

### **Risk of Botulinum Toxin Treatment:**

Although Botulinum Toxin is a poison, the dose used in squint treatment is so low the systemic side effects are unheard of. Local side effects around the eyes are common, especially after a general anaesthetic. Many patients have a little blood at the site of injection (subconjunctival haemorrhage) which settles in a few weeks. 1 in 20 (5%) patients gets a droopy eyelid and 1 in 20 patients (5%) get a vertical squint with double vision. These effects are due to absorption of toxin by nearby eye muscles. The paralysis of the injected muscle gradually wears off over a few months. It is possible to damage the eye itself with the needle, but this occurrence is rare and noted in less than 0.5% of patients.

### **Botulinum Toxin and You:**

Every patient with a squint is different and there may be specific reasons why, in your case, Botulinum Toxin may be more or less useful. You will not always respond to the Botox the same way so just because you do/not have side effects on one occasion that does not mean the outcome would be the same on another occasion. The doctors and Orthoptists will try to advise you. Please ask any questions that have not been explained fully to you.

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## **Botulinum Toxin Treatment in Squints General Anaesthetic Information Sheet**

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**Background:**

Botulinum Toxin A is a chemical produced by a bacteria called Clostridium Botulinum. It has the effect of paralysing muscles. The paralysis is temporary, often lasting a period of months. It has been used for years in the treatment of a variety of muscle disorders and in patients with squints since the 1980s.

**Botulinum Toxin in Squints:**

A squint is a misalignment of the eyes. If you have a squint your eyes do not point in the same direction, this can be a horizontal or vertical imbalance. Eye movements are carried out by 6 muscles in each eye. An injection of Botulinum Toxin into one of these muscles can temporarily weaken (paralyse) it and change the balance between the muscles and straighten the eyes. On some occasions the injection is done under general anaesthetic.

Botox can be useful in a variety of circumstances.

- 1) Where there is a possible risk of double vision after surgery, a trial of Botox to straighten the eyes can assess the likelihood of double vision after surgery. (Diagnostic)
- 2) In some patients who have had previous/multiple surgeries, but still have a squint, often further surgery is not an option. However the squint can be improved with repeated botulinum injections. (Therapeutic)
- 3) Other patients need botulinum injections to be carried out in order to improve the outcome of subsequent squint

surgery and in some cases a series of toxin injections may be curative without surgery. (Therapeutic)

**What happens during the injection?**

You will have seen the orthoptist for measurements of your squint on multiple occasions and been assessed by the consultant who has decided that a Botox injection would be beneficial for you.

On the morning of the injection it is essential that you do not consume any food, a small amount of water is ok but any food in your stomach will prevent the General Anaesthetic taking place.

The injection is carried out by a bendy needle into 1 or more of the 6 muscles attached to your eye ball to try and make the eyes straighter.

There is an increased risk of side effects having the injection under general anaesthetic as opposed to local anaesthetic (while awake) however these after often only short lived.

**What happens after the injection?**

Once you have come around from the general anaesthetic you will be free to leave the hospital. The effect of the injection usually starts after approximately 2 days and the eye moves towards a straighter position. The maximum effect is usually seen at about 2 or 3 weeks, so in the case of diagnostic injections this is when we will wish to repeat your squint measurements. The injection effect will gradually wear off over a period of time, approximately 6

weeks to 4 months. If you are due to have surgery this will not be done before the injection has fully worn off.