



**University
Hospitals Sussex**
NHS Foundation Trust

Home non-invasive ventilation service

Patient information

What is home non-invasive ventilation?

Home non-invasive ventilation is a therapy that is used at home to help with your breathing. It uses a machine called a ventilator that delivers a positive pressure to open up your lungs. You may hear the term BiPAP, which stands for Bi-level Positive Airway Pressure. This means that the ventilator will deliver a certain pressure when you breathe in and when you breathe out. This will help to avoid a collapse of the bases of your lungs.

The machine connects to some plastic tubing that is attached to a mask which will cover your mouth and nose or just your nose.

The mask has got a soft cushioned edge that adjusts to your face. It will attach to your face with the use of straps that will sit around the top and back of your head. The mask needs to be adjusted tightly enough that there is minimal leak in the device. When the straps are adjusted, you should allow two fingers between you and the straps.

If the mask is too tight it can cause a leak, as the soft plastic around the edge of the mask will collapse breaching the seal.

Why am I having this treatment?

Home non-invasive ventilation is used to assist you removing waste gases from your lungs, which is called carbon dioxide (CO₂) and to improve oxygenation. Certain medical conditions put you more at risk of retaining CO₂. The build-up of CO₂ can cause you to wake up at night, as a way to make you breathe more to eliminate CO₂. This will make you feel tired and sleepy during the

day. Also, CO₂ causes the blood vessels in your brain to dilate and you may experience headache in the morning or after a nap. Some of the conditions that can cause this build-up of CO₂ are:

- Chronic Obstructive Pulmonary Disease (COPD)
- Obesity hypoventilation
- Chest wall disorders
- Motor neuron disease.

What does it feel like? Is it painful?

Non-invasive ventilation is not painful, but it can be uncomfortable and you will need some time to get used to breathing with the positive pressure from the machine.

You will also need to get used to wearing the mask. We will choose the one that is more suitable for you. We will suggest that you start using it for a few hours during the day, before you start using it at night. This will help you to feel more comfortable wearing it for longer hours at night.

How long do I need to be on this treatment for?

This is a long term treatment, but most likely you will only need to use the ventilator during the night. However, sometimes you may need it for some hours during the day.

What happens next? How do I get started?

The Specialist Consultant on NIV will see you and decide on whether home non-invasive ventilation is beneficial for you or not.

If this treatment is suitable for you then you will be given an appointment with one of the NIV specialist nurses to set up the machine. You should expect to be there for one hour and a half. In the setting up clinic we may need to do some tests, such as a capillary blood gas. This is a blood sample taken from your ear lobe or your finger to monitor the gases in your blood (CO₂ and oxygen). We may also need to use a device that is called TOSCA and measures your CO₂ with a sticky probe attached to your earlobe, face, arm or chest.

We will try the most appropriate mask for you in clinic and will let you get used to putting it on and off. It is important that on this first visit we find the right mask for you, as this will improve your experience with NIV.

We will adjust the settings on the ventilator and will allow you time to try it on. Breathing may feel strange and uncomfortable at first, and therefore we will adjust the parameters to make it more comfortable for you. We will also monitor your CO₂ to make sure that we are providing enough pressures to improve your ventilation.

We will show you how to turn the machine on and off, how to adjust some of the parameters that are available for you to change (not all of them are). As well as showing you how to care and clean the equipment.

How will I be followed up?

You will continue to have follow-up visits with us during the duration of your treatment.

The initial plan will be as follows:

- 2 weeks into treatment (for patients with chest wall disorders)
- 4 weeks into treatment
- 3 months into treatment
- 6 months into treatment
- Yearly.

If at any point between these visits you are experiencing difficulties you can contact us at any time.

What happens if my machine is faulty or I have technical difficulties?

All ventilators are under warranty and will be serviced by the company. You can phone the following numbers should there be any problems with the machine.

How do I replace consumables?

We will provide you with consumables on the day of your visit and on a yearly basis. If there are any problems with consumables, or if they need replacement sooner please have a look at the contact details provided in this leaflet. We are open 8:00-17:00 Monday to Friday and we do not offer a weekend or out of hours service. Outside of these hours you will need to wait until the next working day to request.

If you are feeling unwell without the ventilator, please attend the Emergency Department.

Our contact details are:

Home NIV Service

Royal Sussex County Hospital,
Eastern Road, Brighton BN2 5BE

For spare consumables (mask, straps, and filters, tubing):

Telephone: **01273 696955 Ext. 64124**

For clinical enquiries:

Mobile: **07780 684714** or **07825 357607**

Alternatively for all enquiries,

Email: uhsussex.homenivservice@nhs.net

**This leaflet is intended for patients receiving care
in Brighton & Hove or Haywards Heath**

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