



## **Botox injection and Laryngeal Electromyography**

Botox is the name used for Botulinum Toxin, which is used to relax the muscles of the larynx in spasmodic dysphonia and a variety of spastic conditions. This is done by injection into the larynx (voice box) through the neck. Electromyography (EMG), which indicates muscle action, is used to monitor muscle activity during the injection.

### **What to Expect During Your Procedure:**

- When you are brought into the procedure room, the physician will obtain informed consent, at which point any further questions you have about the procedure will be answered.
- The procedure consists of the following steps:
  - You will be semi-reclined or will lay flat on the examination chair.
  - Two adhesive skin electrodes will be placed on your neck.
  - The EMG machine is turned on and you may hear a static-like noise.
  - Local anesthesia is administered to the neck or airway through a small needle placed in the front of your neck.
  - A thin needle is then placed through the neck and positioned in the vocal fold.
  - The Botox is injected into the vocal fold.
  - The procedure is repeated on the opposite side if necessary.

### **During the Procedure You WILL Experience:**

- The urge to swallow and/or cough—it is important to try to suppress this as much as possible until the doctor says it's ok.

### **During the Procedure You MAY Experience:**

- Mild to moderate pressure on the insertion of the needle.
- Severe coughing.
- Momentary noisy breathing, which will break with calm breathing through the nose.

*Inability to tolerate the procedure due to any of the above may cause the procedure to be delayed and/or discontinued.*

### **After the Procedure You MAY Experience:**

- Mild discomfort from the procedure and difficulty swallowing from the local anesthesia. This should not last more than one day.
- A bruise on your neck in the location of the injection as well as a small amount of blood-tinged mucus that you cough up.

You may not notice a change in the voice for two to three days, at which time it will most likely become noticeably more breathy. You may have a weak, breathy voice for an average of one to two weeks. This is a normal response. Because of the injection, your vocal cords are unable to come together completely when speaking. You may also find yourself running out of air while speaking. You may also find it difficult to clear your throat. In some cases, you may find that coughing and choking is more common, especially with water. You can diminish the swallowing symptoms by avoiding drinking too quickly. You can drink from a straw with your head in a neutral position or tuck your chin to your chest.

Slowly over time, usually after the initial couple of weeks, your voice will begin to get stronger and smoother. Botox is not a permanent medication, in about three to six months, you will begin to lose the voice again, and may feel the spasms coming back before you or others can hear them. It is always best to have a follow-up appointment in place once you are familiar with the length of time that Botox works for you. Each person reacts differently, so the first dosage is a standard amount, but there are considerable differences in doses and therapeutic longevity between people.