

Botulinum toxin treatment for squint

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What is a squint?

A squint is a misalignment of the two eyes, so they do not look together towards the same object. An eye may turn in (convergent squint) or turn out (divergent squint). Occasionally one eye may be higher or lower than the other (vertical squint). The squint may be there all the time (constant squint) or only some of the time (intermittent squint).

Why would I need this procedure to correct a squint?

A squint may need correcting for a few reasons:

- To restore ocular (eye) alignment
- To relieve symptoms such as double vision or eye strain from the effort to control the squint (this rarely applies in children)
- To enable the eyes to work together which may improve depth perception (3D vision)

What does a botulinum toxin injection do?

Botulinum toxin causes a temporary, partial or complete paralysis (weakness) of the muscle into which it has been injected. To begin with, you may notice a temporary reversal of your squint, followed by gradual straightening of the eyes as the paralysis wears off. The correction of the squint should last for several weeks and occasionally months.

What are the alternatives?

Squint surgery is an alternative treatment for certain cases, although the effect of surgery is permanent. In some cases, a prism may be offered. Your orthoptist and doctor will discuss with you the best treatments for you or your child.

What is the treatment procedure?

- You will be examined by an orthoptist and then you will see one of the doctors.
- You will be asked to read and sign a consent form and you will usually receive the treatment as an outpatient on the same day.
- You will be given local anaesthetic drops to numb your eye. These drops are highly effective in taking away the surface sensation of the eye, but you might still experience some discomfort when the injection is given, especially if there is scar tissue around the muscle from previous surgery. To prevent this, it may be necessary to administer extra anaesthetic drops on a cotton bud to the muscle just before the injection. Some people find it helpful to take oral painkillers beforehand.
- After the local anaesthetic drops, you will be given a drop to reduce the risk of bleeding when having the injection. This drop also dilates the pupil so you may experience blurred vision and sensitivity to light for a few hours.
- Some electronic probes are attached to your forehead which connect to a speaker – this allows the injection to be precisely placed in the muscle by monitoring the muscle's electrical activity, which is heard as a noise on the speaker.

- During the procedure, you will be asked to lie back on a couch. Keeping your head still throughout, we will ask you to look to one side to place the injection and then to the other side to access the muscle. You will hear a noise from the speaker and the medication is injected. The injection will be held in place for 35 seconds. Occasionally, we may inject more than one muscle.

When should I expect to see an effect from the treatment?

You should notice a reduction in your squint in around two days after the injection.

How long does the effect last?

This can vary, but it usually lasts for weeks, and occasionally months, before it wears off.

Potential side effects:

Nearly all side effects are temporary and improve with time. They include:

- Temporary reversal or change in the direction of the squint;
- Temporary double vision. **Do not drive if you have double vision.** It is very important that you discuss this with the doctor before treatment if driving is of particular concern to you. For more information, please see the double vision and driving section on the DVLA website.
- Temporary drooping of the eyelid on the injected side (this usually recovers after a few weeks)
- Bruising of the surface of the eye – the eye looks red (subconjunctival haemorrhage)
- Bruising around the eye affecting the lids
- Rarely, there may be a scratch on the front of the eye (cornea) from the anaesthetic used before the injection or from accidental injury while the eye is still numb
- Very rarely, the injection can cause permanent paralysis of the injected muscle
- There is an extremely rare possibility of the needle piercing the eye, or significant bleeding occurring around the eye, causing serious eye or vision damage. This risk is no greater than one in 5,000 injections.

Will botulinum toxin affect my general health?

The treatment we give is safe and there is no risk of developing botulism or food poisoning. There is a small potential risk of a serious allergic reaction (anaphylaxis). There is no known risk of harmful effects when the treatment is given to women who are pregnant or breastfeeding, but some patients may prefer to postpone treatment until they have given birth or weaned their child. If you are breastfeeding, we strongly advise that you express your milk to use for 24-48 hours following the injection.

When do I return to the clinic?

We like to see all of our new patients one or two weeks after the injection. If the first injection did not produce an adequate effect, we may offer a repeat injection at that visit. Sometimes we may offer to inject more than one muscle at the first or follow up visit. Please note: there are a few patients that experience minimal or no changes to their squint, despite repeated injections.

Other important information

Botulinum toxin has been used to treat eye disorders for over 30 years. Although botulinum toxin was originally introduced for the treatment of squint in 1979, the manufacturers have never

applied for a drug product licence. We use it on a 'named patient' basis, and records are kept of all injections and patient details. This is one of many examples of a drug with a product license for one condition being used safely and successfully for another condition.

Sources of information

If you have any further questions, please raise these with your orthoptist or the medical team at your next appointment.

If you need urgent advice about your eye(s) following a botox injection, you can contact our eye emergencies telephone line on 0300 131 4500 extension 735644 (Mondays to Fridays between 9am and 5pm). Outside of these hours, call 0300 131 4500 and ask to speak to the on-call eye doctor.

Your comments

We are always interested to hear your views about our leaflets. If you have any comments, please contact the patient experience team by email at esh-tr.patientexperience@nhs.net.

Hand hygiene

We are committed to maintaining a clean, safe environment. Hand hygiene is very important in controlling infection. Alcohol gel is widely available at the patient bedside for staff use and at the entrance of each clinical area for visitors to clean their hands before and after entering.

Other formats

If you require any of our leaflets in alternative formats, such as large print or alternative languages, please contact 0300 131 4434 or esh-tr.AccessibleInformation@nhs.net

After reading this information are there any questions you would like to ask? Please ask your doctor or orthoptist.

Reference

The following clinicians have been consulted and agreed this patient information:

Miss Anastasia Pilat, Consultant Ophthalmologist; Lorraine Manklow, Head Orthoptist; Matron Tracy Daniel, Eye Outpatients Bexhill; Matron Lisa Warner, Eye Outpatients EDGH, Eastbourne.

The directorate group that have agreed this patient information leaflet: Diagnostics, Anaesthetics and Surgery

Next review date: December 2028
Responsible clinician/author: Ophthalmology department (ESHT)
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