



## **Botulinum Toxin Injection, Side Effects and Complications**

### **1. Botulinum toxin injection**

Botulinum toxin injection, approved by the Ministry of Health and Welfare according to the content of the generic drug label, is mainly used to treat adult arm spasticity, eyelid spasm, hemifacial spasm, spasmodic torticollis, muscle spasms caused by cerebral palsy in children, and facial wrinkles such as frown lines.

### **2. Complications or side effects after treatment:**

#### 2.1 Skin condition after injection:

2.1.1 Mild bleeding may occur immediately after injection. Apply pressure with gauze for a few minutes to stop bleeding. Avoid touching the injection site within 6 hours after injection.

2.1.2 Different injection sites may have different side effects. The more common ones include swelling and bruising (crow's feet) at the injection site below the needle, diplopia (crow's feet), drooping eyelids or eyebrows (frown lines, forehead lines), headache (forehead lines), weak chewing muscles or facial muscle weakness (square face). These side effects are temporary and your doctor can evaluate them for you.

2.1.3 The effect after injection will appear after three days or one week. If improvement of the square face is required, it may take longer, about two to four weeks.

#### 2.2 Precautions after botulinum toxin injection:

2.2.1 Try to keep your head upright within six hours after injection, avoid lying down, leaning forward, or exercising.

2.2.2 Avoid exposure to heat sources within six hours after injection, such as washing and blowing hair, washing face with hot water, cooking

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near a gas stove, and receiving other skin heating treatments (such as radiofrequency skin tightening).