Memorial Sloan Kettering Cancer Center

PATIENT & CAREGIVER EDUCATION

Vocal Cord Paralysis

This information describes the symptoms, diagnosis, and treatment of vocal cord paralysis.

About your vocal cords

Your vocal cords are 2 elastic bands of tissue in your throat (see Figure 1). They're located in your larynx (voice box), which is at the top of your trachea (windpipe). Your doctor can see your larynx and vocal cords by holding a small mirror at the back of your throat (see Figure 2).

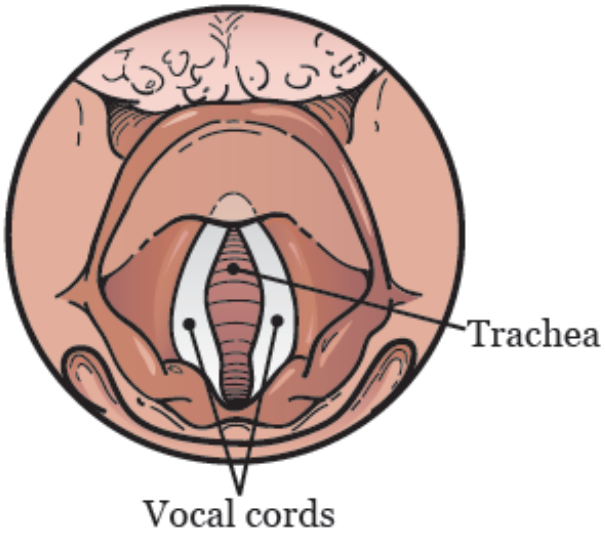


Figure 1. Your vocal cords and trachea



Figure 2. Looking at your vocal cords

Your vocal cords are important for breathing, coughing, making sounds, and swallowing.

- When you breathe, your vocal cords open for air to pass.
- When you laugh, cough, or speak, your vocal cords come together and vibrate. This is how sound is made.
- When you swallow, your vocal cords close tightly. This keeps foods and liquids from going down your trachea and into your lungs.

Vocal cord paralysis

Vocal cord paralysis is when 1 or both of your vocal cords aren't able to move (see Figure 3). It's usually caused by the nerve that controls the muscles in your larynx being

injured. This nerve can be injured by:

- Surgery
- A tumor in your neck, esophagus (food pipe), or lung
- A brain injury (such as a stroke or a tumor)

Sometimes, we don't know what caused the vocal cord paralysis.

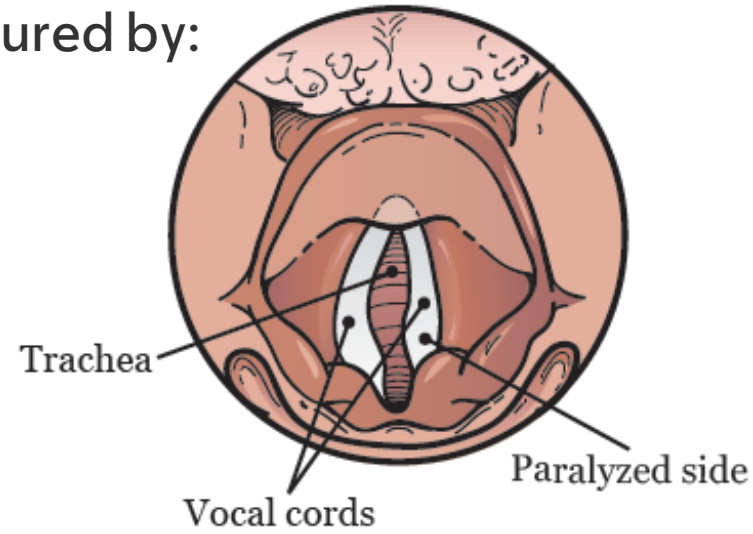


Figure 3. Paralyzed vocal cord on the right

Symptoms of vocal cord paralysis

Vocal cord paralysis may cause any or all of the following symptoms:

- Hoarse, weak, or lost voice.
- Problems swallowing, including choking, coughing, or both. Another term for this is when foods "go down the wrong pipe." Sometimes, this can lead to shortness of breath or pneumonia.
- Weak cough, including not being able to cough up mucus after trying.
- Shortness of breath during exercise.

Diagnosing cord paralysis

Vocal cord paralysis can be diagnosed with an endoscopy. During your endoscopy, your doctor will use a flexible tube with a camera at the end called an endoscope. They will put the endoscope into one of your nostrils and gently move it to your larynx. Once they can see your vocal cords, they will ask you to talk. They will look at your vocal cords as you talk.

Your doctor may also recommend that you have imaging tests. This can help find out what caused the paralysis. These imaging tests may include magnetic resonance imaging (MRI) scan, a computed tomography (CT) scan, or a positron emission tomography (PET) scan.

Treating vocal cord paralysis

Sometimes, the paralyzed vocal cord gets better without any treatment. In other cases, the uninjured, moving vocal cord takes over for the vocal cord that's paralyzed. This usually happens within the first year. Sometimes, the vocal cord is permanently paralyzed.

You may need treatment if you have problems swallowing or if your voice is hoarse. Your doctor may recommend some of the treatments described below.

Voice therapy

Voice therapy uses exercises to strengthen your vocal cords. It teaches you how to use your moving vocal cord to make up for your paralyzed vocal cord.

Injection

You may get an injection (shot) into your paralyzed vocal cord. The material in the injection makes your vocal cord bulkier, which moves your paralyzed cord closer to your moving cord. The injection may help for a few months until your vocal cord recovers.

The injection can be done with a local anesthetic (medication that numbs an area of your body) in your doctor's office. You will make sounds while your doctor listens to your voice and looks at your vocal cords using an endoscope.

Then, your doctor will give you the injection. During the injection, you may feel mild discomfort. Don't speak, swallow, or cough during the injection. It helps if you breathe slowly and try to relax.

You may notice an improvement in your voice while the procedure is being done. Your voice may also sound strained, but it will get better once the materials in the injection spread through your vocal cord. This can take days to weeks. Until then, your voice quality will change

from day to day.

After the injection, you will need to be monitored in the clinic for about 30 minutes to make sure you have no problems.

After your injection

- **Do not eat or drink anything for 2 hours.** You will need this time for your anesthesia to wear off.
- Avoid screaming and whispering. These can irritate your vocal cords.

Surgery

Surgery to move your paralyzed vocal cord is another option. This type of surgery is called a laryngoplasty (lar-en-goh-plas-tee). It may be helpful for people who don't notice a difference after other treatments.

During a laryngoplasty, your paralyzed vocal cord will be moved closer to your moving vocal cord. You will get general anesthesia (medication that makes you sleepy). Your surgeon will make an incision (surgical cut) on your neck on the side of your paralyzed vocal cord. They will put a piece of silicone material to let your moving vocal cord come into contact with your paralyzed one. Together, your vocal cords will make your voice work and protect your breathing passage when you swallow.

You will stay in the hospital overnight after your surgery. There's a small risk of infection and swelling. This can lead to respiratory (breathing) problems. You may get antibiotics to help lower the risk of infection. If you have swelling, you'll be given steroids (medications that may help to reduce the swelling). Your doctor and nurse will give you more details, if needed.

Call your healthcare provider right away if:

- You have a fever of 100.4 °F (38.0 °C) or higher
- You have trouble breathing
- You have shortness of breath
- You have noisy breathing
- You have more problems with swallowing

If you have questions or concerns, contact your healthcare provider. A member of your care team will answer Monday through Friday from 9 a.m. to 5 p.m. Outside those hours, you can leave a message or talk with another MSK provider. There is always a doctor or nurse on call. If you're not sure how to reach your healthcare provider, call 212-639-2000.

For more resources, visit www.mskcc.org/pe to search our virtual library.

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