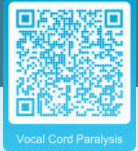


VOCAL CORD PARALYSIS



Vocal cord paralysis is a common disorder that involves a malfunction in one or both of the vocal cords, the tissues that allow us to speak. When a vocal cord does not open or close properly, the airway is left open, which can allow food or liquids to slip through. This causes difficulty swallowing or breathing, as well as coughing, and often occurs after neck or throat surgery.

DIAGNOSIS

The cause of vocal cord paralysis is often not known, but some patients may develop this condition as a result of:

- ▶ Inflammation tumors
- ▶ Neck or chest injury
- ▶ Viral infection
- ▶ Stroke vocal cord injury

Depending on the paralyzed position of the vocal cord, paralysis can cause:

- ▶ Hoarseness
- ▶ Breathy or weak voice
- ▶ Coughing
- ▶ Difficulty breathing
- ▶ Difficulty speaking loudly

If both vocal cords are affected, symptoms may be severe.

Vocal cord paralysis can be diagnosed through physical examination and a series of diagnostic tests such as an endoscopy, laryngeal electromyography or blood tests. Treatment for vocal cord paralysis depends on the cause, severity and length of the condition, but may include voice therapy or surgery. Voice therapy works to strengthen the vocal cords and keep the airway protected. While surgery may inject bulk to the paralyzed vocal cord, reposition it or insert a breathing tube into the windpipe. Speech therapy may be recommended after surgery to help the patient get used to the changes.

A vestibular balance disorder is diagnosed after reviewing your medical history and examinations.

▶ **Examinations:**

- ◊ **Laryngeal Electromyography (EMG):** Laryngeal electromyography is a diagnostic exam that evaluates the health of the vocal cord muscles and the nerves that control them by measuring muscle electrical activity. This test is most commonly performed to determine the cause of muscle weakness, as well as to predict recovery from vocal cord paralysis and other related conditions. During the EMG exam, thin needle electrodes are inserted through the skin and into the muscle, where they detect electrical activity while the vocal cord muscle is at rest and contracting. Patients may experience mild pain when the electrodes are inserted, but this is tolerable for most. This test is usually performed in conjunction with a nerve conduction velocity test.

SYMPTOMS

Symptoms may include:

- ▶ A breathy voice
- ▶ Hoarseness
- ▶ Loss of vocal pitch
- ▶ Loss of gag reflex
- ▶ Choking or coughing while swallowing food or drink

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TREATMENT

▶ **Surgery:**

- ◇ **Arytenoid Adduction:** Arytenoid adduction is often performed in conjunction with medialization laryngoplasty for patients with paralyzed vocal cords. Although the laryngoplasty procedure is effective in restoring strength and volume to the vocal cords, it does not affect the arytenoid, the small piece of cartilage in the posterior portion of the vocal cord. Adduction turns the arytenoid in toward the vocal cord to ensure that no air leaks through this area. This helps patients achieve a stronger voice quality after surgery. It may be performed at the same time as laryngoplasty or at a later date.
- ◇ **Medialization Laryngoplasty:** Medialization laryngoplasty is performed to restore volume and support to vocal cords that have weakened or become paralyzed as a result of age, injury, stroke, tumor or other factors. Patients with these conditions often experience difficulty swallowing, coughing and speaking. During the medialization laryngoplasty procedure, an incision is made in the throat to access the vocal cords. A synthetic plastic implant is placed in the area as needed in order to provide permanent support to the damaged vocal cords. This procedure is performed on an outpatient basis in our Los Angeles area office. Most patients notice immediate improvements to the strength and quality of their voice.

▶ **Injection:**

- ◇ **Injection Laryngoplasty:** Vocal cord paralysis is a common condition that involves a malfunction in one or both of the vocal cords, resulting in a weakened voice and symptoms such as difficulty swallowing or breathing, as well as coughing. Injection laryngoplasty restores bulk to the affected vocal cord(s) and allows both sides to once again come together to effectively produce a strong vocal sound. This procedure involves the injection of a material, such as fat, collagen or calcium hydroxylapatite, through the skin and into the vocal cord. Most patients achieve effective symptom relief from this procedure.