

Newcastle Regional Sleep Service

Starting Continuous Positive Airway Pressure Therapy for Obstructive Sleep Apnoea

Introduction

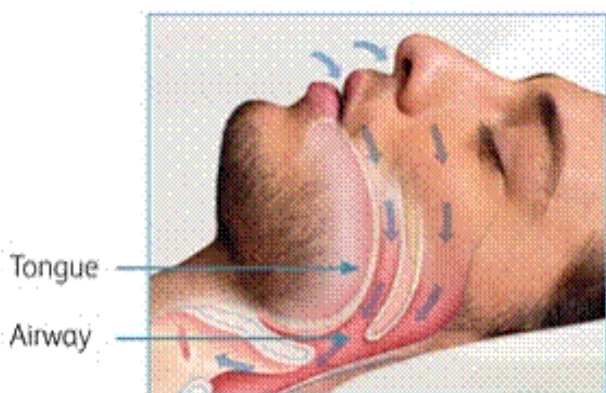
This leaflet aims to provide information about the condition Obstructive Sleep Apnoea (OSA) and treatment with Continuous Positive Airway Pressure therapy. You have recently been diagnosed with OSA and have a CPAP machine to treat your symptoms. The following information has been produced to support your use of CPAP and also contains contact details in case you have any questions or need further support.

The Obstructive Sleep Apnoea Cycle

- The muscles that keep the airways open during the daytime relax at night.
- The throat becomes blocked and air does not reach the lungs.
- Oxygen levels in the blood fall.
- The brain recognises this and starts to arouse you from sleep.
- The muscles in the neck regain their tone and breathing begins again.
- Without ever fully waking, you slip back into sleep.
- The muscles keeping the airways open relax again and the cycle of starting and stopping breathing repeats.

Normal airflow

(pictures reproduced with permission from Philips Respironics)



Obstructed Airflow



Symptoms of obstructive sleep apnoea

- Loud and chronic snoring.
- Choking, snorting or gasping during sleep.
- Long pauses in breath.
- Restless sleep.
- Going to the toilet frequently during the night.
- Waking up with a dry or sore throat.
- Morning headaches.
- Forgetfulness and difficulty concentrating, which may affect activities such as driving. OSA is a condition which is legally notifiable to the driving and vehicle licensing agency (DVLA) (see section on Driving on page 8).
- Moodiness and irritability.
- Daytime sleepiness, no matter how much time you spend in bed.
- Untreated OSA has been linked to heart attacks, high blood pressure and strokes in some people.

Continuous positive airway pressure

- CPAP is the most effective treatment for OSA.
- It is not a cure for OSA.
- Some people feel benefit immediately, while others take some time getting used to CPAP.

How does CPAP work?

- Air is pressed through a CPAP machine through tubing and a mask.
- The air then passes through the nose or mouth and into the throat.
- The pressure of the air keeps the throat open.
- The air pressure is low and does not interfere with breathing.
- The air pressure is set on the machine and is based on the level of OSA diagnosed on your overnight sleep investigation and your neck measurement.

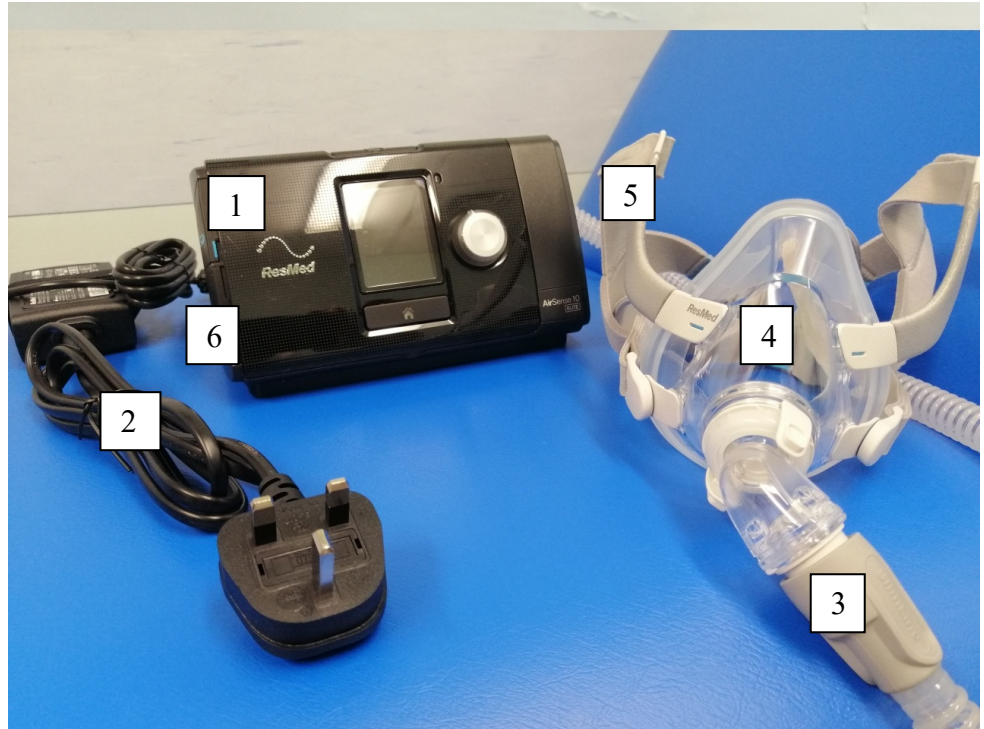
What are the benefits of using CPAP?

- CPAP can effectively control the symptoms listed on page two of this leaflet.
- It may also reduce the risk of heart attacks and stroke, and help to treat high blood pressure.
- Because effective control of OSA reduces daytime sleepiness, using CPAP can enable you to keep your driving licence.

CPAP equipment

Equipment changes from time to time. The model and mask below are examples which are currently in use at Freeman Hospital.

- 1 - CPAP unit
- 2 - mains power lead
- 3 - tube
- 4 - close fitting mask
- 5 - head straps
- 6 - dust filters (you will be shown where they are in the machine)



Using CPAP equipment at home

- Set the equipment up next to your bed, either on a bedside table or on the floor.
- Put the mask on while the machine is switched off.
- Switch it on.
- If any air leaks from the mask, adjust the straps while lying down.
- Use every time you go to sleep to gain the most benefit possible.

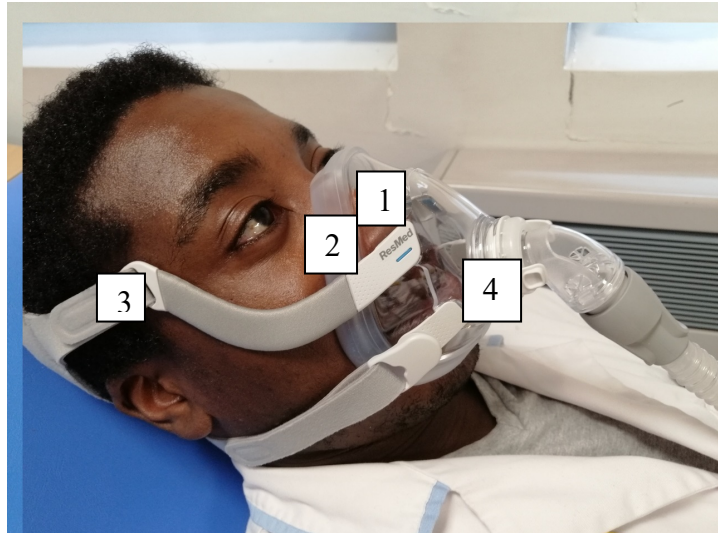
CPAP masks

A member of staff will have sent you a sizing guide so that we can find a mask that fits as comfortably as possible and does not allow air leakage.

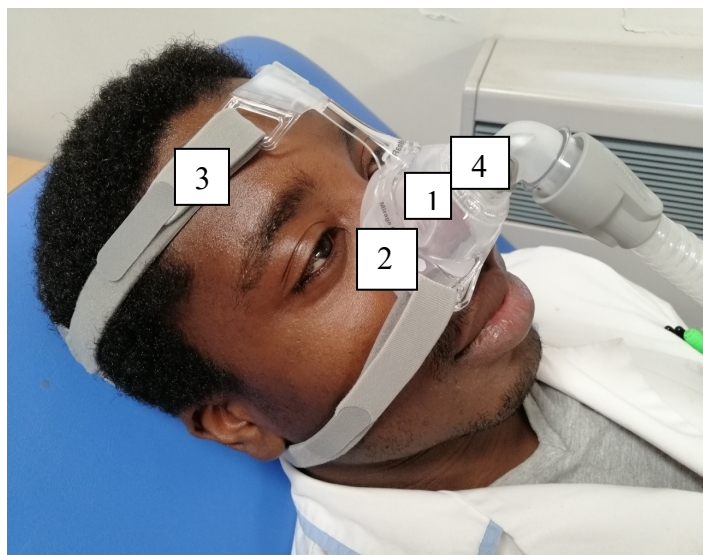
Examples of full facial and nasal masks

Full facial mask

- 1 - mask frame
- 2 - mask cushion
- 3 - adjustable Velcro head straps
- 4 - expiratory valve (small holes to allow you to breathe out)



Nasal Mask



Looking after your CPAP equipment

Every Day:

- Wash the mask every day with warm water and washing up liquid. Rinse and allow to air dry. Do not use anything containing moisturiser as it may prevent the mask from sealing properly on your face. Avoid anything which might cause irritation to your skin.
- Wipe the CPAP machine with an alcohol wipe or damp cloth every day, while switched off from the mains supply.

Every Week:

Soak the mask, tubing and head straps in warm water and washing up liquid until they are clean. Rinse and allow to air dry.

Every Three Months:

Change the dust filters. These are disposable and you will receive these when you attend your routine review appointment in the sleep clinic.

Telephone Review Appointments

We will check your CPAP usage and how well your CPAP machine is treating your obstructive sleep apnoea and discuss this with you at your telephone clinic consultation. This information is sometimes required by the DVLA or employers.

All items of the mask and air tubing are subject to normal wear and tear and may eventually need to be replaced. If any part of the equipment is not working as well as expected or has become damaged please contact the Lung Function Department by telephone or email for replacement parts.

Information for travelling

Ideally, you should take your machine with you whenever you go away. The equipment can be used in any country and will work with a standard travel adaptor. If you are going abroad you can request a customs letter from us. If you wish to take the equipment on an aeroplane it is advisable to carry it as hand luggage, as it can get damaged when stored in the hold.

Warnings

Do not use the power cable if it becomes damaged or any of the inner wires become exposed. Please contact the lung function department and a replacement can be posted out to you.

Common adjustment problems

Mask discomfort

- Check that you have fitted the mask correctly.
- Contact a physiologist in the lung function department for help if you can not remember how to do this. See the end of this leaflet for contact details.

Feeling claustrophobic

- Practice holding the mask near to your face, without fastening the straps. Gradually build up the time you are able to wear the mask.
- Try the mask on with the pressure switched on, perhaps during the daytime while you are awake. Watching TV may help you to feel calmer.
- Increase the time until you are ready to wear the mask with the pressure switched on to go to sleep.

Difficulty tolerating the pressurised air

- Ask the physiologist to show you how to adjust the ramp and expiratory pressure relief (EPR) facilities. The ramp allows you to set the pressure to gradually climb over a period of time and the EPR reduces the pressure slightly as you breathe out.

Dryness / stuffy nose

- Check that you have fitted the mask correctly.
- Ask the physiologist about using a humidifier. This is an attachment for your machine, which humidifies and warms the air.
- If required, your doctor can prescribe a nasal spray.

Continued snoring, mask leaking air, skin irritation or pressure marks

- Try to adjust your mask so that it fits correctly. Follow the instructions which came with the mask.
- If the problems continue, contact a physiologist for help. You might need to be assessed for a different size or type of mask.

Removing the mask unintentionally during sleep

- Due to discomfort. Try the suggestions already given for mask discomfort.
- Due to nasal congestion. Ask about a humidifier.
- Some people continue to do this without any obvious reason.

Noise

- Check the mask and mask fit. Are any parts loose or missing?
- Change the dust filter on the machine.
- Contact the lung function department to have the machine checked.

Stomach pains and belching

- Increase the EPR (see 'Difficulty tolerating the pressurised air' on page 6).
- Try using two pillows to sleep.
- If this does not help, ask for the air pressure to be reduced.
- A nasal mask may also help by allowing some air to escape through your mouth, though this might reduce the effectiveness of your treatment.

Tele monitoring and Consent

Your CPAP machine is enabled for remote monitoring. This allows for evaluation of your CPAP treatment and changes to be made to your prescription if required. All data is stored by an external company (ResMed). ResMed have no access to your data but the Newcastle Hospital's Sleep Department can access this data at any time to support you in using this therapy. Your machine will need to be connected to the power supply for one hour after use to allow the transfer of this information. Unless you contact us we will assume that you are happy to consent to the use of remote monitoring. If you have any concerns or would like to discuss this with a member of staff please contact us using the email or telephone number below.

CPAP Support

CPAP support is offered through the Lung Function Department at Freeman Hospital. Please email newcastle.sleep@nhs.net including your name, contact details and query.

Or alternatively telephone 0191 213 7784 Mon-Thursday 8:30am to 5pm, Friday 8:30am to 4pm.

We are happy to see CPAP patients within the department only when a prior appointment has been made using the contact details above.

Driving

Current guidance and regulations relating to driving and OSA can be found on the DVLA Website: <https://www.gov.uk/obstructive-sleep-apnoea-and-driving>

For further information

Diagrams of airflow entry into throat copied with kind permission from Philips Respironics.

Sleep Apnoea Trust – 0845 606 0685 - www.sleep-apnoea-trust.org

British Snoring and Sleep Apnoea association - www.britishsnoring.co.uk

British Lung Foundation – www.lunguk.org/media-and-campaigning/media-centre/lung-stats-and-facts/sleepapnoea

NICE (2008): CPAP for OSA <http://www.nice.org.uk/nicemedia/live/11944/40088/40088.pdf>

DVLA: <http://www.dvla.gov.uk>

Tel: 03007906806 (car, motorcycle),

03007906807 (bus, coach, lorry) (8.15am to 4.30pm, Monday to Friday).

If you would like further information about health conditions and treatment options, you may wish to have a look at the NHS Choices website at www.nhs.uk. On this website there is an information prescription generator www.nhs.uk/ips which brings together a wealth of approved patient information from the NHS and charity partners which you may find helpful

The Patient Advice and Liaison Service (PALS) can offer on-the-spot advice and information about the NHS. You can contact them on freephone 0800 032 02 02 or email northoftynepals@nhct.nhs.uk

This leaflet is available in alternative formats on request by telephoning 0191 223 1823 or 0191 213 8973

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