



PATIENT INFORMATION

**NON-INVASIVE VENTILATION (NIV)
INFORMATION SHEET FOR PATIENTS
AND VISITORS**



The aim of this leaflet is to provide information on NIV (Non-Invasive Ventilation) - what it does and why it is used. It may be helpful for patients and their relatives, carers and friends.

If there is anything you are unsure of, please speak to one of the nurses, doctors or physiotherapists looking after you and they will be able to answer further questions or queries you may have.



What is NIV?

Non-invasive ventilation is a way of helping you to breathe more deeply by blowing extra air into your lungs via a mask. If your breathing becomes difficult and your chest muscles tire it can lead to a build-up of carbon dioxide and not enough oxygen getting into your blood.

The NIV machine supports your breathing (It does not breathe for you), by gently assisting each breath you take. This allows you to rest your breathing muscles, giving them time to recover. By assisting your breathing, NIV can increase the oxygen levels and decrease the carbon dioxide levels in your blood.

How does NIV work?

People receiving NIV need to wear a cushioned mask which is connected to a machine. The mask either fits over your nose alone, or over both the nose and mouth.

As you take a breath in you will feel a flow of air and oxygen into your lungs from the machine. As you breathe out there will be a small amount of air / resistance to help keep your lungs open. This continual positive pressure helps to 'splint' the airways open, enabling more air to get in and out of the lungs. It also helps you to take bigger breaths with less effort therefore helping you to rest your tired respiratory muscles.

How do you know if I need NIV?

You will have a blood sample taken from an artery (usually in your wrist) to accurately measure your Oxygen and Carbon dioxide levels. Whilst poor levels of oxygen can be treated by providing extra oxygen, (either by nasal cannula or a mask), high carbon dioxide levels will require NIV to help get rid of the carbon dioxide and to rest the respiratory muscles.

If the carbon dioxide levels in your blood are too high, making you drowsy or unwell, then it may be decided that NIV should be trialled.

What happens during NIV?

The physiotherapist will set the machine up and make sure that you are as comfortable as possible. You will need to wear a special type of facemask, which fits snugly over your nose and mouth. The machine will be set specifically for your needs.

NIV can feel a bit strange or even uncomfortable at first, but most patients adjust quickly, and as it supports your breathing it often allows patients to relax and get some sleep.

Each machine is set up specifically for the patient it is being used on so the amount of oxygen and strength of support you will receive may vary. You will be fitted with a mask which is attached by a head strap that keeps the mask in place. The mask has to be applied firmly to make sure enough air from the machine goes into your lungs without too much leaking from the mask.

For the first 24hrs, you will be encouraged to wear the mask as much as possible, but it can be removed for short periods to enable you to eat and drink as normal and for you to take your medicines. (Nebulisers can be given through the NIV machine if needed).

To monitor your progress, a peg-like probe will be placed on your finger to measure the oxygen level in the blood. A blood test will also be taken from your wrist after the first hour to check your oxygen and carbon dioxide levels. This will usually be repeated after 4 and then 12 hours on NIV.

Will I feel any pain?

Wearing the NIV mask should not cause you any pain. Although the mask should be a snug fit, it is important that the head straps are not too tight as this can cause some discomfort over the bridge of your nose. If this happens, please let us know as soon as possible.

Will I be able to eat and drink during NIV?

After the first few hours, you will be able to have regular breaks from the mask and will be able to eat and drink as normal. The staff will help you with this.

Will I be able to clear my phlegm?

You will be given breaks, whenever needed, to clear your secretions and to use a nebuliser, if necessary. Please tell a nurse if you have phlegm that you need to clear. A physiotherapist can assist you with this if you are struggling to clear it yourself.

Will I need to stay in bed?

When you first start the NIV, we will ask you to sit upright in bed. When you start to feel better the staff can help you to sit in a chair.



Why does the machine's alarm keep sounding?

Usually this is because there is too much air leaking from the sides of your mask. It is nothing for you to worry about and the staff will try to address the problem by refitting or changing the mask so it is more comfortable for you.

What if I need help?

You will be given a call bell and the nursing staff will check on you frequently, so there will be plenty of opportunity to discuss any problems you are having

How long do I need it for?

The length of time that you need to use NIV depends on how quickly the oxygen and carbon dioxide levels in your blood improve.

For the first 24 hours you will be required to wear the NIV mask as much as possible. After this we will start to give breaks off the machine in the daytime (you may be given nasal oxygen instead), and then back on the machine at night. The amount of time spent off the machine will be lengthened according to how well you are coping. This may take a couple of days or a few weeks depending on the severity of your illness and the rate at which you recover...remember that everybody is different.

Sometimes, after stopping NIV, the CO₂ may rise again. If this is the case then the NIV may be restarted. In some cases it may be recommended that you have a NIV machine at home to help prevent further episodes. – This will be discussed with you if necessary.

If your symptoms or condition worsens, or if you are concerned about anything, please call your GP, 111, or 999.

Patient Experience

We know that being admitted to hospital can be a difficult and unsettling time for you and your loved ones. If you have any questions or concerns, please do speak with a member of staff on the ward or in the relevant department who will do their best to answer your questions and reassure you.

Feedback

Feedback is really important and useful to us – it can tell us where we are working well and where improvements can be made. There are lots of ways you can share your experience with us including completing our Friends and Family Test – cards are available and can be posted on all wards, departments and clinics at our hospitals. We value your comments and feedback and thank you for taking the time to share this with us.

Patient Advice and Liaison Service (PALS)

If you have any concerns or questions about your care, we advise you to talk with the nurse in charge or the department manager in the first instance as they are best placed to answer any questions or resolve concerns quickly. If the relevant member of staff is unable to help resolve your concern, you can contact the PALS Team. We offer informal help, advice or support about any aspect of hospital services & experiences.

Our PALS team will liaise with the various departments in our hospitals on your behalf, if you feel unable to do so, to resolve your problems and where appropriate refer to outside help.

If you are still unhappy you can contact the Complaints Department, who can investigate your concerns. You can make a complaint orally, electronically or in writing and we can advise and guide you through the complaints procedure.

How to contact PALS:

Telephone Patient Services: 0300 123 1732 or via email at: wah-tr.PET@nhs.net

Opening times:

The PALS telephone lines are open Monday to Thursday from 8.30am to 4.30pm and Friday: 8.30am to 4.00pm. Please be aware that a voicemail service is in use at busy times, but messages will be returned as quickly as possible.

If you are unable to understand this leaflet, please communicate with a member of staff.