NEUROLOGY GROUP of BERGEN COUNTY

# Botulinum Toxin Injections

Your physician has recommended botulinum toxin injections to treat your neurological condition. Botulinum toxin is a biological substance that occurs naturally in the environment in many forms. Only types A (Botox--onabotulinumtoxinA, Xeomin--incobotulinumtoxinA, Dysport--abobotulinumtoxinA) and B (Myobloc--rimabotulinumtoxinB) are used medicinally. Botulinum toxin has been shown to be helpful in the management of blepharospasm, hemifacial spasm and facial nerve disorders, torticollis (cervical dystonia), writer's cramp, spastic dysphonia, strabismus, limb spasticity, hyperhidrosis (excessive sweating), excessive salivation, overactive bladder, frequent chronic migraines, and facial wrinkles.

The action of the toxin is to attach to nerve endings, ultimately preventing the release of a chemical neurotransmitter called acetylcholine. This effectively blocks the targets of that particular chemical from action—usually muscle (reduces excessive involuntary muscle contraction) and gland (can reduce excessive sweating or drooling). The action is typically partial to allow for "normal" function of muscle. Effects are usually seen to start between 24 hours and 2 weeks and peak around 2-4 weeks. The benefits will eventually wear off in 3 months (in some conditions such as hyperhidrosis and hemifacial spasm it may last 6-9 months) and the injections are typically repeated every 3 months. Repeat injections are not done sooner than three months from the previous injections to limit accumulating doses and minimize the risk of antibody formation.

Typical side effects of botulinum toxin injections can include dry mouth and eye for facial procedures, blurred vision, minor bruising or bleeding that is self limited, aching or pain at the site, neck pain (9% in migraine treatment), transient excessive muscle weakness or lid droop (when used around the eyelids), allergic reaction or distant spread (extremely rare), swallowing difficulty (most often seen in a small number of cervical dystonia patients treated in their neck muscles) and breathing difficulties (rare).

Please be certain to tell your physician if you have had any previous botulinum toxin injections for any reason and when they were performed, if you have had botulism, if you have had vaccinations for botulinum toxin (military), if you use certain antibiotics called aminoglycosides, or if you have certain neuromuscular junction diseases such as ALS, Eaton Lambert Syndrome, Myasthenia Gravis or Guillain Barré syndrome as these conditions may require a dose adjustment or the need to avoid the injections. If you are pregnant or breastfeeding, you should not receive botulinum toxin injections.

The alternatives to botulinum toxin injections for some of the above indications include oral medications and certain types of surgery to include deep brain stimulation. However, botulinum toxin injections are often the primary treatment of choice for many of the conditions discussed and can be used very safely in conjunction with other medications you may be on, including blood thinners. The toxin does not typically interact with other medications, does not rely on liver or kidney functions for clearance (as is often the case with oral drugs) and does not require blood tests before starting treatment. Repeated cycles of injections may be necessary for optimal results.

Anesthesia is NOT necessary to perform the injections.

If the patient typically drives, they may drive themselves home after the procedure.

Only specially trained neurologist physicians in our office perform these injections and they have many years of experience. For any other questions regarding your treatment, please feel free to discuss these with our physician staff.