



Vocal Fold Paresis and Paralysis

Causes

Vocal fold paresis or paralysis results from an injury to the nerve that controls opening or closing of one of the vocal folds. This nerve injury can occur for a variety of reasons. The most common causes are physical injury to the nerve during an operative procedure in the neck, base of the skull, or chest; or inflammation of the nerve, which is thought to be due to a viral infection within the nerve. Other causes may include growth of a tumor along the course of the nerve, causing nerve compression; neurologic disorders causing nerve weakness; or side effects from radiation treatment.

Symptoms, Signs, and Diagnosis

Symptoms of vocal fold paresis or paralysis vary depending on how well your vocal folds are able to come into contact with each other. In cases of vocal fold paresis, symptoms may be subtle and can include vocal fatigue, soft or rough voice quality, difficulty in raising the volume of your voice, or running out of breath when speaking. In vocal fold paralysis, the same symptoms are often experienced, but more severely. For example, you may only be able to get a few words out with each breath. Additionally, about half of people with vocal fold paralysis experience coughing or choking with swallowing or have difficulty swallowing.

Diagnosis is made based on your symptoms and physical exam findings. Laryngoscopy or videostroboscopy are tools that are used to assess the movement of your vocal folds. An accurate medical history is necessary to help determine the cause of vocal fold paresis or paralysis. An imaging study such as a CT or MRI of the neck and chest may be recommended to help determine the cause. Common exam findings include breathy, soft-sounding, or rough vocal quality, reduced or absent movement of one of the vocal folds, incomplete contact between the vocal folds, or unequal vibration of the vocal folds.

Treatment

The treatment of vocal fold paresis or paralysis depends on the severity of your symptoms, as well as the underlying cause and prognosis for recovery. Some cases of vocal fold paresis or paralysis recover quickly or cause only minor symptoms. In these cases, your doctor may recommend close observation with no treatment. In other cases, it may take months for the paralyzed vocal fold to regain motion. In this instance, the most common treatment is injection of a temporary filler into the affected vocal fold. This procedure, called injection laryngoplasty, moves the paralyzed vocal fold into a better position (the “closed” position) so that the normal vocal fold can reach it when you try to speak.

In cases of severe injury, the vocal fold paralysis may be permanent. In these cases, a surgical procedure to permanently move the paralyzed vocal fold into a “closed” position may be recommended. These procedures may include placement of a vocal fold implant, called thyroplasty; rotating the vocal fold joint with a stitch, called arytenoid adduction; a nerve transfer procedure, called laryngeal reinnervation; or an injection of your own fat into the vocal fold. All of these procedures can significantly improve the voice, and in some but not all cases can also improve swallowing difficulties. Your doctor will help you decide on the best procedure for you, as each has its own disadvantages and advantages. In some cases, voice therapy may also be recommended.