

## Voice problems

People with a voice problem most commonly experience hoarseness, which means a change in the sound of the voice, although other symptoms may also be apparent such as pain or discomfort in the throat and aspiration (coughing on eating or drinking). Hoarseness may be represented by a gruff, raspy, strained and/or breathy voice. People may also notice a difference in how loud they can speak or in the range of their voice (in other words, a change in their pitch).

### What causes Hoarseness?

Hoarseness occurs as a result of the vocal cords in the voice box (Larynx) not working properly. Normally when we talk or sing, the vocal cords move together and vibrate very rapidly. When we exhale (breathe out), the movement of the air past the vibrating vocal cords creates a basic sound. This sound is then subsequently modified by the air passing through the throat and mouth until a final, more refined sound emerges from the lips which we know as the voice.

There are several reasons why the vocal cords may not be working correctly. Of the many different causes of hoarseness, the vast majority are not serious and tend to get better by themselves after a short period of time. The most frequent causes are below:

- An upper respiratory tract viral infection (laryngitis)
- A swelling of the tissue underneath the surface of the vocal cord (polyps).
- A harder fibrous growth of the vocal cord (nodules). These can develop when the voice is used too much or too loudly for extended periods of time. They are otherwise known as Singer's Nodules, reflecting the occupation of people who frequently suffer from them, although teachers are also at high risk.
- A growth or tumour of the vocal cord or other part of the larynx. These growths may be non cancerous (benign) or cancerous (malignant)
- Acid from the stomach irritating the vocal cords. This can be because of gastro-oesophageal Reflux (GORD) or laryngopharyngeal reflux (LPR), which are distinct entities
- Hypothyroidism (underactive thyroid gland) which causes oedema or fluid swelling beneath the vocal cord (Reinke's oedema)

### What things make a hoarse voice worse?

Aside from the many different causes of hoarseness, there are a number of factors which can increase the chance of hoarseness occurring.

- As alluded to above, **vocal misuse** is a common precipitating factor. This does not necessarily mean anyone who has a loud voice as opera singers rarely get hoarseness on account of the excellent vocal technique they employ. The key factor therefore is misusing or straining the voice box in a way that harms the delicate inner lining of the larynx and vocal cords. This is easy to do, particularly if you are trying to make yourself heard over a crowd of people or if you suddenly shout without warning (such as to control a child). The groups of people who are at risk of vocal misuse are:
  - Singers
  - Teachers
  - Parents with young children
- **Smoking** is perhaps the greatest problem. It causes thickening and swelling of the vocal cords and underlying tissues and renders them less efficient. Prolonged smoking can also contribute towards the development of cancers of the larynx
- **Acid reflux:** Laryngopharyngeal reflux (LPR) is a condition whereby acid and enzymes from the stomach make their way up the oesophagus to the throat and larynx where they cause irritation, a burning sensation, a feeling of something stuck in the throat ('globus pharyngeus') and hoarseness. LPR is a distinct condition from the better known gastro-oesophageal reflux (GORD) as, in LPR, the symptoms of burning behind the breastbone or pain in the upper abdomen typical of GORD are not often present.
- **Asthma inhalers:** Patients who regularly take inhalers for their asthma can sometimes experience hoarseness or a sore throat due to the irritative effect of residual deposits of the inhaled medicines. This problem can be readily reduced by either using a spacer device with the inhaler, or better still to wash the mouth or gargle after administering the inhaler.

### How is Hoarseness treated?

In most cases, hoarseness will improve by itself. To help relieve the symptoms and promote natural resolution of the problem, common sense advice prevails, including:

- Rest the voice
- Drink plenty of fluids
- Avoid alcohol
- Do not smoke and avoid smoky areas
- Have plenty of rest
- Take common painkillers such as paracetamol or aspirin. If you also have a sore throat, it is useful to gargle with a soluble aspirin which can then be swallowed or spat out as required
- Take antacids such as Gaviscon Advance™ or Rennies™, if there are symptoms to indicate GORD or LPR

If the hoarseness is more severe, prolonged or does not resolve after the advice above, medical help should be sought. In particular, people suffering from the following symptoms should seek medical advice from their General Practitioner (GP):

- Prolonged hoarseness persisting for over three weeks
- Repeated episodes of hoarseness in the absence of symptoms to suggest a viral infection or 'flu
- Prolonged sore throat or difficulty in swallowing for more than three weeks

Your GP may decide to refer you onto to an ENT surgeon if he/she is not satisfied with your condition. The specialist will take a history of the problem and will undertake a thorough examination of the throat and larynx to identify the cause of the hoarseness. This will probably involve performing a flexible nasendoscopy examination in which a thin flexible telescope is passed gently through the nose under local anaesthetic. This is not usually anywhere near as uncomfortable as it sounds and typically takes little more than 30 seconds.

#### What treatment may be advised for hoarseness?

Depending on the clinical findings, the treatment options are:

- **Speech Therapy:** The problem in most cases is related to the way in which the voice is being used. Usually the voice is being unduly strained or there could be excessive anxiety and/or stress contributing to this. Under these circumstances, the speech therapist will be able to advise specific exercises to take the strain off the larynx and promote better, more relaxed speech as well as developing good vocal hygiene techniques, such as good water intake, no smoking and avoidance of throat clearing or coughing. In combination, these measures should help to improve the quality of the voice.
- **Microlaryngoscopy:** This is an operation to examine the larynx more carefully under a general anaesthetic (GA), and if necessary, to remove any lesions that may be present. The lesions may include nodules, polyps and non cancerous (benign) tumours as well as other swellings where the diagnosis is not clear and where there is a risk of a cancer. In most cases, the tissue is sent off to the laboratory for analysis. In this way it is possible to diagnose definitively the precise nature of the lesion and in particular if there is a tumour or cancer present.

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