

Speech and language therapy service  
Charing Cross, Hammersmith and St Mary's hospitals

# Changes to your breathing after laryngectomy surgery

## Information for patients

### Introduction

This leaflet explains how your breathing is affected after laryngectomy surgery and how to look after your lungs. Please ask your speech and language therapist or clinical nurse specialist if you have any questions.

### How will the surgery affect my breathing?

The air we breathe in is colder and drier than we realise. Before surgery, air is filtered, warmed, and moisture is added by the nose and mouth before it reaches the lungs. This 'air conditioning' process is called humidification and is an important part of normal breathing because it helps your lungs to work at their best.

After surgery, you will lose your natural humidification system because you will breathe through the neck stoma instead of the nose and mouth. Breathing through the stoma allows cold, dry, and unfiltered air into the lungs. This dries the windpipe and makes your mucus thick and sticky which can clump together into hard lumps called 'mucus plugs'. Large plugs can block the windpipe and seriously affect your breathing. Cold dry air also irritates the lungs and causes more mucus to be produced. This increases the risk of infection and you may be more likely to get chest infections.

### What can I do to help look after my lungs?

It is important to wear a specialist cover over your stoma at all times, when you are indoors and outdoors, during the day and at night. Stoma covers are sometimes called 'heat and moisture exchangers' or HMEs for short. There are a variety of HMEs ranging from simple foam protectors to newer and more specialist devices.

### How does a HME work?

A HME is a device worn over your neck stoma that acts as an artificial humidification system. As you breathe out, the foam in the device absorbs the air from your lungs which then warms and moistens the air you breathe in. The foam also acts as a filter to help protect the lungs from particles in the air such as dust, bacteria and pollen. The best type of HME is a cassette which fits into a baseplate, laryngectomy tube or a laryngectomy button. Cassettes must be placed in these and never directly over the stoma as they may fall into the windpipe causing you to choke.



Source: Macmillan Cancer Support

---

## What are the benefits of wearing a HME cassette?

HME cassettes are clinically proven to be the most efficient humidification devices after laryngectomy. To get the best results, you should wear a HME cassette 24 hours a day or for as long as you can. Some of the short- and long-term benefits of using a HME cassette are:

- reduced amount of thick or dried 'crusty' mucous collecting inside the stoma
- less frequent need to cough out mucous and clean the stoma
- more hygienic when touching the stoma to speak
- reduced risk of chest infection
- improved sleep and quality of life
- increased energy levels and reduced fatigue due to better lung function

## What are the disadvantages of wearing a HME?

There are no disadvantages to using a HME cassette. Some people find inserting and removing the cassette difficult at first, but this becomes easier with practice. The inside of the cassette can sometimes get covered with mucous when you cough which may affect your breathing. Try to remove the cassette before coughing and wipe away any mucous left around the stoma before putting the cassette back in.

A small number of people find that using a cassette can interfere with their speaking. This can often be improved with technique or changing the cassette for a different type. In the long-term, most people find using a HME cassette helps with speaking and that the benefits outweigh the disadvantages.

## How often should I change the cassette?

The foam in the cassette has been specially treated and cannot be washed. They should be replaced every 24 hours or sooner if they are visibly dirty. There are a variety of cassettes available including some that are better for people who have specific breathing problems and others that are designed for use during certain activities such as sleeping or exercising. You may need more than one type of cassette depending on your needs. Your speech and language therapist will help you choose the right ones for you.

## What if I find it more difficult to breathe with the cassette?

It is normal to feel a little extra effort to breathe in when you first start using a HME cassette. This is called 'breathing resistance' and is a natural part of maintaining lung strength and keeping the lungs open. Although it may feel different at first, it is usually no different to the amount of effort you used before surgery to breathe through the nose and mouth. Most people adapt to the breathing resistance over time.

If you are finding it too difficult to breathe with the HME cassette, speak to your speech and language therapist. You may benefit from a different type of cassette that is easier to breathe through, or a more gradual approach to build up the amount of time you can wear it. If you are very physically active or would like to return to exercise after surgery, you may benefit from using a cassette with a lower resistance to help you breathe more easily during these times. We will work with you to find the best solution for your needs.

---

## Go to your nearest A&E immediately or ask someone to call 999 for you if:

- you are having difficulty breathing
- your breathing sounds noisy
- your breathing does not improve after removing the HME cassette
- your stoma gets smaller and you are finding it difficult to breathe

## How do I order the cassettes when I leave hospital?

Before you go home, the speech and language therapist will advise you about the products you need. HME cassettes are available on prescription free of charge to NHS patients and can be supplied by a pharmacy, GP or specialist home delivery company. There is a separate leaflet called *Consent to register with a third party supplier for stoma products* which we can give you that explains more.

## Who should I contact with any questions or concerns?

If you have any questions please contact the speech and language therapy service on **020 3311 0333** or email [imperial.lary@nhs.net](mailto:imperial.lary@nhs.net)

## 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 **imperial.pals@nhs.net**. 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 complain by contacting our complaints department: Complaints department, fourth floor, Salton House, St Mary's Hospital, Praed Street, London W2 1NY.

Email: **ICHC-tr.Complaints@nhs.net**

Telephone: **020 3312 1337 / 1349**

## Alternative formats

This leaflet can be provided on request in large print or easy read, as a sound recording, in Braille or in alternative languages. Please email the communications team:

**imperial.patient.information@nhs.net**

## Wi-fi

We have a free and premium wi-fi service at each of our five hospitals. For further information please visit our website: [www.imperial.nhs.uk](http://www.imperial.nhs.uk)

Speech and language therapy service

Published: June 2018

Review date: June 2021

Reference no: 2875

© Imperial College Healthcare NHS Trust