

**Patient
Information**

Bilevel Positive Air Pressure Therapy (BiPAP)

BiPAP therapy agreement

Patient name: _____

MRN: _____

Device Name: Dreamstation BiPAP

Device Serial No: _____

As part of the treatment for your sleep-disordered breathing you have been loaned a Dreamstation BiPAP device along with instructions on how to care for it.

This equipment remains the property of Gloucestershire Hospitals NHS Foundation Trust (GHNHST). If for any reason you no longer need to use this therapy device, you move out of the area or simply wish to return it, we would ask that you contact one of our departments by telephone to arrange this. The contact numbers are at the end of this leaflet.

A BiPAP device is very expensive, so please take good care of it and maintain it as instructed in this leaflet. By signing this agreement, you are confirming that you are aware and understand the information provided above.

Please make sure that we have your up to date address and telephone number.

Name: _____

Signature: _____

Date: _____

Reference No.

GHPI1540_12_22

Department

Lung Function

Review due

December 2025

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Introduction

This leaflet provides you with some supporting information to assist you with your BiPAP therapy.

BiPAP therapy is provided to help with sleep-disordered breathing. This can happen due to many reasons including respiratory and neurological conditions.

How the lungs work

The main function of the lungs is to get oxygen into the body and remove carbon dioxide. When the lungs start to fail, oxygen levels drop and carbon dioxide levels can rise – this is often called respiratory failure.

Why do I need BiPAP therapy?

Due to your medical condition, you are unable to breathe as deeply as your body requires while you are asleep.

Using the BiPAP device will help keep the oxygen and carbon dioxide gases in your blood at a healthy level. This should help you to feel more refreshed the next day.

How does BiPAP therapy work?

A BiPAP device will blow pressurised room air as you breathe in, to support your respiratory muscles. It will blow a lower pressure as you breathe out.

If a breath is not taken by you within a set period of time the BiPAP device may deliver a breath. This is controlled by the 'back up breath rate' that will be set depending on your needs.

For some medical conditions we also use a setting which allows the BiPAP device to blow a range of pressures as you breathe in. The pressure will change during the night depending on how much support your respiratory muscles need. This is because in some stages of sleep the respiratory muscles are more relaxed meaning that a higher pressure is needed.

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When will I need to use BiPAP?

The BiPAP device should be used every night or whenever you sleep. This will make the most of the benefits gained from BiPAP therapy and prevent your symptoms from returning. If you do not use the BiPAP device regularly it will be harder to get used to the treatment and will delay the benefits of using it.

Some patients will need to use the BiPAP device during the day while awake; your respiratory consultant will advise you if this is the case.

When to contact Lung Function

If you are experiencing any of the following, please contact us using the details at the end of this leaflet:

- Morning headaches
- Unexplained confusion
- Feeling more sleepy than usual
- Sore skin where the mask is in contact with your face
- If you are using your BiPAP device for more than 16 hours a day

Informing Western Power Distribution

It is a good idea to let Western Power Distribution know that you are using BiPAP therapy so that you have priority in a power cut to reconnect your electricity supply as soon as possible. They may also give you a different telephone number to contact them when your power fails to allow you to get faster updates on the situation.

Out of hours care

Most people are able to sleep for a couple of nights without using the BiPAP device. If you do not use the BiPAP device you should try to sleep propped up, if possible, as breathing will feel easier in this position. The Lung Function Department does not provide an out of hours service so if you feel you would need to be admitted to hospital because you do not have or will not have a working BiPAP device for 1 or 2 nights please get in touch to discuss. In these situations, we usually provide a backup device if your respiratory consultant agrees this to be necessary.

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Palliative care

If your medical condition is palliative there may come a time when you choose to stop BiPAP therapy. Please discuss this with your Palliative Care Consultant as there are medications that can be prescribed to reduce the sensation of breathlessness during this time.

Therapy details

This information will be helpful to us should you need to contact us about your treatment.

The key to successful BiPAP therapy is determination and mask hygiene.

Consultant	
BiPAP settings	
Mode:	
IPAP:	
EPAP:	
Back up breath rate:	
Other settings:	
Mask details:	
Type : Full face / Nasal / Nasal pillows	
Mask manufacturer:	
Mask name:	
Specific additions: i.e. Chin strap	

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Ongoing care

Next appointment with:	Date:
Lung Function:	
Respiratory consultant:	

Care of the equipment

The BiPAP device - It is important that the BiPAP device is placed on a firm and flat surface near to the bed. It should be kept clean and dust free, particularly around the air inlet. Do not run the machine while it is in the bag.

Mask – Your mask should be washed in warm soapy water on a daily basis. We recommend that you use a non-perfumed washing up liquid but not Fairy® as it is too strong. Leave to dry in the air on a towel or paper. Do not dry on a source of direct heat such as a radiator.

Mask frame – This should be washed in warm soapy water on a weekly basis.

Headstraps and chin restraints – It is a good idea to wash these on a weekly basis using warm soapy water.

When removing for cleaning you can mark the straps with a pen so you know where to re-attach them.

Hose – Wash the hose out in warm soapy water, once a week. You should make sure that the hose is allowed to hang to drain away any water before re-connecting to the BiPAP device. If some water remains in the hose connect it to the BiPAP device, put the mask end on the floor on a towel and run the device. This will blow dry the hose before you use it again.

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Air filter – This should be cleaned monthly by running under warm water and leaving it out to dry before replacing in the device. It is important the BiPAP device is not operated without the filter in place as this protects it from dust clogging the motor. The filter is found under the side flap of the device.

How to use your BiPAP

The equipment you have should include:

1 x Dreamstation BiPAP device
1 x Electrical power cable
1 x Hose
1 x Mask (the type may vary depending on your individual need)

Setting up the BiPAP

- Place the BiPAP device on a firm flat surface within easy reach but lower than your sleeping position.
- Plug in the electrical power cable.
- Connect the hose to the air outlet on the back of the device.
- Connect the mask to the other end of the hose.
- Switch on the power at the plug.
- Put the mask onto your face as shown at your appointment.
- Use the on/off button on the top of the BiPAP device to start the airflow.
- Use the ramp button (with a triangle on it) on the top of the BiPAP device to lower the pressure if it feels too hard to breathe. The pressure will then gradually increase back up to your set pressure over 20 minutes.
- To stop the airflow, press and hold the on/off button on the top of the device for 2 seconds.

How to reduce mask leaks

The main problems experienced when using BiPAP therapy are usually due to the mask leaking. You need to make sure that the mask is fitted correctly. Wearing the mask too loose or too tight can cause leaks, so try refitting the mask by either tightening or loosening the straps equally on both sides. Doing this will make sure that the mask keeps an even pressure on both sides of your face.

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The cushion of your mask should be washed every day. This is because even after just one night, the cushion will absorb your facial oils and will not seal with your skin again until these oils are washed off with warm soapy water.

Facial hair can cause leaks, so if you have a beard you may need to try trimming it. Stubble can also prevent a good seal.

Moisturisers and face creams can create a barrier and affect the seal. Try applying cream at least 1 hour before using the BiPAP device.

If the mask or hose gets damaged or broken, please contact the Lung Function Department to arrange a replacement. With the correct care, these should last for at least 1 year. Please be aware, we are unable to offer a drop-in service for replacement parts, you must call first to arrange a date and time. If replacement parts are in stock, these will be put to one side for you to collect. If parts need ordering we will contact you once they are delivered with a time for collection.

If leaks persist, call the Lung Function Department for advice.

Side effects from treatment

Rhinitis

The nasal passages are sensitive to the introduction of air at pressure and often produce mucus for protection. This is usually just an initial response to the treatment and should settle down.

Bloating

Stomach discomfort and gas can build up if you are swallowing air. You can ease these effects by sleeping with an extra pillow to raise you to a better position. If you have a nasal mask, you may find it helpful to use a chin strap because you may be mouth breathing. Please contact the Lung Function Department if you think this might be the case.

**Patient
Information****Sore spot on the bridge of your nose**

Try loosening the straps around your forehead. Remember to wash the cushion every morning as this will help to keep a good seal on your face without the need to pull the straps too tight.

There are mask liners and nasal bridge pads available to purchase from the internet which some patients find useful.

Please type the following link into your internet browser:

www.hope2sleep.co.uk/cpap-mask-comfort-solutions

Unfortunately, we are not able to fund these on the NHS. If the problem persists, please call the Lung Function Department for further advice.

Excessive mouth dryness

Mouth dryness can happen if you are using a nasal mask and are opening your mouth to breathe. Please contact the Lung Function Department so that we can provide you with a chin strap to help keep your mouth closed or assess you for a full-face mask which will allow you to breathe through both your nose and mouth. You could also try raising your bedroom temperature as the warmer the air the more moisture it can hold.

If these remedies do not ease your dryness, we may need to look at other alternatives.

Waking during the night

It is common in the early stages of treatment for the BiPAP device to wake you up when it reaches higher pressures. You will get used to the sensation but it can take some time, so please try to continue with the treatment. There is a ramp button on the machine with a triangle on it that you can press to reduce the pressure to allow yourself to get back to sleep.

Cold nose

BiPAP therapy uses room air and will only be as warm as the room that the machine is placed in. The air can be warmed slightly to combat this by altering the temperature of your bedroom (thermostat) or closing windows. Alternatively, you can place the hose under the duvet to warm the air slightly or purchase a 'BiPAP hose insulator' from the internet.

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Frequently asked questions

My mask will not fit onto my hose?

Many masks have a small removable plastic connector that joins the mask to the hose. Check if this is in place. If the problem persists, please contact the Lung function Department.

Why is air escaping from the holes at the front of the mask?

The port holes at the front of the mask are for your exhaled air (carbon dioxide); they are not a design fault and should not be taped over or obstructed.

Do I need to bring my BiPAP device into hospital?

Yes – you will need it for an overnight stay so you must insist it comes with you, or ask a relative to bring it in for you.

I am going away; do I need to take my BiPAP device?

Yes. BiPAP therapy needs to continue every night to prevent your daytime sleepiness returning. If you are travelling by plane, we can provide you with a letter for the airline advising that the BiPAP device will be additional hand luggage to prevent damage or loss within a suitcase. Please notify us well in advance so a letter can be arranged before your departure.

Can I have a battery to power my BiPAP device?

Please call us for advice on this matter.

Can I use oxygen with my BiPAP device?

Yes, we can provide an oxygen connector that attaches to the BiPAP device's air outlet which the hose then attaches to. We will also supply green oxygen tubing that goes from your oxygen concentrator to the oxygen connector on the BiPAP device.

Humidification

How does the humidifier help?

Humidification may be provided to help you with the symptoms of a dry mouth or dry nose associated with BiPAP therapy.

It is not part of standard therapy and may not be discussed with you unless you mention you are having problems.

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How to use the humidifier

Please make sure you fill the humidification chamber with fresh water every day. Tap water must be boiled and then left to cool to room temperature before pouring into the humidifier chamber. Alternatively, you can buy distilled water to use.

There is a line on the side of the chamber; fill with water up to this line. It is very important not to over or under-fill the chamber as this can cause permanent damage to your BiPAP device.

The chamber needs to be washed every morning and left to air dry.

When you use your BiPAP device at night, please make sure that it is always lower than your head. This is in case you get condensation in the hose which will be noisy. Having the BiPAP device lower than your head will allow the water to run down into the water chamber.

Setting the temperature

All humidifiers have a temperature adjustment dial. The lower end of the scale is a lower heat setting. If you wake up feeling dry when you use the machine on a lower setting, try turning the temperature up by one. The highest setting is 5. To adjust the temperature setting use the round button to the right of the screen while the pressure is running. If you wake up and there is condensation in the hose, either the humidification temperature needs to be turned down or you need to increase the temperature of your bedroom and attempt to insulate the hose.

Sleeping with the hose under the duvet so the air surrounding the hose is slightly warmed is one way to insulate the hose and reduce condensation.

Sometimes it is difficult to get the correct balance between having condensation in the hose and still feeling dry, please contact the Lung Function Department for advice if this happens.

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Water levels

The chamber should never completely run out of water in the night. If it does, it is likely that your bedroom is too cold and dry causing the BiPAP device to overwork to humidify the air. It may also be that your mask is leaking. Please contact the department for advice if you are often running out of water in the chamber.

Transporting the BiPAP device

Please make sure that you always empty the water out of the chamber before moving the BiPAP device. This will avoid any water flowing back into the device.

DreamMapper (Philips Respironics)

There is a free app and web-based software called DreamMapper that can help keep you motivated. It tracks your therapy performance simply and clearly.

DreamMapper is available as an app on your phone or tablet which will link to your BiPAP device via bluetooth. For more information about DreamMapper and details of how to register please copy the following web address into your internet browser: www.sleepapnea.com/products/dreammapper/how-it-works/

DreamMapper will let you know how your night's sleep went and how you are progressing. It will also tell you if you are not making progress and offers helpful advice to get you back on track; such as videos and guides to help you properly use and maintain your Philips Respironics masks and other DreamMapper compatible equipment.

One of the benefits of DreamMapper is that it allows your clinicians to review your therapy data which may reduce the need for attending hospital appointments for BiPAP device setting changes.

If you are happy to share your BiPAP therapy data with the Lung Function Department please go to the settings menu in the app, then select preferences. You should then select yes to the question about sharing your data with your home care provider.

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3G Cellular modems

The Dreamstation cellular modem can automatically transfer data between the BiPAP device and the Lung Function Department.

This provides the benefits as with DreamMapper but without any need for the patient to use an app or web-based software.

Contact information

If you have any questions or concerns about the BiPAP therapy, please contact the Lung Function Department. **Please note we do not offer a drop-in service.**

Lung Function Department

Cheltenham General Hospital

Tel: 0300 422 4313

Monday to Friday, 8:00 am to 5:30 pm

Thursdays, 8:00 am to 7:00 pm

Email: ghn-tr.lung.function@nhs.net

Website: www.gloshospitals.nhs.uk/sleepservice

Content reviewed: December 2022