

Thyroplasty

A thyroplasty is a procedure performed to help correct vocal cord weakness. Patients with vocal cord weakness may have a weak, breathy voice, and speaking may require considerable effort. Because the vocal folds cannot close completely during swallowing, the patient may also experience coughing and choking while eating or drinking.

The most common cause of vocal cord paralysis or paresis (partial weakness) is partial injury to the recurrent laryngeal nerve. This nerve is responsible for controlling the intrinsic muscles of the larynx. This can be caused from trauma, surgery, viral infection, or other causes. Occasionally a person who has suffered a stroke can develop a vocal cord paralysis.

Treatment: The most effective treatment of vocal cord weakness is a thyroplasty on the side of the nerve injury. This is an operation performed through a small incision in the skin near the larynx. A small piece of thyroid cartilage is removed and a small block of silastic (medical grade plastic) is hand-carved and secured into the cartilage. This block acts as a shim that pushes the vocal fold to midline to improve vocal cord closure.

A thyroplasty is a relatively quick and painless procedure and is usually performed under local anesthetic with sedation. This anesthesia technique allows the surgeon to fine-tune the patient's voice by making minor modifications in the thyroplasty implant. After the silastic block is created and placed into position, a fiberoptic scope is inserted through the patient's nose so that the surgeon can observe the placement of the block. The patient may be asked to speak so that the surgeon can observe the movement of the vocal cords. In approximately one-third of patients, an implant is required in the opposite vocal cord to help strengthen the good side as well.

The procedure requires 1-2 hours to complete. After the procedure, the patient is taken to the Recovery Room for observation and then admitted over night to observe the airway. The patient is discharged from the hospital the following day.

After Surgery: We ask that patients avoid heavy lifting or strenuous activity for one week. Rest the voice by using "confidential" voice. "Confidential voice" is a technique in which one speaks at a comfortable pitch and loudness and refrains from yelling or whispering. It is important to drink plenty of liquids. The incision should remain dry until the sutures have been removed.

Figure 1. Side view (left) and top view (right) of the thyroplasty window created in the laryngeal cartilage.

Figure 2. Side view (left) and top view (right) of the thyroplasty implant secured within the thyroplasty window.