

## Respiratory department

# Non-invasive ventilation (NIV)

## Information for patients, relatives and carers

### Introduction

This leaflet explains what non-invasive ventilation (NIV) is and what the treatment involves. We hope it will answer some of the questions that you or those who care for you may have. This leaflet is not meant to replace the consultation between you and your medical team, but aims to help you understand more about what is discussed. Please do not hesitate to speak to the doctor, nurse or physiotherapist if you have further questions.

### What is NIV?

NIV is a machine that helps you breathe when you have a breathing problem. The machine does not breathe for you but offers gentle help with each breath you take.

NIV is a common treatment used mainly for people with chronic lung conditions, such as chronic obstructive pulmonary disease (COPD) and may occasionally be used in some other conditions when your breathing worsens.

### Why do I need NIV?

Having a chronic lung condition can sometimes make taking a breath hard work and cause your breathing muscles to get tired. This can lead to high levels of carbon dioxide (waste gas) in your blood and not enough oxygen. NIV supports your breathing, giving your breathing muscles a rest and removing the carbon dioxide.

Before starting NIV you may receive oxygen and nebulisers (and antibiotics if needed). The doctor will then discuss your treatment plan.

NIV can be uncomfortable so please talk about the treatment and what it involves to decide whether or not it is right for you. If you decide to begin NIV, you can stop the treatment at any time in discussion with your doctor.

### What does NIV involve?

If you would like to try NIV, we will fit a tight mask to your face, over your nose and mouth (and sometimes eyes). It will be held in place with straps around your head. This mask will connect via tubing to the machine.



"Good effect and helped with my breathing. I now know the benefit of having it" Patient Experience, 2017

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We will ask you to breathe as normally as possible and with each breath, the machine will provide air into your lungs at a set pressure. As you breathe out you will notice a little resistance. This is to help keep your lungs open.

## Are there any side effects involved in having NIV?

NIV can lead to the breakdown of the skin where the mask sits. It can also:

- cause bloating if air goes into your stomach
- cause dry mouth and eyes
- affect your blood pressure

The following can help to reduce these side effects:

- padding around the mask
- a thin tube through your nose to your stomach to remove the air
- regular mouth care
- changing the machine settings

Please let your nurse, doctor or physiotherapist know if you are experiencing any of these side effects.

## Are there any alternative treatments?

NIV can often avoid the need for a breathing tube and a ventilator in the intensive care unit. If you start NIV and it does not reduce your carbon dioxide levels, the intensive care team may review you.

Some people may not wish to even try NIV, may not like wearing the mask or may wish to stop their NIV treatment before their blood gases improve. We can make a referral to the palliative care team for you if you wish. The palliative care team can help to ensure your breathing remains comfortable on and off the machine with the use of medications.

## What investigations will I need before starting NIV?

Before starting and whilst you are on NIV, we will take blood tests from your wrist (called an arterial blood gas). This checks the oxygen and carbon dioxide levels in your blood and helps the doctor, nurse and physiotherapist to check your progress and adjust the machine settings.

If needed, we may ask if we can insert an arterial line into your wrist. This stays in your wrist for a number of days and means you do not need repeated needles to take the blood gas.

## How will I be monitored while having NIV?

Once on NIV we will look after you in a designated NIV area within the hospital. These areas can often be busy and noisy due to different monitors and alarms.

We will place a probe on your fingertip to measure your oxygen levels. A nurse will be with you for a short time to make sure you are as comfortable as possible. We will monitor your blood pressure and heart rate every hour.

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A team of doctors, nurses and physiotherapists will look after you and be available if you have any problems or questions. You will be able to discuss your treatment with a doctor when you need to and we encourage staff to remove the mask to make it easier for you to talk.

## How long will the treatment last?

On average, NIV treatment lasts three days but this varies from person to person. Occasionally, some people may need to go home with NIV overnight.

For the first 24 hours, you will have the mask on continuously but will have short breaks to be able to eat, drink and take your medications. You may need some help from the nurses to get up to use the toilet. You can sleep with the mask on.

On the second and third day of treatment, you will hopefully be able to have more time off the mask as you start to get better.

If you feel you need to take the mask off, you should call for help using your call bell by your bedside table and wait for help from one of the nurses or doctors looking after you.

## Will I need NIV again in the future?

Although NIV benefits people with chronic lung conditions, you may have further episodes of lung failure in the future.

There is a high possibility that you may be readmitted to hospital to have NIV again. When you are readmitted and when being discharged, you should speak to your doctor about your thoughts on having NIV treatment in the future.

You will see a respiratory specialist in hospital following your time on NIV. They will provide information about who to contact after you've been discharged if your breathing gets worse again.

## Relevant support groups, further information and contact details

You can ask any doctor, nurse or physiotherapist involved in your care either while you are in hospital or during a follow-up appointment about relevant support groups.

Dr Susannah Bloch (Acute NIV lead Consultant)

Find your local Breathe Easy support group at: [www.blf.org.uk/support-for-you/breathe-easy](http://www.blf.org.uk/support-for-you/breathe-easy)

NIV patient information video (add in link)

More information on chronic lung disease can be found on the British Lung Foundation's website or in one of their leaflets: [www.blf.org.uk](http://www.blf.org.uk)

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## How do I make a comment about my visit?

We aim to provide the best possible service and staff will be happy to answer any of the questions you may have. If you have any **suggestions** or **comments** about your visit, please either speak to a member of staff or contact the patient advice and liaison service (**PALS**) on **020 3313 0088** (Charing Cross, Hammersmith and Queen Charlotte's & Chelsea hospitals), or **020 3312 7777** (St Mary's and Western Eye hospitals). You can also email PALS at [pals@imperial.nhs.uk](mailto:pals@imperial.nhs.uk). The PALS team will listen to your concerns, suggestions or queries and is often able to help solve problems on your behalf.

Alternatively, you may wish to express your concerns in **writing** to:

Complaints department  
Fourth floor  
Salton House  
St Mary's Hospital  
Praed Street  
London W2 1NY

## Alternative formats

This leaflet can be provided on request in large print, as a sound recording, in Braille, or in alternative languages. Please contact the communications team on **020 3312 5592**.

## Wi-fi

We have a free wi-fi service for basic filtered browsing and a premium wi-fi service (requiring payment) at each of our five hospitals. Look for WiFiSPARK\_FREE or WiFiSPARK\_PREMIUM