What is Spasmodic Dysphonia?

Spasmodic Dysphonia (SD), also known as Laryngeal Dystonia, is a focal dystonia which affects the muscles of the larynx or voice box. The resultant spasms prevent the vocal cords from vibrating, which is essential for fluent speech. There are 2 main recognised types of SD, the most common type occurs when the vocal cords are forced together (adductor SD), the voice becomes strained and there are many interruptions in speech. In the second type the spasms push the vocal cords apart (abductor SD) with resultant hoarseness and a whispering quality to the voice. There are other variations of SD including a combination of adductor and abductor. The symptoms often vary throughout the day and are made worse by stressful situations such as public speaking or talking on the telephone. DS is specific to speech but laughing or shouting is usually unaffected.

Spasmodic Dysphonia can also be seen in conjunction with other dystonias such as neck, eyes, face or oral dystonias.

Like many dystonias SD affects more women than men and is most likely to occur in the 30-50 year age group.

What causes Spasmodic Dysphonia ?

As in other dystonias, for most people no cause is found. However, it is generally accepted that Spasmodic Dysphonia is related to an abnormality in the functioning of the basal ganglia, a collection of important nerve cells deep in the brain. Although genes for other dystonias have been isolated no gene has yet been found where SD occurs on its own.

There is no known cure for SD but there are treatment options to reduce symptoms.

How is Spasmodic Dysphonia diagnosed?

Diagnosis is based on a multidisciplinary approach. Initially a specialist neurologist will evaluate the clinical symptoms, perform a neurological examination and take a detailed history for a provisional diagnosis of SD. An Ear Nose & Throat surgeon may be asked to perform an examination of the larynx (laryngoscopy) to confirm the diagnosis and the type of SD. A speech pathologist can look at the speech patterns to aid in diagnosis and also assist in teaching strategies to improve voice production and projection.

If symptoms are intermittent, as they often are in the beginning, it may take some time to obtain a clear diagnosis. A delay in diagnosis means a delay in commencing treatment which can add to the person’s frustrations.

What treatments are available?

**Oral medications** for people with Spasmodic Dysphonia include benzodiazepines such as Valium ® (diazepam) and Rivotril ® (clonazepam), which act as muscle relaxants, anticholinergics such as Artane ® (benzhexol) and the anti-epileptic drug Neurontin® (gabapentin). These medications have been used with limited success.

**Botulinum toxin A** is one of seven neurotoxins obtained from the bacterium clostridium botulinum which causes paralysis of the muscles. This remains the treatment of choice at present for the majority of people with all types of DS. Minute amounts of the toxin are injected into the affected laryngeal muscles, which reduces the overactivity of the muscles by partially paralysing them. Botulinum toxin therapy has been available for over twenty years and has the most success in reducing symptoms in SD. As with all treatments there are side effects such as mild swallowing issues or a weak voice but for most it is well tolerated.

**Surgery**: there have been many surgical procedures performed for DS with varying success. These include surgical separation of the vocal cords (thyroplasty) and varied denervation surgery with excision of part of the nervous supply to the muscles of the larynx.

What is the long-term outlook?

Spasmodic Dysphonia does not affect the person’s intellectual capabilities but it can adversely affect the individual emotionally, socially and occupationally. It is therefore important for the individual to be aware of all treatment options to make an informed choice that will enhance quality of life.

This leaflet was compiled from information made available by ASTA, the Australian Spasmodic Torticollis Association.

The information contained in this leaflet is of a general nature only. Please consult your Movement Disorder Specialist or Neurologist if you have specific questions regarding your condition.

Blue Mountains and Greater Sydney Dystonia Support group meet bi-monthly. For more information please contact Kerrie Jackson on 0414 648 571 or Email: [ladyrose52@hotmail.com](mailto:ladyrose52@hotmail.com)



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(DS)

June 2013