

# **Acute non-invasive ventilation (NIV)**

## **The treatment explained**

**This leaflet explains more about acute non-invasive ventilation (NIV), including the benefits, risks, any alternatives and what you can expect when you come to hospital.**

**If you have any further questions, please speak to a doctor, nurse or physiotherapist caring for you.**

### **What is NIV?**

Non-invasive ventilation (NIV, or 'mask ventilation') is a way of helping you to breathe more deeply by blowing extra air into your lungs via a mask when you breathe in. This supports your breathing, rests your breathing muscles and gives you time to recover. By assisting your breathing, NIV can increase the oxygen levels and decrease the carbon dioxide levels in your blood.

### **Why should I have NIV?**

When we breathe in, we take oxygen out of the air to keep us alive. The body uses oxygen to make energy and produces carbon dioxide as a waste product, which we breathe out.

When you experience a flare up of your breathing problem, such as a chest infection, breathing becomes harder work and your muscles get tired. Your body may not be able to take in enough oxygen and you might get a build up of the waste gas, carbon dioxide.

### **What are the risks?**

There are few risks associated with NIV. Some people do get sore skin on the bridge of their nose due to the mask, but we can use a special foam to help prevent this.

### **Are there any alternatives?**

An alternative treatment is sedation and a life support breathing machine. This procedure carries more risk than NIV. It is unlikely that the oxygen and carbon dioxide levels in your blood will return to normal quickly without any form of treatment.

### **What happens during NIV?**

NIV can feel strange at first, but most patients adjust quickly, and as it supports your breathing it often allows patients to relax and get some sleep. 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. At the start, you will be encouraged to wear the mask as much as possible.

## **Will I feel any pain?**

Wearing the NIV mask will not cause you pain, but it may cause you 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 have a drink and eat as normal. The staff will help you with this.

## **Will I be able to clear my phlegm and sputum?**

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, if you prefer.

## **Why does the machine keep alarming?**

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 so that it stops alarming and bothering you.

## **What if I need help?**

You will be given a call bell and the staff will be nearby to assist or reassure you as needed. The mask can be removed easily and quickly.

## **Where will I receive this treatment?**

We can set up mask ventilation wherever you are in the hospital – when you arrive at A&E, for example, or on the ward if you are already in hospital. When we start NIV, we will move you to our High Dependency Unit (HDU), Lane Fox Respiratory Unit or Intensive Care Unit, depending on bed availability. We need to monitor you closely whilst you are receiving NIV.

## **What happens after NIV and what do I need to do after I go home?**

Your doctor will discuss your treatment with you. The length of time that you need to use mask ventilation depends on how quickly the oxygen and carbon dioxide levels in your blood improve. Most people stay on NIV for a couple of days, but everyone is different. You will be taken to one of our wards prior to going home and the ward team there will discuss your ongoing care and answer any questions you may have. A few patients will need to continue on NIV at home – this will be discussed with you if necessary. You will also be given an outpatient appointment to attend clinic at a later date so that we can make sure you are receiving the correct aftercare.

## **Useful sources of information**

- **British Thoracic Society**  
[www.brit-thoracic.org.uk/](http://www.brit-thoracic.org.uk/)
- **British Lung Foundation**  
[www.blf.org.uk/Home](http://www.blf.org.uk/Home)

## Appointments at King's College Hospital

We have teamed up with King's College Hospital in a partnership known as King's Health Partners Academic Health Sciences Centre. We are working together to give our patients the best possible care, so you might find we invite you for appointments at King's College Hospital rather than St Thomas' or Guy's hospitals. To make sure everyone you meet always has the most up-to-date information about your health, we will have to share information about you between the hospitals.

If you have any questions please do not hesitate to ask any of the people involved in your care. They will be happy to help you.

### Contact us

If you have any questions or concerns about non-invasive ventilation, please contact Sarah Keilty (consultant physiotherapist for NIV) on **020 7188 3372** (please note that this is a voicemail service, and someone will call you back as soon as they can). Alternatively, you can send an email to **sarah.keilty@gstt.nhs.uk**

For more information leaflets on conditions, procedures, treatments and services offered at our hospitals, please visit [www.guysandstthomas.nhs.uk/leaflets](http://www.guysandstthomas.nhs.uk/leaflets)

### Pharmacy Medicines Helpline

If you have any questions or concerns about your medicines, please speak to the staff caring for you or call our helpline.

**t:** 020 7188 8748 9am to 5pm, Monday to Friday

### Patient Advice and Liaison Service (PALS)

To make comments or raise concerns about the Trust's services, please contact PALS. Ask a member of staff to direct you to the PALS office or:

**t:** 020 7188 8801 at St Thomas'    **t:** 020 7188 8803 at Guy's    **e:** [pals@gstt.nhs.uk](mailto:pals@gstt.nhs.uk)

### Language Support Services

If you need an interpreter or information about your care in a different language or format, please get in touch using the following contact details.

**t:** 020 7188 8815    **fax:** 020 7188 5953

### NHS 111

Offers medical help and advice from fully trained advisers supported by experienced nurses and paramedics. Available over the phone 24 hours a day.

**t:** 111

### NHS Choices

Provides online information and guidance on all aspects of health and healthcare, to help you make choices about your health.

**w:** [www.nhs.uk](http://www.nhs.uk)