Botulinum Toxin (Botox) for Voice Therapy

Botox (botulinum toxin) injections can be used to treat muscle spasms. Botox works to make muscles weak or partially paralyze the muscles.

Common voice disorders include:

- **Spasmodic dysphonia (SD)** is a disorder that affects the muscles of your Larynx (voice box). The muscles can go into spasms and your voice will sound strained or the voice “cuts out”. In mild cases, it may cause an unstable voice with a change in pitch.

- **Essential tremor** is a disorder that can cause a person’s head, hands or voice to shake. Shaking of the hands and head may be treated with a pill, but treatment for the voice is different.

- **Muscle tension dysphonia (MTD)** happens when the muscles of the voice box are tense and get tight when speaking. The voice is sometimes normal and can be less “choppy” than with spasmodic dysphonia.

- **Respiratory dystonia** is an abnormal contraction or spasm of the muscles that help you breathe (respiratory muscles). This may cause problems with breathing.

- **Aphonia** is when you are not able to talk or make sounds. This can happen when you have problems with your larynx (voice box).

**How is Botox Given?**

Botox is given as an injection into the muscle. The amount of medicine used is very small. After a Botox injection, you may not notice a change for the first 24 hours. The medicine usually starts to work in about 3 to 5 days. **It works best in 2 to 4 weeks after the injection.** It will last up to 4 months. Since the medicine wears off over time, the injections need to be repeated every 2 to 4 months depending on your treatment plan.

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

Your treatment will be planned to treat your voice problem. Some patients do better when both vocal cords are injected at the same time. Other patients have better results when only one vocal cord is injected. The amount and number of times the medicine is given can be different. Treatments are adjusted to help you get the best voice possible.

Your treatment will be done in the clinic. You can eat before and after the injection. No blood work is needed before the injection. Botox only works in the area where it is injected. It should not cause problems with other medicines.

**Possible Side Effects of Botox Treatment**

Common side effects may include:

- Mild “cold like” symptoms.
- A change in your voice may happen if you are sensitive to the medicine. Your voice may become weak and “breathy”. This usually lasts about 1 to 2 weeks but it could last up to 1 month.
- Problems with swallowing could happen. Most of the time this is very mild and does not require a change in the food you eat. It usually lasts about 7 to 10 days.
- Some people may develop antibodies or become resistant to this medicine. If you become resistant to the medicine, your treatment will be changed.
- Using Botox over time may cause the small muscles of your vocal cord to change shape (become bowed). This can cause a weak voice and may require treatment.
- Botox does not work for everyone. Some people will continue to have voice problems after this treatment. The voice may not improve but speaking may become easier.

**What happens during the treatment?**

- The injection is done using electromyography (EMG) guidance. The EMG machine measures muscle activity and will help make sure the medicine is placed in the area of the muscle with the most activity or spasm.
- Most patients sit down for the injection but some may prefer to lie down.
- Your neck will be cleaned with alcohol. An injection (Lidocaine) will be given to numb the area. You may feel a light burning at the injection site.
- You will be asked to say a vowel, such as the letter “E”, to make the muscle contract.
- The Botox is attached to the EMG needle. The needle is placed into the muscle just below the voice box. The needle only goes in less than 1 inch (depending on the thickness of the neck). Most injections take less than 60 seconds per side.
- You can talk during the injection but you should not swallow. This can move the needle out of place.
- You may have pressure or burning in your throat and ear. This should only last a few minutes. This happens because the voice box and ear share the same nerve.
- Sometimes, the injection will be given from above the vocal cords using a special scope. Your doctor will talk to you if this type of injection is needed.

What happens after the treatment?
You may not notice much difference the day of the injection. Starting the day after the injection you need to be very careful with how you eat.

- Take small bites and sips. Make sure you watch for problems with swallowing or choking.
- Chew your food very well. If you do have any changes with swallowing, it usually last about 7 to 10 days.
- **If you have choking or swallowing problems, call your doctor right away.**

Important Things to Tell Your Doctor
Keep a daily log and write notes about how the injections have helped or if you have any problems with the first few injections. This will help to plan for your next treatment. Your dose of Botox will be adjusted to get the best voice for you with little side effects.
Here is the information you will need to track and write down on your daily log.

**Write down how long after the injection you had:**
- Any problems with swallowing
- Problems with a weak or breathy sounding voice
- Any improvements in your voice (stronger or better voice)

**You will also need to write down the following:**
- How long the botox treatment worked
- When the botox stop working