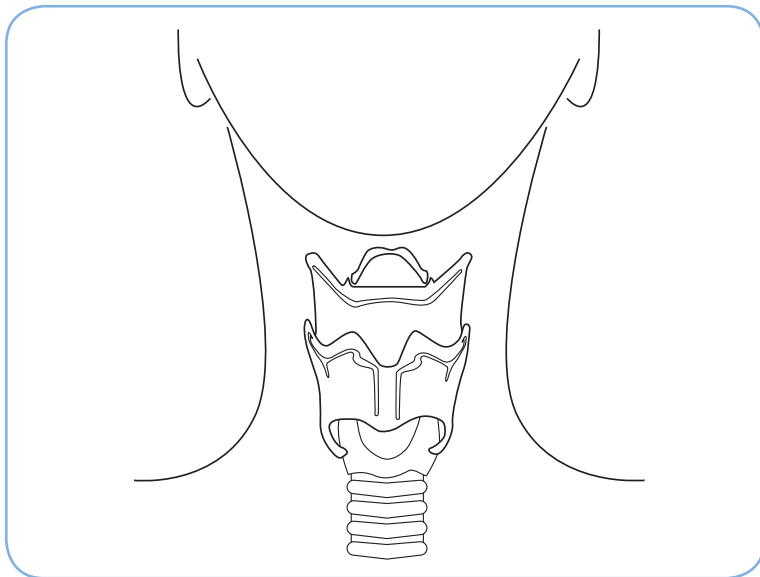




# Voice Care Information

## Voice Production - *How the Voice Works*



The Larynx (voice box) is a highly specialised organ which is perched on the top of the trachea (windpipe).

Its primary purpose is to act as a valve which closes when we swallow. This stops food and drink from entering the lungs. However, we also use it to produce voice when we speak, laugh, shout, sing and cough.

This line drawing shows the location of the larynx from the front as it sits at the top of the trachea. We can see inside the larynx by using a camera to look down the throat.



Inside the larynx are two muscles covered with a delicate membrane.



These are called the vocal cords. When the vocal cords are healthy, they appear as a pearly white “v” shape (see photo). The edges are smooth and flexible, allowing the voice to vary pitch, volume and quality. When we breathe the vocal cords are open and this allows air to flow in and out of the lungs.

When we speak the vocal cords move towards each other. The air coming from our lungs acts as the power source to the voice.



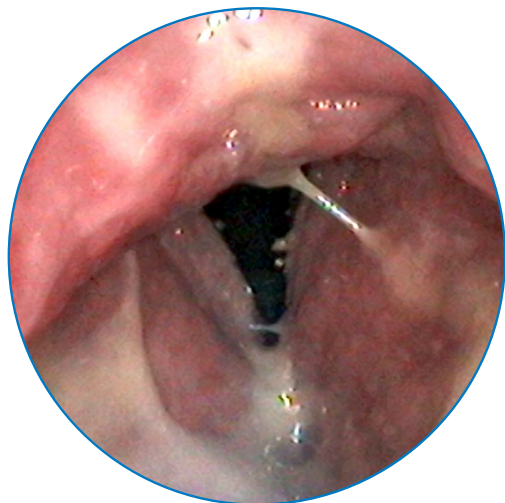
The moving air causes vibrations over the edges of the vocal cords and this rapid vibration makes a sound.

This is similar to what happens when you let the air out of the neck of a balloon, or when you blow on a blade of grass. We need a steady stream of air to keep the vibration going, so breathing is an essential part of producing voice.

As the vibrations move up through the throat and into the mouth we use our cheeks, lips, and tongue to shape the noise into the sounds we want for speech.

## Voice Care - How you can look after your larynx

The information contained in this leaflet explains what you can be doing to care for the health of your larynx.



It is very important to follow this advice closely because when a larynx becomes damaged, physical changes take place which can be seen in the photo opposite. These changes can alter the sound of the voice and make it painful and tiring to speak or sing.

Following the advice in this leaflet will enable the larynx to repair itself over time allowing voice production to become more comfortable.

If you need speech therapy, your therapist will train you in techniques which will enable you to use your voice safely at all times. However until you have learned how to voice safely it is best to avoid any activities such as singing, shouting, talking above background noise etc which could lead to further damage.

### Silent Reflux

If you have been diagnosed with silent reflux it is essential that you take your medication exactly as prescribed without missing any days. Order a new prescription from your GP before you run out of tablets and medicine so that no days are missed. You should also follow (as closely as possible) the life style recommendations on the reflux advice sheet.

If you have not received a reflux advice sheet your speech therapist can supply one.

**Dehydration** - a dry throat sounds strained and lacking in resonance.

- Have enough water to drink, particularly when speaking for long periods
- Aim to drink a minimum of 3 pints /1.5 litres of fluid which does not contain caffeine or alcohol per day
- Inhale steam if throat feels dry
- Keep up liquid levels, by taking regular sips throughout the day.

**Caffeine and alcohol** are drying agents – spirits are the most damaging.

- Reduce excessive intake of coffee, tea, cola: replace with water or decaffeinated versions
- Avoid drinking alcohol before speaking or singing.

**Throat clearing is hard on the voice.** The vocal cords are brought together forcefully, with a risk of damage, and mucus production can be worsened. If coughing does not produce phlegm, it may be a habit rather than necessity.

- Do one good cough then take a sip of water
- Recurrent throat clearing can be a symptom of reflux. So if you have been prescribed Gaviscon Advance taking a 5ml dose of it may reduce the need to throat clear.

**Medication** - some drugs affect voice quality, e.g. inhalers for asthma, anti-histamines etc.

- Be wary of preparations, which contain anaesthetics to numb pain
- Consult your doctor if any prescriptions seems to affect your voice
- Some medications can cause dry mouth.



**Tobacco and other drugs** - have a profound effect on the vocal tract, drying and irritating the mucosa. This may cause redness and generalised irritation to the nose and throat. If smoking continues this can lead to laryngeal cancer and pre cancerous conditions.

- Stop smoking - if you have difficulty ask your GP or speech therapist to refer you to a smoking cessation clinic
- Avoid smoky atmospheres.

**Lifting** - avoid lifting heavy objects if possible.

- If you must lift then avoid speaking at the same time
- As you lift blow air out through your lips. Do not hold the breath as you lift.

**Tiredness, fear, emotions** - It is more difficult to breathe and speak adequately when you are tired; vocal strain and dry throat may occur. Breathing rate and heart rate increase with fear, the larynx rises causing vocal cords to tighten, pitch rises, voice sounds tense.

The voice reflects emotional states, voice misuse can come from increased tension which has emotional origins. If you can identify that your voice problem is associated with stress or fatigue it is essential that you discuss this with your speech therapist or GP so that they can advise on appropriate management as soon as possible.

**Hormonal changes** - Women experience hormonal changes pre-menstrually. When hormone levels change the vocal cords can swell and increase in mass may cause the vocal pitch to lower giving a tendency to huskiness.

- Avoid excessive vocal demands at these times.



**Hot, dry atmosphere and central heating** - dry out the mucus membranes.

- Humidify the room, place bowls of water on or near a radiator, have house plants in water, or hang a damp towel over the radiator etc
- Ventilate room when possible, drink water.

## **Colds, coughs and infective sore throats.**

- Save your voice as much as possible, avoid unnecessary talking, take plenty of cool drinks, suck fruit pastilles or chew gum to keep mouth moist. Beware of lozenges which may have a drying effect or can be irritants
- Gentle steam can reduce soreness. When inhaled, the steam rising from hot water reaches, soothes and moistens your larynx.

If your voice starts to be affected when you are beginning to get a cold **REST IT.**

- Stay off work, pick up your pen, don't answer the phone, use text or e-mail if possible
- Avoid whispering
- Avoid singing
- Avoid using your voice to rehearse plays, concerts or organising sports when starting with a cold. Also avoid teaching and excessive talking while starting with a cold as this can and does cause long term problems
- Drink plenty of fluids - especially water.

**Background noise** - raising the pitch of your voice, using loud voice, yelling and shouting can lead to strain.

- Avoid using a mobile phone in a moving car, engine noise is louder than you think.



- Avoid speaking for long periods in noisy conditions - over classroom activities, in swimming pools, pubs, discos, parties, etc
- Remove or reduce unnecessary noise when possible, e.g. turn TV/ radio off before speaking
- Use controlled precise delivery, remember people lip-read when they listen.

**Dust, chalk, fumes, felt-tip pen fumes, some solvent based glues, chlorine,** etc – these are irritants, which cause the mucus membranes of the vocal tract to become dry or inflamed.

- Wear a dust mask if possible
- Avoid dusty environments
- Avoid fume filled atmosphere (e.g. spaces where a lot of aerosols are used)
- Make sure the area is properly cleaned and well ventilated
- Drink water.

## Being heard

- Never choose to whisper, it does not save the voice it strains the larynx and is damaging
- Always aim to produce normal conversational voice
- Focus on the listener – adjust the volume of your voice and clarity of speech to match the distance between you and them
- Bring individuals to you or go to them rather than call out
- Use visual signs (raised hand) sound signals (clap, bell, whistle, etc) to attract attention
- Draw the group close to speak to you in halls, gym – don't fight the acoustics
- For people with hearing impairment make sure you face them when speaking
- Use a microphone if you need to deliver any presentation/speech etc to a large group.





## Patient Experience Team

The team are available to help with any concerns, complaints or questions you may have about your experience at the Trust. Their office is in the Main Foyer (Gate 4) of Doncaster Royal Infirmary. Contact can be made either in person, by telephone or email.

### The contact details are:

Telephone: 01302 642764 or 0800 028 8059

Email: [dbth.pals.dbh@nhs.net](mailto:dbth.pals.dbh@nhs.net)

Aknowledgements:

Sara Harris at the British Voice Association: image on page 2

Speech and Language Therapy

