NHS
University Hospitals Sussex
NHS Foundation Trust

Botulinum Toxin Injection for Strabismus

Department of Ophthalmology

Patient information

What is this information about?

You have been booked, or are considering, an appointment in our botulinum toxin injection clinic for strabismus (squint). This leaflet is intended to provide general information for patients attending the clinic, particularly for the first time.

What does a botulinum toxin injection do?

Botulinum toxin causes a temporary, partial or complete paralysis (weakness) of the injected eye muscle. As the muscle weakens, its ability to pull the eye in that direction of gaze is reduced, which lessens the misalignment of the eyes.

The effect is temporary. In some patients, particularly those with a recent-onset squint, a single injection may result in a longer-lasting or permanent improvement; however, this cannot be guaranteed and repeat injections or surgery may still be required.

Will botulinum toxin affect my general health?

Botulinum toxin injections used for strabismus are given in very small doses and are generally very safe. Most side effects are limited to the area around the treated eye.

Extremely rarely, the effects of botulinum toxin can spread beyond the injected muscle and cause more generalised muscle weakness (although this has not been reported with use for strabismus). This may include difficulty speaking, swallowing or breathing. If you develop any of these symptoms after treatment, you should seek urgent medical attention.

As with all medicines, there is also a very small risk of a serious allergic reaction (anaphylaxis).

Can I have treatment if I am pregnant or breastfeeding?

Pregnancy and breastfeeding

Pregnancy: There is insufficient clinical trial data to confirm that botulinum toxin is completely safe during pregnancy. We would advise against treatment if you know or suspect you are pregnant. Please inform a member of the team if this applies to you.

Breastfeeding: Research on how much botulinum toxin transfers to breast milk is inconclusive, but the risk to a breastfed infant is considered small. Whether to proceed with treatment while breastfeeding is a personal decision; some patients prefer to defer until they have finished breastfeeding. Please discuss this with your clinician if you have any concerns.

Who will I see at the clinic?

You will first be seen by an orthoptist, who will discuss the aims and risks of the procedure with you and examine your eyes, including measuring the current position of your eyes and documenting any double vision (diplopia).

You will then see an ophthalmologist (eye doctor), who will take you through the consent form and discuss the risks and intended benefits of the injection with you.

What does the procedure involve?

Local anaesthetic drops

You will be given several local anaesthetic eye drops to numb the surface of your eye. These may leave your eye numb for a few hours. The drops numb the surface sensation only, you may still

feel some discomfort when the injection is given, particularly if there is scar tissue around the muscle from previous surgery. Some patients find it helpful to take over-the-counter painkillers (e.g. paracetamol) beforehand.

Electrode monitoring

You will be asked to lie flat on your back on the clinic bed. Small adhesive pads will be placed on your forehead and beside the eye to be injected, connected to electrode wires and a small machine that detects the muscle's electrical signal. This is heard as a crackling sound from a speaker and helps us place the injection accurately into the correct muscle.

The injection

Your eye will be gently held open and you will be asked to look first to one side and then to the other as the injection is placed into the muscle. The injection is held in position for approximately 30 seconds before being removed. You will need to lie flat and still throughout the procedure, but may sit up again as soon as you feel ready.

Please plan to be in the clinic for up to **2 hours.**

What happens after the injection?

A prophylactic (preventative) antibiotic eye drop may be instilled into the injected eye before you leave. Because your eye will still be numb from the local anaesthetic, it is important to protect it, please wear your own glasses or sunglasses to prevent anything blowing into your eye without you noticing. If you do not have glasses, we will provide an eye shield or patch.

After-care advice

- Keep your glasses or eye shield on for at least 3 hours after the injection.
- Remain sitting upright for the next few hours, lying down can allow the injection to spread to nearby muscles, including those that lift the eyelid, potentially causing a temporary drooping of the eyelid (ptosis).
- You may experience mild discomfort around the eye; paracetamol or ibuprofen can be taken as directed on the packet.
- You are safe to drive once your vision has returned to normal following the anaesthetic drops, provided you feel well enough to do so safely. **You must not drive if you have double vision.**

When will I notice an effect?

You should begin to notice a change in the position of your eye approximately 2 days after the injection. The effect usually builds over the following 2 weeks.

How long will the effect last?

The effect typically lasts between 1 and 3 months, sometimes slightly longer, before wearing off completely. Your clinical team will discuss with you whether a repeat injection or surgery is likely to be appropriate once the effect has resolved.

What are the possible side effects?

Nearly all side effects are temporary and resolve with time. Potential side effects include:

Possible side effects

- Temporary change in the direction of the eye misalignment
- Temporary double vision (diplopia)
- Temporary drooping of the eyelid (ptosis)
- A red eye
- Rarely, a scratch to the front surface of the eye (cornea), occurring whilst the eye remains numb from the anaesthetic drops
- Very rarely, permanent paralysis of the injected muscle
- **Extremely rarely,** the needle may pierce the eye, causing serious damage to the eye or vision. This risk is estimated at less than 1 in 5,000 injections.

When should I seek urgent advice?

Please contact the department or attend your nearest emergency eye service promptly if you experience any of the following after your injection:

Red flag symptoms

- Sudden severe pain in or around the eye
- Sudden significant reduction in vision
- Increasing redness, discharge or swelling not settling after 24–48 hours.

What happens next?

If this is your first botulinum toxin injection, you will be given a follow-up appointment with an orthoptist approximately 2 weeks after your injection to assess the effect.

Your individual aims and treatment plan should have been discussed with you beforehand and will be reviewed at this appointment. Depending on the response, your plan may include regular repeat injections or proceeding to surgery.

If the first injection did not produce an adequate effect, we may offer a repeat injection at the next available clinic appointment.

Contact us

Orthoptic Department, Sussex Eye Hospital
Eastern Road, Brighton, BN2 5BF.

If you have concerns outside of department hours, please contact **Sussex Eye Hospital** directly or attend the nearest Emergency Eye Service.

01273 664872

Today's research is tomorrow's treatments.
That's why UHSx is proud to be a research-active Trust.

Find out how you can get involved. Visit our website **www.uhsussex.nhs.uk/research-and-innovation/information-for-patients-and-public** or scan the QR code

This leaflet is intended for patients receiving care in Brighton & Hove or Haywards Heath

Ref. number: 2752
Publication date: 09/2026 Review date: 09/2029

CPIG
carer and patient information group approved