Laryngoplasty

How does the voice work?

The vocal cords are tiny bands of muscle inside the larynx or “voice box”. The larynx has 2 sets of vocal cords.

- The **true vocal cords**, which vibrate together to make sound.
- The **false vocal cords** sit above the true vocal cords. They help you to clear your throat and cough.

To have a strong voice, the vocal cords must go together with no gaps. The air from your lungs make the true cords vibrate and make sound. If the vocal cords do not come together, your voice could be weak with a “breathy” or high pitch sound.

When the vocal cords do not work properly, you may have problems when you talk, swallow or breathe. This may be caused by loss of muscle, some types of arthritis or paralysis (unable to move the muscles that control the vocal cords).

Injury to a nerve can also keep the vocal cords from moving. Over time, muscles can shrink (atrophy) and get weak. This problem may happen from an injury or from some types of arthritis.

Problems that may cause the vocal cords to not work properly include:

- Injury to the head, neck or chest from surgery or trauma
- Lung or thyroid cancer (tumors)
- Placement of a breathing tube for general anesthesia
- Stroke, brain injury or neurologic problems

This handout is for informational purposes only. Talk with your doctor or health care team if you have any questions about your care.

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• Aging
• Multiple Sclerosis (MS), Amyotrophic Lateral Sclerosis (ALS) or Parkinson’s Disease
• Infections, such as Lyme disease or Epstein-Barr
• A congenital birth defect, meaning it is present at birth

What is a laryngoplasty?
Laryngoplasty, also known as Laryngeal Reconstruction, is a surgery done to rebuild the vocal cords. This procedure does not make the vocal cord move again, it helps to fix the problem with the vocal cord. Laryngoplasty helps to improve swallowing, the volume of the voice, and decrease choking. It can also help with voice fatigue (tired or worn out from talking).

During the surgery, an implant is placed to push the weak or paralyzed vocal cord closer to the middle of the voice box. The implant is usually put in on one side of the voice box but could be placed on both sides. Most implants are made of silicone or a material called GOR-TEX®. The implant is permanent but could be removed if needed. Another surgery must be done to remove the implant.

What can I expect during surgery?
• You will get IV (intravenous) medicine to help you relax but you will be awake during the procedure. Medicine will be used to numb your nose and the back of your throat.
• A small flexible scope will be put down your nose to see the vocal cords.
• Medicine will be injected to numb your neck and a small incision (cut) will be made close to your thyroid cartilage. An opening will be made into the thyroid cartilage to get inside the voice box.
• The implant (GOR-TEX®) is cut into a thin ribbon and put into the opening. This ribbon will push the vocal cord toward the middle of the voice box. When the cord is in the correct position, the doctor will ask you to make a sound. Small changes can be made to the implant depending on the sound of your voice.
• The doctor will close the incision with stitches. The stitches are placed under the skin and do not need to be taken out.
What should I do before surgery?

Important Medicine Information

Talk to your doctor about any medicines you take to thin your blood or prevent clots. You may need to change these medicines or adjust the amount you take before surgery.

These medicines include:

- Aspirin
- Clopidogrel, brand name Plavix
- Prasugrel, brand name Effient
- Ticagrelor, brand name Brilinta
- Apixaban, brand name Eliquis
- Ticlopidine, brand name Ticlid
- Warfarin, brand name Coumadin
- Enoxaparin, brand name Lovenox
- Dabigatran, brand name Pradaxa
- Fondaparinux, brand name Arixtra
- Rivaroxaban, brand name Xarelto
- Cilostazol, brand name Pletal
- Edoxaban, brand name Savaysa

If you have a stent, do not stop taking your medicines to prevent clots without first talking to the doctor who put in the stent. For more information, ask a member of your health care team for the patient education handout on protecting your stent.

If your surgery or procedure is canceled for any reason, call your doctor because you may need to restart the medicines you take to thin your blood or prevent clots.

Talk to your family doctor before you stop any of your medicines. This includes medicine for:

- Diabetes
- High Blood Pressure

What should I expect after surgery?

- You may have some mild discomfort for 3 to 4 days after surgery. You will be given a prescription for pain medicine before you leave the hospital.

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• Your doctor may also have you take an antibiotic medicine after your surgery.
• You can start walking the day after surgery. Limit strenuous activity for 1 week after surgery.
• Do not lift anything more than 10 pounds for the first week after surgery.
• Your vocal cords may be swollen after surgery. This can make your voice raspy. This problem should get better as the swelling goes away.
• You can use your voice after surgery. Your voice should be better. It may take up to 2 months for your voice to even out. Your doctor may have you do voice therapy with a Speech Therapist to help your voice after surgery.
• Swallowing should improve after the surgery.
• Drink plenty of liquids after surgery. Try to drink 8 cups (8 ounces each) of non-caffeinated liquids a day.
• Eat the same type of foods as you did before surgery. Do not change your diet until after your first follow up appointment with your doctor. The first appointment is usually scheduled for 3 weeks after surgery.

**DO NOT** change your diet after surgery without talking to your doctor. Work closely with your doctor to add foods and liquids.

### When to Call Your Doctor
Call your doctor if you have any of the following:
• A fever over 100.4 degrees Fahrenheit (38 degrees Celsius)
• Bleeding from your mouth
• Problems breathing or noisy breathing
• Complete loss of your voice
• Pain not relieved by your pain medicine
• Problems swallowing