

## Botox

### Wrinkles and Frown Lines - What creates a wrinkle?

Many wrinkles are actually creases that have been worn into the skin by making the same expression thousands of times. These “expression lines”, often called frown lines or crow’s feet, are due to the contraction of a muscle under the skin in that area. Years of squinting and frowning can leave deep wrinkles that form between the eyebrows and may extend to the bridge of the nose. Wrinkles and frown lines also may appear across the forehead. New studies confirm that facial lines around the eyes, brow, and forehead may not be the result of aging skin, but due to muscle contractions which force the skin into wrinkles. Since some wrinkles deepen and change with expression, it is sometimes difficult to judge how much collagen or fat to inject.

### What is botulinum toxin?

Botulinum toxin, or Botox is an incredible concept in treating early creases in younger skin, deeper lines, or preventing wrinkles as they start. It is ideal for younger patients, male and female, whose skin is just starting to age, as well as older patients who notice forehead creases, frown lines, and crow’s feet. Collagen, fat, and Gortex are effective means of treating wrinkles, but only after wrinkles occur. Botulinum toxin treats existing creases, as well as potential creases before they start. Botox doesn’t just fill in the wrinkle; it treats the muscle that causes the wrinkle. Botulinum toxin improves the appearance of the frown lines between the eyebrows (glabellar creases), the wrinkles at the outside edges of the eyes (crow’s feet), and horizontal forehead creases (worry lines). Botulinum toxin type A and botulinum toxin type B are purified substances, derived from a bacteria which block muscular nerve signals. Injecting very small amounts into specific facial muscles blocks the muscle’s impulse. This temporarily weakens the muscle and diminishes the unwanted lines. The way Botox works is similar to the idea of putting a cut-off switch between an electrical cord and a lamp. Electrical energy must reach the lamp before the light comes on. Muscles work the same way by receiving signals from the nerves. If you’re angry, your nerves signal your frown muscles to contract. Botox simply stops that signal from getting through by acting as a cut-off switch.

### How safe is the Botulinum toxin?

Botulinum toxin is a remarkably safe injectable product. It has been approved to treat spasms of the muscles around the eye since the 1980’s. Botox® has been used safely and successfully in ophthalmology for over 15 years, and for wrinkle therapy for over 10 years. In the amounts used for wrinkle therapy, the only possible side effects are temporary and localized to the area of injection. There have been no allergic reactions, numbness, or systematic side effects at the doses we use. In fact for the past 30 years, it has been used in a safe and effective manner at much higher doses for patients with neuro-muscular disorders. It requires 10 minutes to inject, takes effect in three to five days, and lasts between three and eight months. Botulinum toxin type A is specifically indicated for the lines between the eyebrows, and it also can be effectively used for “off-label” indications in other facial areas.

### Botulinum Toxin Therapy

Botulinum toxin takes effect about 3 to 7 days after treatment. The improvement generally lasts about 3 to 4 months; the effect gradually fades as muscle action returns. Patients require re-injection at various intervals. With repeated treatments, atrophy (thinning) of the muscle may occur. This usually produces longer-lasting results. After several treatments, the effects of Botox® may begin to last longer, sometimes up to six to eight months. For optimal results, botulinum toxin therapy may be used in combination with other cosmetic skin procedures such as chemical peels, laser resurfacing, and dermal fillers. Combination therapy also can help

prevent the formation of new lines and wrinkles. Botulinum toxin is less useful for the smile lines around the mouth because muscle action in this area is needed for important functions such as eating and talking. There is a synergistic relationship between Botox and wrinkles fillers such as Restylane and Juvederm. By restricting muscle activity, dermal fillers last longer. And by using dermal fillers, the Botox effects are prolonged as well. Hand-in-hand they are ideal companion treatments as each boosts the effect of the other.

### **Treatment Areas**

Treatment areas include the vertical lines between the eyebrows and on the bridge of the nose, squint lines at the corners of the eyes (crow's feet), horizontal lines on the forehead, and muscle bands visible on the neck, commonly known as "turkey neck."

### **Are there any side effects?**

Side effects are generally minimal, temporary, and typically relate to the local injection. Soreness or mild bruising, while uncommon, may occur around the injection site. Makeup may be applied after the treatment, but care should be taken to avoid pressing or massaging the area for several hours. A temporary headache is not uncommon after injections in the forehead area, especially after the first treatment. In rare instances, patients may develop weakness of the neighboring muscles leading to a temporary droopy brow or eyelid. All of these possible effects are mild, reversible, and self-limiting.

### **Why do some Botox users look strange?**

Inexperience can lead to a blank or plastic look from an overuse of Botox. Only by careful analysis can a physician determine how much Botox will effectively give the results you want and still not over-do the procedure. The ideal result is one that allows natural expression while still relaxing certain muscles. Your doctor will ask you to squint, frown, smile and even contort your face to see what your muscle intensity is. This is important in determining both placement and amount.

### **What is a Botox Brow Lift?**

A Botox Brow Lift is simple, reliable and one of the most requested Botox procedures. Botox is famous for its ability to lessen frown lines and is fast becoming as well known for its ability to create a "lift" in the brow area and mouth. The Botox Brow Lift is accomplished by stopping the action of selected downward-pulling muscles to allow the upward-pulling muscles to raise the brow. The brow is lifted, more of the eyelid is shown and the entire look is one of a more youthful face. The results can be quite close to those of a surgical brow lift.