

## **BOTOX®**

### **Frown Lines**

When we frown for any reason, we gather the tissue between our eyebrows into a fold. In some of us, this causes a chronic furrow. This produces a frustrated, discouraged, angry look on our faces. This can be distracting to others and bothersome to us.

### **What is Botox®?**

Botox® is the trade name of Botulinum Toxin Type A, a purified toxin produced by bacterium *Clostridium botulinum*. In large amounts, this toxin blocks the nerve impulses to the muscles, causing a form of paralysis called botulism.

By using extremely small doses of Botox®, injected directly into a specific muscle, the muscle will be paralyzed. Therefore, the problem that muscles cause, like a twitch, spasm, or frown line will be stopped.

### **Where do you put Botox®?**

The frown lines between the eyebrows are caused by the action of a muscle called the corrugator. You can feel this as a thickening just below the inside of your eyebrow when you purposefully make yourself frown.

Injecting Botox® directly into this corrugator muscle stops your ability to draw your eyebrows together when you frown. Once the muscle is paralyzed, it cannot contract, and the frown line gradually fades away.

### **How long will it last?**

The actual treatment takes only a few minutes and the Botox® takes effect in three to five days. Gradually over three to five months the Botox® effects will fade, and the muscle action will return. When the frown lines start to reappear, a simple repeat treatment is all that is necessary to maintain the desired result.

### **Can Botox® be used for any other wrinkles?**

Botox® is also effective in treatment of crows feet, forehead and neck folds.

### **Who can perform Botox®?**

Only a physician trained in the use of Botox® should do this therapy.

### **What are the side effects?**

The side effects of Botox® are related to the local injection of the solution. There will be a slight discomfort from the needle entering the skin, and a small chance of bruising at the injection site. There are no reports of damage to the eye, with injection to the eyelid. There have been no permanent side effects from the use of Botox®. Approximately 1% of patients may develop a slight ptosis (eg. drooping) of one eyelid. This is temporary and may not even be noticed by the patient.