

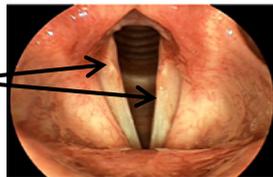
Muscle tension dysphonia

What are the vocal cords?

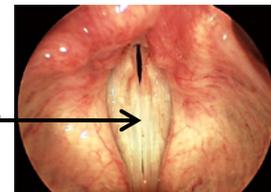
The vocal cords are two small muscles located in the larynx (voice box) that are responsible for producing the sound of your voice. They are found within the trachea (windpipe) at the level of the Adam's apple. The vocal cords are very small, about 1.8cm long for men and 1.1cm for women.

When we are not speaking, the vocal cords are open, allowing air to pass in and out of our lungs. During speech they come together, and as air from the lungs pushes up through them, they vibrate and produce sound. Movement of the lips and tongue change this sound to create individual sounds.

Normal vocal cords in an open position (straight)



Normal vocal cords in a closed position for voicing (tight closure)



*Images courtesy of Lucian Sulica, MD,
www.voicemedicine.com*

What is muscle tension dysphonia?

Excess tension in the muscles surrounding the vocal cords may cause your voice box to tighten or constrict. This impedes the movement and vibration of the true vocal cords and causes your voice to sound strained. You may need to use increased effort to speak, and talking for a long time may make your voice tired and uncomfortable.

What are the symptoms?

- Tiredness, aching or pain when speaking or singing.
- A dry throat, particularly if speaking for long periods of time.
- A change in voice quality, possibly more towards the end of the day.
- A change in the pitch of your voice (too high, too low, or unpredictable), or experiencing voice breaks where the sound 'cuts out'.

You may feel your voice is:

- Rough or hoarse
- Tight, strained or tense
- Breathy or weak.

What causes muscle tension dysphonia?

Muscle tension can be caused by one, or a combination of many factors. These include:

- Changes as a result of a throat infection or emotional event e.g. bereavement/life stress.
- Long term misuse of your voice, e.g. through shouting/yelling/raising your voice or not looking after your voice.
- Compensation for an underlying problem with your vocal cords, e.g. a cyst or polyp, or fatigue in the vocal muscles.
- A result of acid reflux and your body trying to 'guard' your vocal cords from damage.

How is muscle tension diagnosed?

Diagnosis of muscle tension usually requires looking at your vocal cords, at rest and when you are talking, with an endoscopic camera. This is carried out by an Ear, Nose and Throat specialist (ENT), and may be in collaboration with a Speech Pathologist. A precise history of your voice difficulty is taken to analyse contributing factors and any other causes for the voice problem.

How is muscle tension dysphonia treated?

If tension is the only cause for voice difficulties, treatment is usually through voice therapy sessions with a Speech Pathologist. These sessions help to identify the cause of the tension and provide you with a series of education, breathing and relaxation techniques to reduce misuse behaviours and patterns. Home practice is usually required between sessions.

In most cases, muscle tension can occur without causing any damage to the vocal cords. However, with prolonged muscle tension and forcing your voice, it may cause some swelling and irritation to your vocal cords, so it is best to get it checked early.

If there is an underlying cause for the voice difficulty, e.g. abnormality of the vocal cords or damage to the cords as a result of muscle tension, the ENT specialist will discuss any medical/surgical options to help. It is usually advised that you attend voice therapy sessions alongside any medical/surgical intervention to aid your recovery and avoid reoccurrence.

Please seek advice from your doctor, ENT specialist or Speech Pathologist if you are concerned about your voice.



Ways to help reduce tension:

- Do something every day that you enjoy and that you find relaxing, this may be reading, taking a walk, listening to music etc.
- Avoid shouting/yelling/screaming and avoid whispering.
- Reduce speaking or singing over background noise.
- Avoid speaking or singing outside of your natural pitch range, ie. too high or too low.
- Avoid excessive throat clearing or coughing.
- Drink plenty of water to keep hydrated and try inhaling steam to relax and hydrate your voice box (larynx).

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