

## Head and Neck CNS and Physiotherapy

# Tracheostomy and the weaning process

A tracheostomy is an artificial opening (stoma) below the larynx (voice box) into your trachea (windpipe). A surgical incision is made into your trachea, creating an airway which allows you to breathe. This procedure is called a tracheostomy. A curved tube (called a tracheostomy tube) is then inserted through the opening into the trachea to help you breathe.

### **Most common reasons for a tracheostomy:**

- Upper airway obstruction
- During head and neck surgery
- To assist in artificial ventilation

The need for a tracheostomy will depend on your individual needs, but may be performed either in an emergency, or as part of a planned process such as head and neck surgery.

### **Head and neck surgery**

If you need a tracheostomy because you are having surgery to the head and neck, this will usually be removed after the swelling from the surgery site has reduced, and your consultant is happy for the tube to be removed.

Tracheostomy weaning is the process whereby you will be assessed and progressed with your breathing, with the end goal of the tracheostomy being removed and you are able to breathe unaided.

The flowchart demonstrates the stages which you would be expected to complete.

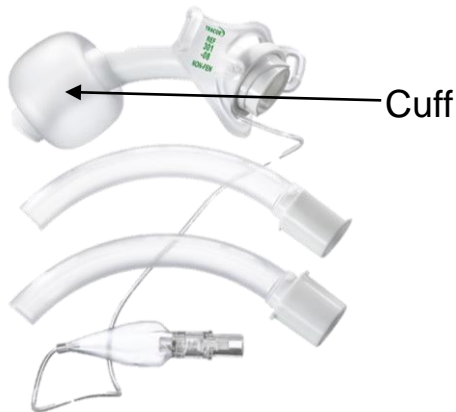


## Patient Information

### Process of tracheostomy weaning

Immediately after your operation, you would have returned to the ward with a tracheostomy inserted as part of your operation. The cuff would be up to facilitate your breathing and the tracheostomy tube's dimensions would be bigger initially. You would be on the Airvo (humidifier that delivers high flow moist and warmed oxygen) to support increased oxygen demands.

#### Step 1



Traceo Twist with Cuff

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Your physiotherapist will review your chest:

- Complete deep breathing exercises.
- Manage your secretions.
- Aim to reduce oxygen requirements.

Additionally, they will review:

- your neck and shoulder range of movement.
- your mobility and aim to help you sit out in the chair.

The nurses will also help with trachy care and can also help you to mobilise and do suctioning if needed.

## Patient Information

### Step 2

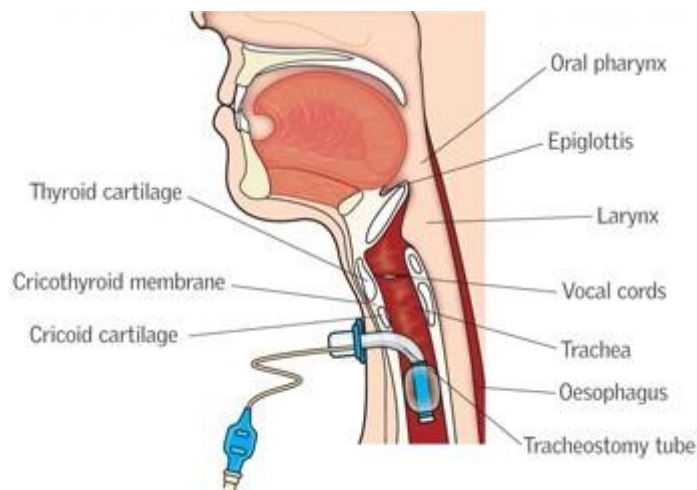


Image courtesy of The Royal Children's Hospital, Melbourne

If your oxygen saturations are good and you have minimal sputum, the next progression will be to deflate the cuff of the tracheostomy. This will allow you to breathe past the tracheostomy and encourage normal breathing.

### Step 3

As your oxygen requirements decrease, you will be progressed off the Airvo to the Heat-Moisture Exchanger (a special foam which traps heat and moisture when you breathe out), which will be placed over your tracheostomy. This must be removed when you cough to clear your phlegm.



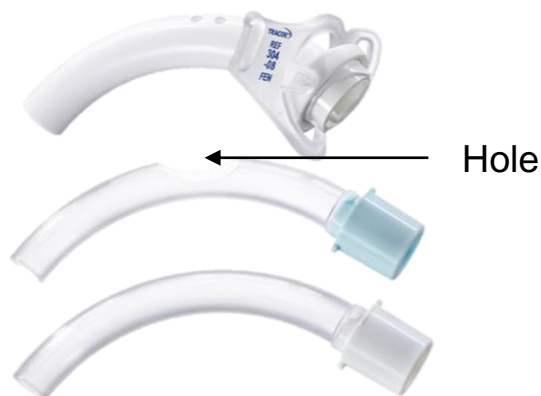
Example of Heat-Moisture Exchanger

## Patient Information

### Step 4

Your consultant will decide if your tracheostomy tube needs to be downsized to a small tube and changed to one with a fenestrated (hole) inner tube similar to the picture on the left.

This will help to facilitate the tracheostomy weaning process as you can get airflow through the hole in the inner tube.



Traceo Twist with Fenestration

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### Step 5

Your physiotherapist will review your breathing and coughing ability again. If you are coping well, they might temporarily occlude your tracheostomy with a finger to see if you can breathe past the tube through your nose.

If you manage this step, the next progression would be to place a cap over your tracheostomy and monitor if you can manage your breathing without the tracheostomy over the next few hours.

### Step 6

If you complete everything above, the doctor will remove your tracheostomy.

You will have a dressing placed over the wound, which you need to cover when you speak or cough.

## Patient Information

Please note that some intermediate steps can be skipped if you are progressing well, but the end goal will always be tracheostomy decannulation (removal).

Throughout the process, physiotherapist, ward staff and consultants work alongside each other to manage your care. You may require nebulisers to assist with chest clearance if your secretions are thicker and harder to cough up.

If there is a need for the tracheostomy to remain in place for a longer period, this will be discussed with you by your consultant.

### Communication

Whilst you have a tracheostomy tube in place you will probably find it difficult to speak. The voice is normally produced when air passes through the larynx (voice box), causing the vocal cords to vibrate and creating a sound. The tracheostomy prevents this vibration because the tube sits below your larynx (voice box) and stops air from flowing through the voice box.

Whilst the tracheostomy tube is in place, you may need to use other methods of communication such as writing, mouthing words or a communication picture chart. Depending on your needs, you will be referred to the speech and language therapist.

### Head and Neck support team

If you require any further information or advice after reading this leaflet, don't hesitate to contact the Head and Neck Support Team:

Macmillan Head & Neck Clinical Nurse Specialist

**Tel: 024 7696 6452**

Surgery Physiotherapy

**Tel: 024 7696 5638**

## Patient Information

The Trust has access to interpreting and translation services. If you need this information in another language or format, please contact the head and neck support team on 024 7696 6452 and we will do our best to meet your needs.

The Trust operates a smoke free policy.

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The “Heat-Moisture Exchanger” image was taken at UHCW NHS Trust.

Document History	
Department:	Head and Neck and Physiotherapy
Contact:	26452, 25638
Updated:	March 2023
Review:	March 2025
Version:	1
Reference:	HIC/LFT/2709/22