

## Important Points about Botox in Ophthalmology

- Botulinum Toxin is a potent neurotoxin produced by the bacterium Clostridium Botulinum
- The neurotoxin can cause Botulism which is a serious and life threatening condition in humans. However in small doses it can be used beneficially for certain medical and aesthetic conditions
- Botox works by blocking nerve conduction thereby inhibiting muscle contraction causing weakness of the muscle
- The effects of the Botox usually lasts 3 to 4 months
- Botox injection is not advised for patients with infection at the injection site ,allergy to cow's milk protein or any Botulinum products or formulations. Patients with Myasthenia Gravis and Eaton-Lambert Syndrome should be approached with caution as well as patients taking aminoglycosides, muscle relaxants and anticholinergic drugs. Patients who are pregnant or trying to get pregnant or who are breast feeding are absolutely contraindicated for Botox treatment.
- San Francisco Ophthalmologist Dr Alan Scott MD first pioneered the therapeutic use of Botox for Strabismus (cross-eyes) and Blepharospasm (eyelid twitching)
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- **Blepharospasm** is uncontrolled blinking or twitching of the eyelids which maybe one or both sides and usually disappears during sleep
- Botox injections in very useful in cases where this condition last more than 4 months and there is no underlying disease
- The effect of the injections last three to four months
- Improvement can be seen as early as seven days after treatment
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- **Strabismus** or cross eyes is a common condition in Jamaica
- This condition can be congenital or acquired
- If eyes are not aligned proper vision will not develop
- Botox can be used successfully instead of surgery
- Patients should be selected very carefully as the procedure does not work for everyone
- Children should be chosen who are young at presentation less than 3 years old and who has small to moderate deviation which has persisted for less than 10 months
- An advantage is of not altering the muscle and causing scarring
- A disadvantage however is that the injection takes about six weeks to show clinical improvement.
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- The global market for Botox is expected to reach 4.7 Billion USD by 2018 and that is primarily due to facial aesthetics
- Patients not only want to see good but also want to look good
- Botox injection is used to lessen the appearance of wrinkles and fine lines between the eyebrows, around the eyes and forehead
- This is an in office procedure that often times is combined with the injection of a tissue filler to replace subcutaneous volume
- The effects last 3 to 4 months and results can be seen within a week with significant changes seen in thirty days
- Repeated injections are necessary to maintain appearance
- Botox injections are extremely safe
- Complications and adverse events are rare and usually mild and transient
- Thorough patient assessment, proper treatment dosing, precise injection placement, essential knowledge of adjacent and regional anatomic structures, and, of course, clinical expertise all help minimize the occurrence of the most common complications and adverse effects encountered with Botox injections.



Figure 1: Botox being injected into an eye muscle

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