

## Peri-Operative and Critical Care Directorate

# Tracheostomy

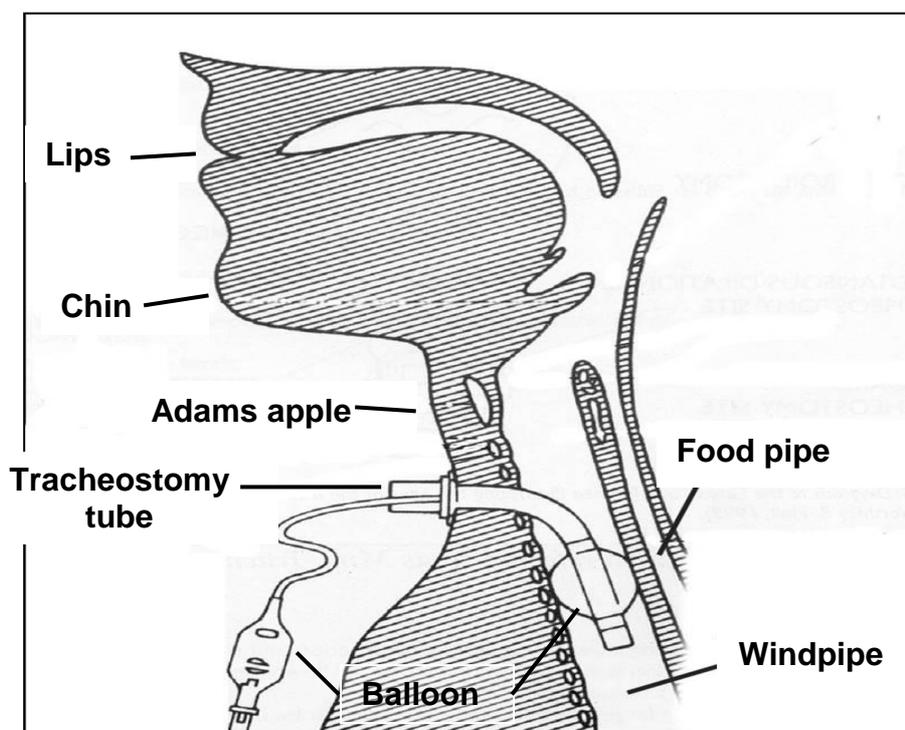
## Introduction

The aim of this leaflet is to provide simple information and advice about tracheostomy use within critical care. Please do not hesitate to ask a member of staff if you have any questions

Many patients on the Critical Care Unit need a ventilator (breathing machine) to help with their breathing. This is usually done using a plastic tube (endo-tracheal tube) which passes through the mouth and throat into the windpipe (trachea) and allows the ventilator to blow air into the lungs.

## What is a tracheostomy?

A tracheostomy is a hole in the front of the neck into the windpipe. A tracheostomy tube is then inserted through the hole. The patient can then breathe on his or her own, or be ventilated through the tube.



## Why does my relative need a tracheostomy?

**There are a number of reasons why a tracheostomy may be beneficial:**

- A tracheostomy tube is far more comfortable than a tube in the mouth. Most patients with a tracheostomy require little or no sedation. This means that they can be more awake, more comfortable and may allow them to breathe for themselves at an earlier stage. This may reduce the time attached to a ventilator.
- A tube in the mouth can cause physical damage to the delicate structures through which it passes, including the voice box (larynx), leading to problems later on with speaking. A tracheostomy tube is inserted below the voice box and this is potentially less damaging.
- The nurse looking after your relative will be able to clean his / her mouth properly, reducing the risk of infections.
- Nursing staff and relatives may be able to understand communication better by lip reading. Some tracheostomies can allow speech as a patient improves and needs less help from the breathing machine (weaning).
- Secretions lying on the chest that can block the flow of air and cause chest infections can be removed more easily by sucking them out through the tracheostomy tube.

## Is it safe? Are there any risks?

Generally speaking, a tracheostomy is safe, but, like any procedure, there are some risks. Every effort will be made to minimise the risk of these complications occurring. Most of the complications are minor and of no great significance. However, very occasionally, a severe complication may arise which may necessitate intervention.

The major risks associated with the procedure are:

- **Bleeding.** The front of the neck contains several blood vessels which may bleed during the formation of a tracheostomy. These can usually be dealt with very simply, but occasionally require a surgical operation in the operating theatre. In extreme circumstances a blood clot could block the airway and need an emergency procedure to remove it.
- **Lung function.** A few patients can result in a worsening of lung function after the procedure is complete. Usually this recovers within a couple of hours. A more serious complication can occur called a pneumothorax. This is when air is in the chest but outside the lung, causing the lung to collapse. It usually requires a drain to be placed through the skin between the ribs and into the chest.
- **Narrowing of the trachea.** Patients who have had a tracheostomy are potentially at risk from developing scarring of the inside of the trachea, which can lead to narrowing called tracheal stenosis. Usually this causes the patient no problem. Very rarely, patients with tracheal stenosis develop noisy breathing as the air passes through the narrowed part of the trachea and this may require referral to an Ear, Nose and Throat surgeon for investigation and treatment. Very rarely this might include significant surgery to the windpipe. However, this can also occur with a normal breathing tube (ET tube). You will have the opportunity to speak to a doctor about the benefits and risks of a tracheostomy in more detail before the procedure is performed.

## Where will my tracheostomy operation be performed and who will do it?

Most tracheostomies can be performed in the Critical Care Unit, but occasionally they may be carried out in the operating theatre. This will happen if we think the shape of the neck will make the procedure particularly difficult, or if the patient is at high risk of bleeding (but still needs the operation) or if we want to do the operation in a different way. We may also go to theatre if we think the tracheostomy will be permanent or the patient needs another operation, so we will perform the tracheostomy operation at the same time.

The operation is carried out by two doctors. One is an anaesthetist who will ensure the patient is asleep, comfortable and safe. If the operation is to be done on the Critical Care Unit, it will be performed by one of the Critical Care Unit Doctors, whom you may have met. If the operation is to be done in theatre then an Ear, Nose and Throat (ENT) surgeon or a Maxillo-Facial surgeon will perform the operation.

## Is it painful?

During the operation the patient will be under a general anaesthetic. Local anaesthetic is also inserted into the area at the front of the neck and windpipe to make it numb and painless. After the operation as the anaesthetic wears off, your relative may feel some mild discomfort and soreness in the throat, additional painkillers will be given as required.

## Can my relative speak with a tracheostomy?

Not normally. Their lips will move, but usually you will not hear any sounds. This is because a balloon is inflated around the tracheostomy which prevents any air going up past the tracheostomy and through the voice box, thereby allowing the ventilator to work effectively.

As your relative improves and requires less support from the ventilator, the doctors and nurses may deflate this balloon as part of the process of weaning off the ventilator and this may allow you're relative to produce some sounds.

Occasionally, the tracheostomy may be changed to a special type of tube which can help with speech if it looks like your relative may need the tracheostomy for a longer period of time. This is not possible for all patients; it depends on the condition of the individual.

## What happens afterwards?

Most tracheostomies inserted in patients in the Critical Care Unit are temporary and removed when no longer required. This may be before or after the patient leaves the Critical Care Unit. The tracheostomy is usually removed sometime after the patient is off the ventilator, but is sometimes left in longer especially if the patient is sleepy, or has difficulty in getting rid of chest secretions.

After the tracheostomy tube is removed, a dressing is applied to the hole and secured with tape. The hole will usually close fairly quickly, and within a week to ten days after removal, the hole will have sealed off, leaving only a small scar.

## For further information

Please contact the Sister or Charge Nurse by telephone at any time:

- Ward 21 Cardiothoracic Critical Care, Freeman Hospital 0191 213 7021
- Ward 37 Integrated Critical Care, Freeman Hospital 0191 213 1176
- Ward 18 Critical Care (Neurological), Royal Victoria Infirmary 0191 282 6018
- Ward 38 Critical Care, Royal Victoria Infirmary 0191 282 4616

The Patient Advice and Liaison Service (PALS) can offer on-the-spot advice and information about the NHS. You can contact them on Freephone 0800 032 02 02 or e-mail

[northoftynepals@nhct.nhs.uk](mailto:northoftynepals@nhct.nhs.uk)

## Useful websites

[www.nhs.uk/conditions/Tracheostomy/Pages/Introduction.aspx](http://www.nhs.uk/conditions/Tracheostomy/Pages/Introduction.aspx)

[www.tracheostomy.org.uk](http://www.tracheostomy.org.uk)

[www.globaltrach.org](http://www.globaltrach.org).

If you would like further information about health conditions and treatment options, you may wish to have a look at the NHS Choices website at [www.nhs.uk](http://www.nhs.uk). On this website there is an information prescription generator [www.nhs.uk/ips](http://www.nhs.uk/ips) which brings together a wealth of approved patient information from the NHS and charity partners which you may find helpful

**This leaflet is available in alternative formats on request**

Information amended by Liz Place with permission by South Tees Hospitals NHS Foundation Trust

Date: 01 September 2016

Review date: September 2018