

# **Adult Voice Difficulties**

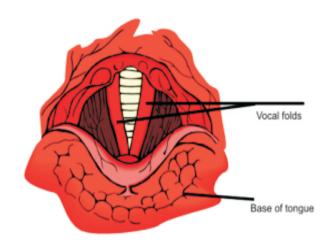
Many adults have difficulties or disorders with their voice. Voice problems can occur for a variety of reasons:

- Misuse of voice
- Stress
- Injury or illness affecting any part of the vocal apparatus
- Disease and illness of the larynx and/or laryngectomy

Problems with voice can affect a person's life in many ways including their career progression, relationships and confidence. Many things can be done with speech therapy and lifestyle changes that can have a positive impact on your voice.

#### How the voice works

Voice is powered by air from the lungs, the air passes through the larynx which contains the vocal folds (often called the vocal chords). The vocal folds are 2 folds of muscle that meet together many times per second (approximately 125 per second for men and 210 times for woman) when we want to produce voice.



A superior view, looking down into the larynx

The meeting together of the vocal folds creates the voice which resonates in the pharynx, oral and nasal cavities, and is then shaped into words by the speech apparatus, the tongue, lips, facial muscles etc. Pitch is changed by altering the mass, length and tension of the vocal folds e.g. if you make an "eeee" sound and then an "aaaa" sound, this is air passing through your vocal folds at different tensions and lengths (with your tongue also helping to shape the sound). The sound made in the larynx will travel into the oral cavity and your tongue, cheeks and lips will assume particular positions to articulate the sounds correctly. When we make voiceless sounds ("s", "f" etc) our vocal folds are apart (abducted), and when we make voiced sounds ("a", "m" etc) our vocal folds come together (adducted).

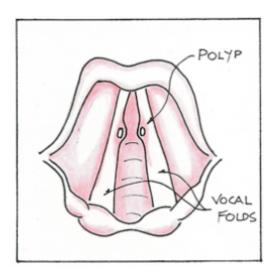


## What goes wrong?

A number of things can cause voice problems and these are usually associated with the larynx. Within the larynx are the vocal folds (often called vocal chords), the two pieces of muscle that come together to make sound. If these get damaged or a growth develops on one of them it will affect the voice. If the vocal folds cannot come together properly, then air can escape between them causing croaky or breathy speech. Weak breath control can also cause voice to be weak or at a low volume.

## **Croaky voice**

This is often caused by a growth on the edge of the vocal fold which causes air to escape when the folds are coming together to make sound. There are several different types of growths that cause voice problems and these include nodules, cysts, polyps and tumours. These growths are usually caused by misuse or abuse of voice, lifestyle or stress, but are also the result of an injury to the larynx. These growths are differentiated by there presentation, size and location on the vocal folds, but they generally present with similar symptoms of a hoarse, croaky or breathy voice.



## **Breathy voice**

This can also be caused by a growth on the vocal folds, or because of breathing difficulties. A weak breath may display as speech which is short and low in volume. Illness, weakness or stroke can cause a weakness in breath support. Breath is the power and energy behind voice and any difficulties with breath control will impact on voice. In these circumstances the individual should try and slow speech and produce less words per breath (see the section on breathing exercises).



### Activities, behaviours and conditions that can cause voice difficulties

- Shouting and Screaming
- Singing
- Occupations which involve lots of talking or raising your voice
- Smoking
- Certain medications (inhalers etc)
- Dehydration
- Reflux
- Stress
- Improper use of breathing for voice
- Ill health, especially illness involving lungs or throat
- Diet

# Warning signs that you may have a voice problem

- · Constant loss of voice
- Hoarse or croaky voice
- Recurrent sore throat
- Deterioration of voice through the day
- Uncontrolled changes in pitch
- Persistent need to clear throat

### Assess your own voice

To get to the bottom of you own voice problems, ask yourselves the following questions:

<u>Symptoms / Habitual behaviour</u> (e.g. coughs, throat clearing) - do you have frequent chest infections, coughing, throat infections, a need to clear your throat continually?

Occupation - are you in a job that you find stressful? Do you use your voice a lot at work?

<u>Lifestyle</u> - do you have leisure pursuits where you have to shout or sing a lot? Do you drink more than the safe recommended amount of alcohol and/or do you smoke?

<u>General health</u> - are suffering from stress or depression? Is your health poor? Do you take certain medication and/or use an inhaler? Do you suffer from reflux?

Stress - do you suffer from stress, do you find it hard to find time to relax?

Other - has there been any periods lately when you shouted or screamed and then noticed that you had difficulties with your voice.



#### Treatment

Treatment can follow several routes. Surgery can remove growths that cause the voice condition. However, if you do not address the underlying cause of the growth (vocal abuse, misuse, stress etc), there is a good chance the voice problem will reappear. Speech therapy can be used in conjunction with surgery, or as an alternative. However, for many people, just changing their lifestyle can improve their voice.

## Lifestyle changes to improve voice

- Breathe correctly breath from the diaphragm and take deep breathes before you speak. Do not continually talk until you run out of air. If you breath shallowly (from your chest, rather than from your stomach), you are not using your breath for speech correctly and not supplying as much power for speech as you could. This means that your vocal folds will be working a little harder than they should and this could lead to a voice problem. To make yourself aware of breathing from the diaphragm, try putting your hands on your stomach with your fingers slightly open. Breath in slowly through your nose and feel and see your fingers move when you inhale.
- Have a good posture good posture will help with your breathing technique.
- <u>Stay hydrated</u> drink lots of water continually through the day. Avoid drinking too many caffeinated drinks or too much alcohol.
- Try to relax a major cause of voice disorders is stress. Excess tension will effect your posture, your breathing, and the muscles of your throat and neck which impacts on your voice. If you are experiencing voice problems, find time each day to relax. Everyone has different ways to relax, whether it be listening to music, going for a walk, or just watching TV. The important thing is to make time to unwind. The tension around your shoulders and neck can have an impact on the muscles around your larynx which in turn will have an impact on your voice.
- Avoid clearing your throat or whispering many people with voice difficulties feel the need to constantly clear their throat, and are often doing this without thinking about it. Throat clearing can really aggravate voice difficulties. Some suggest either doing a hard swallow or taking a sip of water rather than throat clearing. Contrary to what many people believe, whispering is not good for protecting your voice, because the vocal folds have to work harder when whispering.
- <u>Stop smoking</u> try to stop or reduce smoking as the smoke passes directly over the vocal folds. Smoking can respiratory illness, laryngeal cancer and other health problems which can all impact on voice.



- Awareness of your occupation does your job involve a lot of talking? Apart
  from changing you job, there are a number of things you can do to help
  protect your voice. Drink lots of water and breath from the diaphragm (see
  above) before you speak. Try to avoid talking or shouting when it is not
  absolutely necessary and find some times in the day to relax and unwind.
- If your occupation involves breathing in dust and/or fumes, try and find some way to reduce your exposure.
- <u>Do you take medication?</u> be aware that certain medications such as inhalers can coat the pharynx and vocal folds, drying them out. One way to help with this is to stay well hydrated and drink lots of water. Talk to your doctor if you feel that your medication may be effecting your voice.
- <u>Do you suffer from reflux?</u> If you suffer from reflux at night this can also cause voice problems. If you think this might be causing your problems, see your doctor for some relevant medication
- Avoid work environments that are smoky or dusty

## Exercises to relax the muscles related to speech

These are good exercises to perform before a period of relaxation:

1.



2.



Shoulder shrugs - raise your shoulders upwards, hold and lower - 5 times..

1.



2.



<u>Shoulder rotations</u> - rotate your shoulders forward and around 5 times, and then back and around 5 times.



1.



2.



<u>Arm swing</u> - Swing your arms across the front of your body and then stretch them behind you.

1.



2.



<u>Throat and neck stretch</u> - tuck the chin and lower your head forward (feeling the stretch in your neck), then lift your head and stick out your chin and feel the stretch around the throat area. Try and do this exercise 5 times.

1



2.



<u>Head tilt</u> - Slowly tilt the head to the right and stretch, then to the left and stretch. Again, try this 5 times (try not to raise your opposite shoulder, just stretch the neck).





Tilt your neck from one side to the other, then circle your head clockwise and anti-clockwise 3 times.



Lift your arms in the air and circle them around like a windmill, 5 times clockwise and 5 times anticlockwise

Do not carry out these exercises if you have arm, neck, back or shoulder injuries. If you are unsure about doing any of these exercises, refrain from exercising until you have spoken with your doctor or speech language therapist/pathologist.

## **Breathing exercises**

Breathing exercises can be used to give you more awareness of your breath, breath control, diaphragmatic breathing, and aid relaxation. Find a quiet space, and if it helps, put on some soft soothing music. Lie on the floor, close your eyes and relax your whole body. Empty your mind of things that are worrying or stressful.

When you are relaxed, lie down or sit up straight with good posture. Put your hands on your stomach (below your rib cage) and make sure you are breathing from your diaphragm. Breathe in gently through the nose and out through the mouth. If you are breathing correctly you should feel the movement of your hands on your stomach and not have upward movement of your shoulders. Pause between each breath so as not to hyperventilate?

Initially breathe in to the count of 3 and then breathe out to the count of 3. Over time increase the length of your breath in and out to a count of 4, then 5 etc. up to 10. This exercise can also be useful if you suffer from breath weakness following illness or stroke because it will help you learn to control your breath when you use speech.

Many people have found that both Meditation and Yoga are good for helping with breath control and breathing awareness, as well as helping with relaxation.



## **Exercises for your voice**

Before performing the exercises make sure you are relaxed, hydrated and aware of your breath support (as per instructions above).

Practice soft onset voicing. This exercise helps give you more awareness of your voice and breathing. Make sure you are breathing from the diaphragm (as per instructions above). You should not feel any strain on your larynx when you try these exercises. The point is to lead into the sounds really gently and give you more awareness of your breathing and your larynx.

- Start by letting out a silent sigh ("h") as you breath out. Add a vowel to your silent sigh, gently blending the "h" into the vowel sound e.g. h...aaaaa, h...eeeee, h...ooooo
- Try using other voiceless sounds such as "sh" e.g. sh....eeeee etc
- When you feel confident with these sounds and feel that you can make them using good breathing and no strain on your larynx, try gently gliding some vowel sounds together

e.g. aaa....ooo aaa....eee aaa.....ay eee.....aaa ooo....eee

- Use the "m" sound to feel resonance. Try these exercises, again, using good breathing techniques and soft onset (gently gliding into the sounds putting no strain on your larynx). First, try humming and produce an extended hum on one breath e.g mmmmmmmm. Then try and guide into vowel sounds e.g. mmm....oo mmm....ee mmm....aa mmm....ay
- Try the exercise with different vowel sounds. Then try to link several sounds together

E.g. Heeeeeehaaaaahooooo

As you do these exercises try to make the transition from one sound to another as smooth as possible. Think about your breath and think about trying to ease into the vowel sound as gently as possible. Be aware of how gently you are using your voice and how softly your vocal folds are coming together. As well as providing awareness of your breathing and voice, this exercise can also be a form of relaxation.

These exercises are not designed to "fix" your voice problem, but they are good for creating more awareness of our larynx, voice and breathing. Speech therapy for voice difficulties should be carried out by a suitably qualified Speech and Language Therapist/Pathologist.



To learn more about voice and voice problems go to our website www.icommunicatetherapy.com, or read about and purchase books from our Online Resource centre by clicking this link:

**Book Shop** 

Voice and Voice Therapy (with Free DVD), 7th Edition by Daniel R. Boone, Stephen C. McFarlane, and Shelley L. Von Berg

**Treatment of Voice Disorders** by Robert Thayer Sataloff

Working with Voice Disorders by Stephanie Martin and Myra Lockhart

Greene and Mathieson's The Voice and its Disorders, 6th Ed. by Lesley Mathieson

Voice and Laryngeal Disorders: A Problem-Based Clinical Guide with Voice Samples by Sally K. Gallena

Laryngeal Cancer - A Medical Dictionary, Bibliography, and Annotated Research Guide to Internet References by ICON Health Publications

**The Voice Clinic Handbook** by Harris, Tom Harris, John S. Rubin, and David M. Howard

Understanding Voice Problems: A Physiological Perspective for Diagnosis and Treatment by Raymond H Colton, Janina K Casper, Rebecca Leonard

**Voice and the Alexander Technique** by Jane Heirich

Management of the Voice and Its Disorders by Linda Rammage, Murray Morrison, and Hamish Nichol

Voice And Communication Therapy for the Transgender/transsexual Client: A Comprehensive Clinical Guide by Sandy Hirsch, and Michelle Mordaunt Richard K. Adler

Voice Treatment for Children & Adolescents by Moya L. Andrews

**Evaluating Voice Therapy: Measuring the Effectiveness of Treatment** by Carding and Paul Carding

**Voice Disorders and Their Management** by Margaret Freeman and Margaret Fawcus

Understanding and Treating Psychogenic Voice Disorder by Peter Butcher, Annie Elias, and Lesley Cavalli

Clinical Assessment of Voice by Robert Thayer Sataloff

