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Adult squint surgery

This leaflet aims to give you important information about your squint surgery. If there is anything you don't understand, or if you have any questions or concerns, please speak to your doctor, nurse or orthoptist (eye specialist).

What is a squint?

A squint is a condition where one eye turns inwards, outwards, upwards or downwards while the other eye looks forwards. The misalignment of the eye is caused by an incorrect balance of the eye muscles. The medical name is 'strabismus'.

What is the aim of surgery?

1. To improve the alignment of your eyes and make the squint smaller in size.
2. In some patients, to reduce or try to eliminate double vision.
3. Occasionally, to improve an abnormal position of the head.

How does squint surgery work?

Surgery involves moving the muscles attached to the outside of the eye to a new position. It may be necessary to operate on both eyes to balance them, even if the squint is only in one eye. The eye is never taken out of the socket during surgery. Stitches are used to attach the muscles in their new positions. These stitches will often dissolve so do not need to be removed. The operation is carried out under a general anaesthetic (you are asleep).

Sometimes, your eye doctor may recommend that you have adjustable stitch squint surgery, where we will reassess the position of your eyes immediately after surgery before tying the stitches firmly into position.

Squint surgery is nearly always a day case procedure, which means you should be in and out of hospital on the same day.

Before the day of surgery

Prior to surgery you will be required to have a pre-operation assessment. This is to ensure you are fit for surgery; to answer any questions you may have and provide information on the operation and plan for your discharge. The assessment will involve a basic health check; the pre-op assessment nurse will take a medical

history, including current medication, and perform investigations as required. Some patients may require a review by an anaesthetist prior to surgery. The pre-op assessment is valid for 6 months. You will be given instructions for the day of surgery. You will also have a pre-op appointment with an orthoptist to check that the measurements of the squint have not changed since you were listed for squint surgery.

On the day of surgery

You will be asked to come early so that you can be prepared for surgery. Most surgery takes place in the morning; therefore, you should not eat or drink from midnight the night before the operation. You can drink clear fluids up to two hours before the operation. We will explain the exact timings to you before the day of the operation. Before being discharged after your operation, you will receive eye drops with instructions and a follow-up appointment.

What are the benefits of having surgery?

- To help the eyes to work together.
- To relieve diplopia (double vision).
- To improve the alignment of the eyes (and therefore their appearance).

Please note that squint surgery is not intended to alter the ability of the eye to see.

What are the risks of surgery?

Squint surgery is generally a safe procedure. However, as with any operation, complications can and do occur. Generally, these are relatively minor but on rare occasions they may be serious. Please remember that the complications listed below are detailed for your information; most people have no significant problems following squint surgery.

- **Under and over correction:** As the results of squint surgery are not completely predictable, your original squint may still be present (‘under correction’) or the squint direction may change (‘over correction’). Occasionally, a different type of squint may occur after squint surgery. Most eyes will be straighter after surgery. In some cases, another procedure may be required to get the best cosmetic result.
- **Double vision:** You may experience double vision after surgery as your brain adjusts to the new position of your eyes. This is common and often settles in days or weeks but occasionally take months to improve. Occasionally, patients may continue to experience double vision when they look to the side to achieve a good effect when the eyes look straight ahead. Rarely, double vision while looking straight ahead can be permanent, in which case further treatment might

be needed. If you already experience double vision, you might experience a different type of double vision after surgery. Botulinum toxin injections are sometimes performed before surgery to assess your risk of this.

- **Allergy/stitches:** Some patients may have a mild allergic reaction to the medication they have been prescribed after surgery. This results in itching or irritation and some redness and puffiness of the eyelids. It usually settles very quickly when you have finished your course of eye drops. You may develop an infection or abscess around the stitches. This is more likely to occur if you go swimming within the first four weeks after surgery. A cyst can develop over the site of the stitches, but this normally settles with drops until the stitches absorb. Occasionally further surgery will be needed to remove it.
- **Redness:** The redness in the eye can take as long as 3 months to go away. Occasionally, the eye does not completely return to its normal colour. This is seen particularly with repeated operations. Redness has no bearing on the success of straightening the eyes.
- **Scarring:** Most of the scarring of the conjunctiva (the skin of the eye) is not noticeable after 3 months following surgery, but occasionally visible scars will remain, especially with repeat operations. You should not wear contact lenses for 4-6 weeks following your operation.
- **Pupil dilation:** Rarely, after an operation for a vertical squint you may notice that the pupil is slightly larger or a slightly different shape on the operated side.
- **Lost or slipped muscle:** Rarely, one of the eye muscles may slip back from its new position during the operation or shortly afterwards. If this occurs, the eye is less able to move around and, if this is severe, further surgery may be required. Sometimes, it is not possible to correct this. The risk of slipped muscle requiring further surgery is about 1 in 1,000.
- **Needle penetration:** If the stitches are too deep or the white of the eye is thin, a small hole in the eye may occur. This may require antibiotic treatment and possibly some laser treatment to seal the puncture site. Depending on the location of the hole, your sight may be affected. The risk of the needle passing too deeply is very low (about 0.1-1% risk). Please note that this risk is higher if you have a thin sclera (the dense connective tissue of the eyeball that forms the ‘white’ of the eye), for example if you have had previous squint surgery or are very short sighted.
- **Anterior segment ischaemia (poor blood supply):** Rarely, the blood circulation to the front of the eye can be reduced following surgery, producing a

dilated pupil and blurred vision. This usually only occurs in patients who have had multiple surgeries. The risk is about 1 in 13,000 cases.

- **Infection:** Infection is a risk with any operation and, although rare, can result in loss of the eye or vision.
- **Loss of vision:** Although very rare, loss of vision in the eye being operated can occur following squint surgery. Risk of serious damage to the eye or vision is approximately 1 in 30,000.

Anaesthetic risks

Anaesthetics are usually safe but there are small and potentially serious risks. Unpredictable reactions occur in around 1 in 20,000 cases and unfortunately death in around 1 in 100,000. The details of anaesthesia will be given to you separately before your operation.

Types of squint surgery

There are two kinds of squint surgeries – non-adjustable and adjustable.

Non-adjustable surgery: Squint surgery is usually carried out under general anaesthetic and generally takes up to an hour, depending on the number of muscles that need surgery. When you have recovered from the anaesthetic and the nurses are happy for you to be discharged, you are free to go home, which will usually be a few hours later.

Adjustable surgery: Squint surgery using an adjustable stitch may give a better result in certain types of squint, for example, for patients who have had a squint operation before, those at higher risk of developing double vision after their surgery, or those with a squint due to injury or thyroid eye problems. However, the redness in the eye often takes a little longer to settle down after adjustable surgery.

- **Part 1: The main operation:** The main part of the operation is carried out in the operating theatre, usually under general anaesthetic (with you asleep).
- **Part 2: Adjusting the stitch:** The final position of the muscles is adjusted once you have woken up from the anaesthetic and are able to look at a target. **If you wear glasses for distance or near vision, please bring these with you** for this part of the operation.

  Adjustment is usually done on the ward, after anaesthetic drops have been put into your eye to take away any pain. However, you may feel some pressure or discomfort temporarily as the stitch is adjusted.

Does the surgery cure the squint?

Overall, about 90% patients feel some improvement in their squint after surgery. The amount of correction that is right for one patient may be too much or too little for another with exactly the same size squint, so your squint may not be completely corrected by the operation. Although your eyes may be straight just after surgery, many patients require more than one operation in their lifetime. If your squint returns, it may drift in either the same or opposite direction. We can't predict when that drift may occur.

Does the surgery cure the need for glasses or a lazy eye?

No, the operation does not improve your eyesight or need for glasses.

Are there any alternative treatments?

Most squints are treated as soon as possible (during childhood) to improve the chances of successful treatment.

Common treatments include glasses and eye exercises.

Some squints may benefit from an injection of botulinum toxin (Botox) into one of the eye muscles. However, the effect of this is usually temporary, and can be used to help plan for squint surgery. For some patients who have had previous squint surgery, it may not be possible to have more operations, and you may benefit from having repeat Botox injections instead. If these have been tried and have not worked, then surgery may be the only option.

What happens on the day of surgery?

As the operation is done under a general anaesthetic, you will be advised of the fasting period before your admission and whether to take any medications you may be taking for other health conditions.

You will need to arrive at the eye unit by 7.30am for morning surgery or midday for afternoon surgery, in order to see the anaesthetist and the surgeon. They will talk to you about the operation and make sure you are fit for the general anaesthetic. If you are happy to go ahead with surgery, we will ask you to sign your consent form.

Going to the operating theatre

You will be asked to remove your clothing apart from your underpants and to wear an operating gown.

Please do not wear make-up or metal hair clips or grips on the day of surgery.

The operation takes between 40-60 minutes to perform, although the time you spend in the operating department will depend on the time it takes to anaesthetise you and for you to wake up afterwards. This can vary between individual patients.

What to expect after the operation

After your operation, your eye will be covered with an eye pad and plastic shield. This usually remains in place until the following morning. When this pad is removed, it is likely to be blood-stained. Your eye may be bloodshot and sore after the operation and may weep blood-stained tears for a few days. Do not worry as this is entirely normal.

Your eye(s) may be swollen, red and sore and your vision may be blurry. Your eye may be also quite painful. Take painkillers such as paracetamol and ibuprofen as necessary. It is a good idea to stock up on your regular painkillers before your procedure.

The pain usually wears off within a few days. The redness and discomfort can last for up to 3 months, particularly with adjustable and repeat squint operations.

You will be asked to use eye drops or eye ointment for up to 2 weeks after the operation. The drops are antibiotic and anti-inflammatory to prevent infection, reduce swelling and relieve pain. You will be shown how to use these drops before you leave the ward. Putting in eye drops/ointment in the operated eye usually begins the morning after the operation.

It is normal for most adult patients to be discharged from the hospital on the same day as their surgery.

Aftercare advice

- Always wash your hands before and after cleaning your eye or putting eye drops in.
- Regular painkillers such as paracetamol and ibuprofen are recommended for 3-4 days after the operation. Follow the dosage instructions on the packet.
- Please do not rub or cover the eye as this may loosen the stitches or cause an eye infection.
- If your eye is sticky, use cooled boiled water and a clean cosmetic pad to bathe it. If both eyes were operated on, use a different pad for each eye.
- Use eye drops or ointments as instructed.
- Please remember, in the first few days after surgery, your tears may be blood-stained.
- Your eye may appear red or pink for several weeks – this is normal.
- **If you experience severe pain, a heavy pus discharge or marked loss of vision, contact us as soon as possible (numbers at the end of this leaflet) or go to Eye Casualty or the Emergency Department (A&E), immediately.**
- Avoid water entering your eyes from the bath or shower for the first week and don’t swim for 4 weeks.

- Avoid wearing contact lenses in the operated eye(s) until you are advised it is safe to do so by your doctor or orthoptist.
- Continue using glasses if you have them.
- Avoid smoky, gritty, or dusty atmospheres
- **Please attend your post-operative (follow-up) clinic appointment.**

Resuming activities

- You should be able to return to work after about a week.
- Avoid vigorous sports and swimming for up to one month after the operation.
- Do not sign any legal documents or drive for 48 hours after a general anaesthetic.
- Do not drive if you have double vision.
- Follow any advice given to you by the orthoptist.
- You should return to wearing your glasses as soon as possible, unless advised otherwise by your orthoptist.
- It is safe to use your eyes for visual tasks such as reading and watching TV.

Follow-up

Our Orthoptic Team will arrange your follow up appointment in the outpatient clinic for around two weeks after your surgery. This review will be with the Orthoptic Team. The surgeon is usually available in clinic if there are any problems or concerns. If you do not receive an appointment, please contact the Orthoptic Department on 0118 322 7169 Option 1 followed by Option 2 on Monday to Friday between 8.30am and 4.30pm

If you have a problem…

If you have a minor eye problem, please seek advice from your GP, optician or pharmacist. If urgent, please attend Eye Casualty or call 111.

Eye Casualty (Reading):	Mon-Fri 8.00am to 5pm; Sat & Sun & bank holidays 9am-12.30pm; Closed Christmas Day and New Year’s Day.
Eye Casualty: Prince Charles Eye Unit (Windsor):	Mon-Fri 8.00am to 5pm; Sat 8.30am-12.30pm; Closed Sun & bank holidays.
Dorrell Ward (Reading):	0118 322 7172 (24 hours a day)
Eye Day Unit (Reading):	0118 322 7123 (Mon-Fri 7am to 6pm)

Contact us

If you have any questions, please ring 0118 322 7169 Option 1 followed by Option 2 on Monday to Friday between 8.30am and 4.30pm.
Orthoptic Department, Level 2 Eye Block, Royal Berkshire Hospital

To find out more about our Trust visit www.royalberkshire.nhs.uk

Please ask if you need this information in another language or format.

RBFT Ophthalmology/Orthoptic Department, August 2025
Next review due: August 2027