

# Non-invasive ventilation (NIV)

We have given you this factsheet because it has been recommended that you start non-invasive ventilation (NIV) to help support your breathing. It explains what NIV is, how it works and when to seek further advice. We hope it will help to answer some of the questions you may have. If you have any further questions or concerns, please contact us using the details at the end of this factsheet.

Please read this factsheet alongside the separate NIV device factsheet we have given you.

### What is non-invasive ventilation (NIV)?

NIV is a breathing support treatment for people who have difficulty taking a deep enough breath in or breathing out effectively on their own.

Not breathing effectively can cause the level of carbon dioxide (waste gas) in the blood to increase, making the blood acidic. This increased level of carbon dioxide can be harmful and can cause people to experience:

- morning headaches
- unrefreshing sleep
- · excessive daytime sleepiness

The aim of NIV is to reduce these symptoms by reducing the level of carbon dioxide in the blood and increasing the level of oxygen.

#### How does NIV work?

NIV involves the use of a device, which is made up of three parts:

- a ventilator (machine)
- a mask
- tubes

For more information about your NIV device, please read the separate device-specific factsheet we have given you.

The treatment involves wearing a tight-fitting mask over your nose and mouth that connects via tubes to a machine. As you breathe, the machine works with you by blowing filtered, pressurised air from the room into your mask. This helps to:

- support your airways
- increase the amount of air movement while you breathe
- improve your oxygen levels
- get rid of carbon dioxide from your body

NIV is usually used overnight by people while they sleep. The treatment is most effective when used for a minimum of six hours overnight. However, the amount of time each person will need to use their NIV device will vary. We will discuss this with you in more detail.

If you are unsure why we have given you a NIV device, please contact us and we will be happy to discuss this further with you.

# Are there any alternative treatments?

We understand that NIV can be a challenging treatment option which some people may find hard to tolerate. Before you start NIV, we will discuss alternative treatment options with you.

If you are currently using a NIV device but are struggling to use the machine and/or the mask, please contact us to discuss possible options to improve your experience of NIV or appropriate alternative treatment options.

## Are there any risks or side effects?

NIV is a safe treatment option, which is usually well tolerated by people. However, as with all treatments, there are some possible side effects.

The most common side effects of NIV are:

- slight skin irritation (redness) and discomfort around the mask (please follow the advice in your separate NIV device factsheet about adjusting and fitting your mask)
- bloating or trapped wind (eating or drinking peppermint can help to reduce any discomfort you may experience)

If you experience any of these side effects or any other side effects, contact us for advice using the details at the end of this factsheet.

# What equipment will I need?

We will supply you with all the equipment you will need for NIV.

We recommend that you have a spare of each part of your NIV circuit at home in case of breakage. This will save you having to make urgent trips to the hospital to collect replacements. If you do need to use your spare, contact us to get a replacement as soon as possible.

For more information about replacing your NIV equipment, please see the table on the next page.

Type of equipment	When should I replace it?
Ventilator	If damaged or faulty. Contact our clinical team urgently on <b>023 8120 4416</b> to discuss the problem.
Mask	Most masks are designed to last for six months to a year. You may need to replace the cushion or strap sooner than this.
Tubing	Designed for long-term use. Replace if worn or split.
External filter	Replace every four to six weeks (or when the filter turns dark grey or wet).
Internal filter	See device care sheet for specific information about your device's filters. If you have not received a care sheet for your device, please ask a member of our team.
Oxygen connector (if needed)	Replace if it breaks.
Exhalation valve (if needed)	Replace if it breaks.
Humidifier chamber (if needed)	Replace this if it becomes damaged or if you are no longer able to clean it properly.

If you have any issues or need advice, please contact us using the details at the end of this factsheet.

### **Backup ventilators**

If we have given you a backup ventilator, ensure that you:

- alternate between using your regular ventilator and your backup ventilator (swap between these devices every 28 days to ensure they remain in safe, working order)
- keep your backup ventilator(s) plugged in and on standby to maintain the battery charge

#### **External batteries**

Some devices have internal and/or external batteries. We will give you the appropriate NIV device if you have a condition that means you cannot manage to sleep safely without NIV. If you are unsure if you have been given the right device for your needs, please speak to a member of our team.

If you have a ventilator that has backup battery power, an alarm will sound to let you know if your device is using battery power instead of mains power (for example, in the event that there is a mains power failure).

Please be aware that integrated humidifiers will **not** heat when on battery power. Ensure any devices are kept plugged in and switched on at the plug (mains power) to keep the battery fully charged (this includes any backup devices you may have).

### How do I care for my NIV device?

Take care of your device by following the specific care and maintenance instructions found in the separate NIV device factsheet we have given you.

## Will I be given assistance to use my NIV device?

Although some people will be able to manage using their NIV device by themselves, others may need assistance (for example, help with putting on the mask or turning on the ventilator). If you think you may need assistance, or your needs change in the future and you need more assistance, please let us know.

It is important that you have a safe system in place to call for help if you cannot get your mask off by yourself (especially in an emergency).

#### When should I seek medical advice?

If you are finding that you are needing to use your ventilator more than 12 hours in a 24-hour period regularly (and you have not been advised by us to use NIV for 24 hours a day), contact us for advice.

Please also contact us if you experience an increase in any of the symptoms below or have any questions regarding them:

- early morning headaches (that usually clear quickly once awake)
- increased daytime sleepiness
- unrefreshed sleep and/or a feeling of 'brain fog' or being 'fuzzy-headed'

If you are feeling unwell but do not have the symptoms above, contact your general practitioner (GP) or call NHS **111** for advice.

If you become very unwell and need to go into hospital for treatment, please remember to take your ventilator and any associated equipment with you.

### What follow-up care will I receive?

You will be under the care of the home ventilation service while you are using NIV. We will arrange regular appointments to see you in our clinic. At these appointments, you may meet with members of our multidisciplinary team and/or our physiotherapy and specialist nursing team. Please refer to your appointment letter(s) for more details.

If we ask you to come in for an appointment to see us, please remember to bring your NIV device with you so that we can perform a full assessment and also ensure that your machine is in good working order.

#### Contact us

If you have any further questions or concerns, please contact us.

#### Home ventilation team

For general enquiries (including ordering or reporting issues with equipment, concerns regarding ventilation or change in symptoms):

Telephone: **023 8120 4416** (Monday to Friday, 8am to 4pm)

- Please leave a message with your name, hospital number and date of birth.
- This mailbox is checked regularly.

Email: HomeNIVClinician@uhs.nhs.uk

For appointment enquiries:

Telephone: **023 8120 2617** (Monday to Friday, 8am to 4pm)

Email: NIVAdmin@uhs.nhs.uk

For urgent equipment-related queries outside of these working hours, please call our switchboard on **023 8077 7222** and ask for the 'adult respiratory ventilator service'.

Useful links www.hmvip.co.uk

If you are a patient at one of our hospitals and need this document translated, or in another format such as easy read, large print, Braille or audio, please telephone **0800 484 0135** or email **patientsupporthub@uhs.nhs.uk** 

For help preparing for your visit, arranging an interpreter or accessing the hospital, please visit www.uhs.nhs.uk/additionalsupport

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