



# the Trumpeteer

An Ear- Responsible Publication of Central Carolina ENT, PA

## Thyroplasty Restores Voice To Patient



Joyce Archer lost her voice in December, 2005 following surgery.

**Q:** What caused you to lose your voice?

**A:** I fell and broke my femur (thigh bone) on the 15<sup>th</sup> of December 2005. And they sedated me for the surgery and when I woke up there was no voice. So I was just whispering and was not able to talk. It was very frustrating. I learned to live with it which wasn't easy since I sang in the choir, I was a people greeter (at Walmart) and that didn't work either.

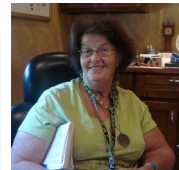
I had to give up my job and it was to the point where I had to go to disability. My husband was frustrated with me...people at church couldn't understand me. I'd go to the drive in window..they couldn't understand me. So my life was

Interviewed By CCENT's J.P. Miller

in a shambles, because I couldn't keep a job. People would just give up and walk away when I'd say something to them.

**Q:** What happened when you went over to the University of North Carolina in 2006 for another evaluation of your voice problem?

**A:** I saw a specialist there and the doctor told me there was nothing that could be done. And I was frustrated there. I was evaluated there three or four different times....The doctor checked my voice sounds and put a camera down my throat and all that stuff. And after hearing that nothing could be done over and over again, I figured why go back.



She got her voice back in January 2007, after a thyroplasty by Dr. Doris Lin.

**Q:** So as luck would have it, you came over the Central Carolina ENT to See Dr. LeLiever about your nose. What did he have to say about your voice issues?

**A:** He kept telling me to speak up. I got frustrated and told him I was doing the best I could. And then He got a new doctor in, a Doctor Lin. So he turned me over to her so that she could follow up on my nose. She said she'd check up on my voice....so she stuck a camera down my throat and got to looking at my vocal cords. She said one side was paralyzed and she was going to see what she could do.

In the meantime she did some "book learning" as she called it and came up with a

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(Archer interview, continued from page1)

solution. She came out with what she wanted to do and discussed it with me. The results are...I had surgery (January, 2007) and she put the largest woman's PVC pipe in my throat and corrected the problem and I'm able to talk as you can hear. I thank God for every moment.

Q: As I understand it, you were awake during this procedure because you had to test out the different sizes of material and the last one she used, was the one you selected. Is that right?

A: That's correct. And she said that I did three different sounds and I was satisfied with the last one and I got to singing 'Jesus Loves Me' and I was satisfied.

Q: Tell me what impact this has had on you and your life?

A: I got friends again...they are actually able to understand me..and I actually sing again at church. I'm not in the choir, but I do sing. I'm enjoying life a lot better. I'm not working at Walmart because I don't want to wear out what I got. And I haven't shut up since.

Q: So this really turned from a hopeless situation to a real positive one...it really is a miracle...there is no other way to describe it, is there?

A: There is no other way, because I wanted a miracle and I found it.

Q: You just have to slow down now a little Mrs. Archer. Why is that?

A: Yes, it's because my trachea is so small and when you look up, it kind cuts your air off, but that's to be expected..its a foreign object. So just enjoy life and thank God.

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## Focus on Hoarseness

By: Dr. Doris Lin



There are many causes of hoarseness ranging from viral laryngitis to throat cancer. Please refer to our website for signs and symptoms of throat cancer ([www.centralcarolinaent.com](http://www.centralcarolinaent.com)). For this issue of the newsletter, we will focus on hoarseness from a vocal cord paralysis.

The vocal cords are located in the thyroid cartilage or “Adam’s apple” and play an important role in regulating your airflow during breathing and voicing. They also must close tightly when you swallow so that food does not go down the “wrong tube.” When a vocal cord is paralyzed, it is no longer moving to open or close. The usual initial symptom is hoarseness, especially towards the end of the day when a person is more tired. The “good” or working vocal cord has been working all day to meet the paralyzed cord to protect your airway when you swallow and to voice. At the end of the day, it may become tired and not able to cross over and reach the paralyzed vocal cord. Patients may completely lose their voice at this time, find it very difficult to project their voice, and may find that food or liquids sneak down the wrong tube (aspiration) causing them to cough whenever they eat.

There are many reasons for a paralyzed vocal cord. Some reasons are: thyroid disease, a vocal cord mass or tumor, a tumor along the vagus nerve (the cranial nerve responsible for motor control of the vocal cord), injury during neck surgery, a viral infection, or a lung mass. A tumor along the vagus nerve could be anywhere from the origin of the vagus nerve at the base of the skull all the way down in the chest where the vagus nerve wraps around the aortic arch before returning to the neck to power the vocal cords. If someone is diagnosed with a paralyzed vocal cord, all possible causes must be researched. If a tumor or growth is not found and someone has not had recent neck surgery, an observation period of a year is recommended. In this case, the vocal cord nerve may have been injured by a virus and there is a chance that function will come back.

What can be done during that waiting period to improve the voice? Voice therapy can help strengthen the good cord and make it more efficient so that it will fatigue less. However, many people need their voice to work and some people may still have aspiration symptoms and need some help to prevent pneumonia from food going down the airway. In this case, a temporary vocal cord filler, similar to getting collagen injections in the face for wrinkles is offered. The paralyzed vocal fold is “bulked” up so that it sits in the middle of the airway. That way, the good cord only has to meet the other cord in the middle, what it was doing before the other vocal cord was paralyzed, and won’t tire as easily. Most of these vocal cord fillers last 3-6 months.

After a year of observation, or if the nerve has been known to be permanently damaged, a more permanent vocal cord procedure is offered called a thyroplasty.

What is a thyroplasty?

In a thyroplasty, the patient’s paralyzed vocal cord is fixed in the middle position using a silastic filler (medical grade plastic). A small incision is made in the neck while the patient is awake but sedated in the operating room. A cut is made in the thyroid cartilage to gain access to the tissues underlying the paralyzed vocal cord. The silastic block is sized to fit the patient. During the operation, the patient is asked to talk to assess the size and comfort of the implant. Once both the patient and surgeon are satisfied, the hole in the cartilage is sewn over and a small drain is placed in the neck overnight. The patient can talk and eat as soon as they’ve recovered from the anesthesia and go home the next day.

The advantage to a thyroplasty is that it can be custom made to fit the patient, is long lasting, and is reversible. Our feature patient has had her implant for almost a year and a half with a great voice and without any difficulty eating.

## Understanding 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.

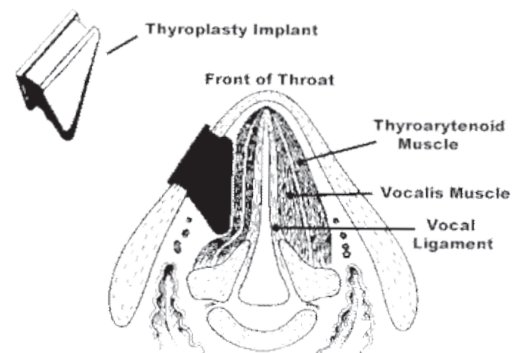
**Treatment:** The most effective treatment of vocal cord weakness is a thyroplasty on the side of the nerve injury. This is an operation performed through a small incision in the skin near the larynx. A small piece of thyroid cartilage is removed and a small block of silastic (medical grade plastic) 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.



Article from [www.gwdocs.com/MungoBlobs/479/808/Thyroplasty.doc](http://www.gwdocs.com/MungoBlobs/479/808/Thyroplasty.doc)



## Summer Fun, Summer Protection

When most people think of summer fun, they think of water. Custom Aquanot swim plugs from Westone Labs are the industry standard for keeping water out of the ear and they're also terrific for virtually any high noise environment. Aquanots may be the perfect all purpose summer custom earpiece. Aquanots sell for \$80 a pair (not including the connecting cord if desired) which includes up to three swirl colors.

A variation on the Aquanot is our style #70AQ. Originally created in response to a surfer's request for swim plus, the #70AQ features a sound channel through the canal and a polypropylene membrane-like window on the face of the earpiece. The membrane allows speech to be heard while stopping water, cold air and wind from getting into the ear. The #70AQ remains especially popular with surfers and is a wonderful option for children taking swimming lessons who want to keep the water out and still hear the instructor. In winter, the 70AQ is great at keeping cold air out of the ears while skiing or snowmobiling!

The glaze that makes the Aquanots shiny can make them more difficult to insert for some patients. For these folks, you can request the "no glaze" or "matte finish" option. The same is true for the Otoblast silicone material. 70AQs are available in "matte finish" only.

Motorcycle riders interested in noise attenuation (approx.20dB) to reduce road and wind noise may enjoy style #4RT. The #4RT is a half-hollowed out, canal style earplug designed to offer maximum comfort under a helmet. You should check your local laws before wearing any occluding earplug under a helmet.

Portions of Article courtesy of Westone Labs, June 2008 newsletter



Aqua Seal Molds



Aqua Seal Glazed



Aqua Seal Matte



#4RT Molds

