

## PATIENT INFORMATION

# Botulinum Toxin (BOTOX®) Treatment for Squint

### What is Botox®?

Botox is the common name for Botulinum Toxin type A. In this country Botulinum Toxin type A is made and sold by several different companies and it is often known by its trade name, e.g. Botox®, Dysport® or Xeomin® etc. In this hospital we currently use Botox®.

### How does Botox® work?

Botulinum Toxin works by temporarily paralysing or weakening muscles, by blocking the nerve to that muscle. That's why it's used for wrinkles, as it weakens the muscles that cause the wrinkling of the skin. In hospitals it is used for treating muscle spasm and tics.

It can also be used to treat some kinds of squint (strabismus). In a squint where one eye turns out (an exotropia), it can be given to the muscle pulling the eye outwards (the lateral rectus) and this may allow the eye to come straighter. Similarly, in a squint where an eye turns in (esotropia), it can be given to the muscle pulling the eye in (the medial rectus) and when this muscle weakens after the treatment, it may allow the eyes to become straighter. It is only very rarely used for squints where one eye points up or down.

### How is Botox® given for squints?

Botox® has been used to treat certain types of squints in the UK since the 1980s.

The Botox® is given to the muscle using a very fine needle which is slid under the white skin of the eyeball (the conjunctiva).

If you are having the treatment, you will first sign a consent form, and then you will be asked to lie down on a table in the treatment room. Anaesthetic eye drops will be given to numb the surface of the eye being treated, and one or two drops will also be given to the other eye to make things more comfortable. These eye drops are cold and they sting a bit to start with.

Then the skin of your forehead and temple will be cleaned with an alcohol wipe, and a sticky pad applied. The pad is an electrode which helps the doctor to hear the electrical activity in the muscle being treated, and this helps make sure that the Botox® is given in the right place. It's better not to wear thick makeup if you are having a treatment, as it will need to be cleaned off in these areas.

When the surface of the eye is numb, you will be asked to look in a certain direction and the Botox® will be given by an injection via a very fine needle pushed into the inner or outer corner of the eye, between the eyeball and the lids. You will feel pushing, which is normally uncomfortable but not painful, and it may take a few minutes to get the needle in the right place. You will be asked to look from side to side to check the position of the needle. Once the needle is in the correct place, you need to hold still for 30 seconds before the needle can be withdrawn.

Afterwards you can sit quietly for a few minutes until you feel ready to leave. You will be given an appointment for the Orthoptists for 2 weeks after the procedure.

**Although the Botox® won't start working straight away it is better not to drive yourself home.**

**When is Botox® used for squints rather than an operation?**

1. To see if it will be safe to do surgery. The Botox® is used to try to move the eye into the position that it would be in after an operation, and when the eye is in this position, we can see whether you would get double vision or not
2. To treat squints that are too small for surgery
3. To treat squints that you are able to (or used to be able to) control yourself, to make them easier to control
4. To treat squints that have been over, or under corrected by previous surgery
5. To treat squints that cause double vision, that we feel would settle with Botox® rather than needing an operation
6. If an operation would be too risky to your general health

**How long does the effect last?**

1. The effects usually come on over 24-48 hours
2. The effects of the Botox usually wear off over 3 months BUT
3. Sometimes the effects can last for much less time or for longer than that AND
4. In certain cases we would hope that the effects would be more of a permanent treatment, e.g. if the Botox® were given to treat double vision, or to help control a squint that you were previously able to control yourself.
5. When Botox® is given as a course of treatments, sometimes the effect lasts for a longer and longer time between each treatment until no more treatments are needed.

**We will discuss your individual case and what you can expect with you**

**What are the side effects and complications?**

1. Sometimes the Botox® has no effect, or has less effect that we hoped, and needs to be repeated
2. Often you will get a droopy eyelid on the treated side (ptosis). This usually lasts for a week or two but rarely can last longer.
3. As the eye moves position you are likely to get double vision (diplopia). If you have double vision you are not allowed to drive.

4. Very rarely the injection can cause very marked double vision (vertical or horizontal) which takes a long time to settle. This sometimes happens if the muscles that move the eye around are unusually close together. It's not possible to predict this effect in advance, but it is rare.
5. The risk of damaging the eyesight is extremely small
6. You may have a red eye at the site of the treatment for a few days
7. The treatment may cause bruising, which very occasionally can be marked (e.g. like a black eye)
8. In extremely rare cases, double vision may be caused that doesn't resolve, and that may require further treatment.

### **What happens if it doesn't work?**

If the Botox® does not seem to have moved the eye, or not moved it enough, then it is possible to repeat the treatment.

If the Botox® worked to move the eye enough, but the effect didn't last permanently, the options are to continue with Botox® treatments, or discuss the possibilities of an operation. Having Botox does not make it more difficult to do an operation later on, but we do have to wait until the effects of the Botox® have worn off completely before doing an operation.

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For further assistance or to receive this information in a different format, please contact the department which created this leaflet.