 10 min	1150 min	
DD Dimensions L520mm X Ø100mm Weight (full) 3.5 kg	4	1 hr 55 min	115 min	0 hr 57 min	57 min	0 hr 28 min	28 min
	2	3 hr 50 min	230 min	1hr 55 min	115 min	0 hr 57 min	57 min
DF Dimensions L690mm X Ø175mm Weight (full) 12 kg	4	5 hr 40 min	340 min	2 hr 50 min	170 min	1 hr 25 min	85 min
	2	11 hr 20 min	680 min	5 hr 40 min	340 min	2 hr 50 min	170 min
ZH Dimensions L595mm X Ø175mm Weight (full) 14 kg	15	2 hr 40 min	160 min	1 hr 20 min	80 min	0 hr 40 min	40 min
	12	3 hr 20 min	200 min	1 hr 40 min	100 min	0 hr 50 min	50 min
	10	4 hr	240 min	2 hr	120 min	1 hr	60 min
	8	5 hr	300 min	2 hr 30 min	150 min	1 hr 15 min	75 min
	7	5 hr 42 min	342 min	2 hr 51 min	171 min	1 hr 25 min	85 min
	6	6 hr 40 min	400 min	3 hr 20 min	200 min	1 hr 40 min	100 min
	5	8 hr	480 min	4 hr	240 min	2 hr	120 min
	4	10 hr	600 min	5 hr	300 min	2 hr 30 min	150 min
	3	13 hr 20 min	800 min	6 hr 40 min	400 min	3 hr 20 min	200 min
	2	20 hr	1200 min	10 hr	600 min	5 hr	300 min
	1	40 hr	2400 min	20 hr	1200 min	10 hr	600 min
0.5	80 hr	4800 min	40 hr	2400 min	20 hr	1200 min	
0.1	400 hr	24000 min	200 hr	12000 min	100 hr	6000 min	

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Nasal cannulas are not available on prescription but are **supplied by BOC (the oxygen company)**.

Use the customer service helpline to order more and they will send them out to you by post.

There are four different sizes of nasal cannula:

1. Neonatal
2. Infant
3. Paediatric
4. Adult

## Oxygen safety

Oxygen is a colourless and odourless gas, which is slightly heavier than air. The presence of oxygen within a building can increase the risk of fire. Oxygen itself is not flammable but may support and accelerate combustion and cause substances to ignite more easily and burn more fiercely.

Here are a few simple precautions that are needed when using oxygen at home.

### Do not:

- Smoke near any oxygen equipment.
- Use the equipment near a fire or naked flames.
- Use grease or oil to lubricate or to come into contact with the oxygen cylinders, liquid oxygen, valves or fittings.
- Handle equipment with greasy hands.
- Store oxygen cylinders in the same place as paint, petrol, and paraffin, heating gas or other flammable materials.
- Let children play or untrained persons tamper with the oxygen equipment.
- Hang clothes over the concentrator or oxygen cylinders.

## House insurance

Inform your house building / contents insurance company that oxygen equipment has been installed in your home.

## Car insurance

You are advised to tell your car insurance company that you will be carrying portable oxygen equipment in your vehicle.

## Holidays in England and Wales

If you are planning a holiday, BOC provide a free holiday oxygen service in England and Wales.

If you are going outside the BOC contracted area, then BOC will contact the specific oxygen company for that area and oxygen can still be supplied. Be aware that if you are supplied by another oxygen company then the equipment may vary slightly.

## What you need to do:

- Contact your nurse specialist.
- Ensure you give plenty of notice (preferably four weeks)
- They will organise a repeat 'Home Oxygen Order Form' (HOOF) with details of your holiday address, travel dates etc.
- BOC will contact you to confirm arrangements.
- If you are staying in a hotel, guesthouse or caravan you need to inform the owners of the holiday destination that your child is oxygen dependent (for insurance purposes) and tell them that oxygen equipment will be used.

## Holidays abroad

There is a cost for oxygen provision abroad.

More information is available from :

Department of Health travel advice on 0845 6062030 or [www.dh.gov.uk/travellers](http://www.dh.gov.uk/travellers)

British Lung Foundation on 03000 030 555 or [www.blf.org.uk](http://www.blf.org.uk) Ask for a copy of their booklet 'Going on Holiday with a Lung Condition'

BOC customer services- 0800 136603



We are a smoke-free site: smoking will not be allowed anywhere on the hospital site. For advice and support in quitting, contact your GP or the free NHS stop smoking helpline on 0800 169 0 169.

## Other formats:



If you would like this information in another language or audio, please contact Interpreting services on telephone: 01223 256998, or email: [interpreting@addenbrookes.nhs.uk](mailto:interpreting@addenbrookes.nhs.uk) For large print information please contact the patient information team: [patient.information@addenbrookes.nhs.uk](mailto:patient.information@addenbrookes.nhs.uk)



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