

Having a one-way valve after laryngectomy



Information for patients

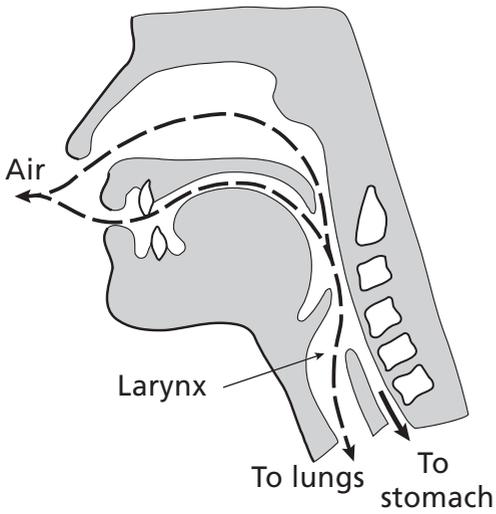
Speech and Language Therapy



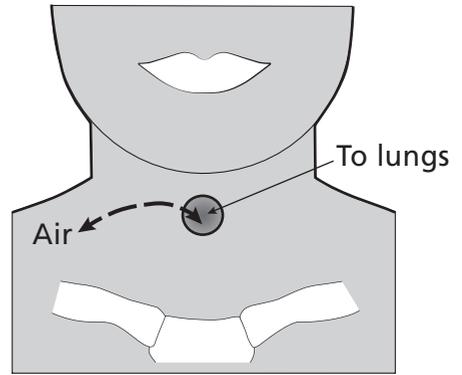
PROUD TO MAKE A DIFFERENCE

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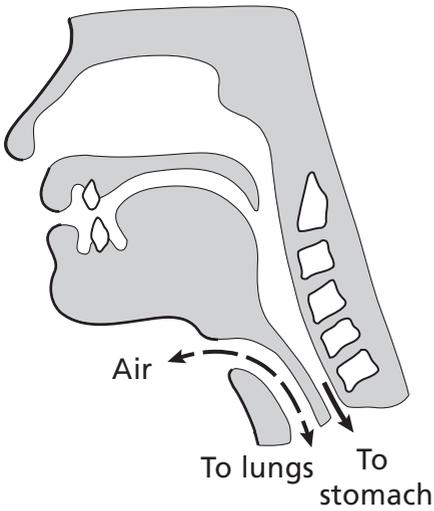




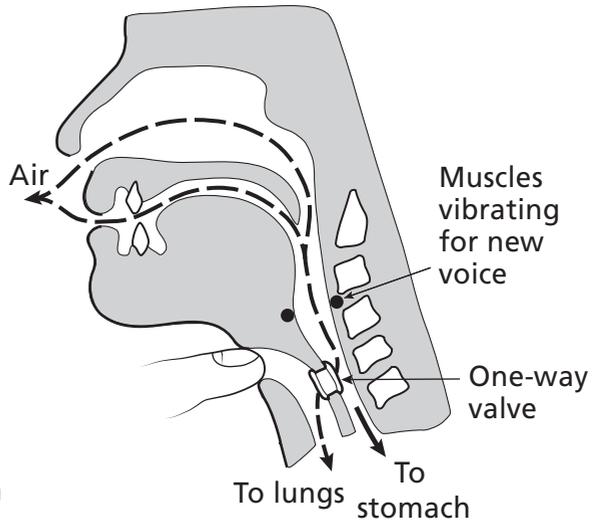
A. Before laryngectomy



B. After laryngectomy



C. After laryngectomy



D. Valve in position

Introduction

One method of producing a voice after a laryngectomy operation is to make the muscles at the top of the oesophagus (foodpipe) vibrate. A one-way valve is used to divert lung air from the trachea (windpipe) into the oesophagus (see diagram D opposite). The valve will let lung air through to the throat when the stoma is covered and the air pressure builds up in the trachea. The increased pressure is achieved by covering the stoma (hole) with a finger or thumb (see diagram D). The air then flows through the valve and up through the throat, vibrating the muscles as it does so. This “noise” is then formed into speech using the lips and tongue as before surgery.

Producing a voice in this way takes time and practice. Other ways of communicating are usually practiced alongside e.g. using an artificial larynx or oesophageal voice.

Cleaning the one-way valve

You will need to clean the valve at least once a day, more often in the early stages, since it is likely to become blocked with chest secretions. It may take a while to feel confident about doing this. Start off by cleaning around your stoma (and stoma button if you wear one) with a damp cloth. This will help you become more confident about touching your neck. Sit in front of an angled mirror with a bright light shining so that you can see into your stoma.

Clean any dried secretions from the front surface of the valve using tweezers supplied by the hospital. Next insert the valve brush into the shaft of the valve and gently twist it round to clean the inside. Say a loud ‘ah’ to clear any remaining secretions. After cleaning, rinse and air dry the brush. All brushes should be replaced after one month.

Using the one-way valve

- Try to breathe slowly and gently rather than taking shallow, snatched breaths.
- Sit or stand comfortably, making sure that your neck is not twisted and that your head is level (not pointing up or down). Use a mirror to check you are placing your finger/thumb in the correct place.

Continue to breathe regularly and gently. Before your next breath out place a finger/thumb gently but firmly over your stoma, open your mouth and say 'ah'. Uncover your stoma and breathe out any remaining air quietly.

Breathe normally:

i.e. breathe in → cover stoma → talk → uncover stoma.

- Covering the stoma comfortably and completely takes practice. Try using a different finger or other hand. If you find that the air is leaking around your finger, lean your body forwards to your finger, rather than pushing your finger further into your stoma.
- Next, cover the stoma as before. Breathe out saying 'ah', 'oo', 'ee'. Try to keep the sound going for as long as is comfortable.
- Practice words beginning with vowels e.g. arm, open, eat, etc.
- Count from 1 to 3 on one breath. Then try 1 to 5 and 1 to 10. Don't strain or continue speaking if you run out of breath.
- Remember to keep your breathing regular and relaxed.

Most people have good and bad days with their 'new voice'. It takes time for the throat muscles to adapt to being used in this way for voice. Remember not to force your voice as this will cause the muscles in your throat to tighten, and prevent sound being produced.

If you usually wear dentures or a hearing aid, try to make sure you wear them to ensure you produce the best voice possible.

With practice you will be able to use your valve with any stoma covering you wear, e.g. HME, stoma stud and filter etc.

Replacing the valve

The average lifespan of a valve is 4 months although this can vary from weeks to more than a year. Your valve will need to be replaced when it either allows drink to leak through the valve during swallowing or it becomes harder to use. You will be aware of a possible leaking valve if you start coughing when eating and/or drinking.

To check for leakage, take a small sip of coloured fluid (e.g. tea) and watch your stoma in a mirror as you swallow. If you see fluid coming through the centre of the valve, or if you start coughing, this means that the valve needs to be replaced.

Clean your valve thoroughly to clear any possible food debris that is keeping the valve open and then repeat the swallow test as above. If you cough again, ensure you place the 'valve leak plug' provided by the hospital into your valve when eating/drinking and contact the hospital to arrange for the valve to be changed. In most cases the valve can be replaced in Outpatients. The plug may be removed for talking.

If there is leakage **around** the valve, the plug will not stop this leak and the fluid can enter into your lungs. Please contact the hospital as soon as possible to arrange a review.

Contact information

To arrange an assessment and replacement, please contact the numbers below.

ENT Outpatients

- **0114 271 2347**
(Monday to Friday 8.30am to 5pm)

Head and Neck Unit RHH (Ward I1)

- **0114 271 2504**
(Weekends and Bank holidays)

If you have any questions regarding the valve that have not been answered in this leaflet, please ask either your Speech and Language Therapist or Clinical Nurse Specialist at your next clinic visit.

Speech and Language Therapy Department
Royal Hallamshire Hospital

- **0114 271 2533**



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