



## Voice disorders following ABI

*Voice changes can occur for many different reasons. While many reasons are non-medical, such as tension, anxiety, talking without resting, smoking, talking while you have a throat infection and yelling, some reasons are medical, such as a stroke, head injury, tumour, an autoimmune condition, Parkinson's disease or cancer.*

### Signs of voice disorders:

- Strained, hoarse, croaky, shaky or strangled voice quality
- Breathy or hoarse voice quality that is difficult to be heard
- Tiredness (from increased effort) after speaking
- A voice that doesn't carry well over background noise
- No speech production
- A feeling that it is an effort to use voice
- Frequent throat-clearing or coughing
- A voice that does not have the usual variability in pitch or range

Any of these symptoms can happen when the vocal cords are not working effectively. These symptoms may also be seen along with an abnormality in the larynx (e.g. swelling, inflammation, bleeding, fungal infection, tumour, paralysis, tremor or spasming).

(Adapted from Speech Pathology Australia).

### The most common voice disorders following ABI are:

#### **(1) Dysphonia**

Symptoms come from more than one source. Some people appear to have nervous system changes that produce an organic tremor of the vocal cords.

Others may have *dystonia*, another kind of neurologic disorder that creates abnormal muscle tone. In rare cases, people can have spasmodic dysphonia symptoms because of acute or chronic life stress.

#### **(2) Vocal fold paralysis**

Everyone has two vocal cords in his or her larynx (voice box) which vibrate during speech to produce voice. If one or both vocal cords are unable to move then the person will experience voice problems and possibly breathing and swallowing problems.



There are different types of vocal cord paralysis:

- **Bilateral vocal cord paralysis** involves both vocal cords becoming paralysed halfway between open and closed and not moving either way.
- **Unilateral vocal cord paralysis** is when only one side is paralysed or has a very limited movement. It is more common than bilateral involvement. The individual will run out of air easily & they will be unable to speak clearly or loudly

(American Speech-Language-Hearing Association)

## What can help a person with a voice disorder?

1. The first step is to be seen by an Ear Nose and Throat (ENT) specialist. The specialist will view the vocal cords using a small flexible scope, and this information will provide a diagnosis and guide treatment options
2. A Speech Pathologist will then target the impairment via therapy. Specific exercises can be developed and / or compensatory strategies can be taught
3. Medical and / or pharmacological treatment can be explored, usually after therapy has been tried  
E.g. Botox injections into the vocal folds)
4. Modify the environment to make it communication friendly  
E.g. turn off the TV, meet at a quiet location, consider not meeting in large groups
5. Help the person use appropriate voice strategies  
E.g. take regular breaks, avoid background noise, use good breath support for speech, and keep stress levels manageable
6. Help the person use appropriate voice hygiene –  
E.g. avoid dehydrating drinks (alcohol, caffeine), medications (antihistamines, cold & flu medications), drugs (tobacco, marijuana), and menthol-based throat lozenges.
7. Provide encouragement to the person to persist with their communication and to use their strategies to get their message across

