**Introduction**

This booklet is to give you information about squints and squint surgery, and what will happen to you now you have been referred to the squint clinic by your GP or from one of our other clinics. We hope you will find it helpful to read.

We hope this information will answer many of the questions you have. If you have questions which are not answered here the staff in the eye surgery unit will be happy to try and answer them for you.

**The Eye Care Team**

An **Ophthalmologist** is a doctor who specialises in eye disorders.

An **Orthoptist** is a professional specifically trained to assess children and adults with squint and ‘lazy eyes’. The Orthoptist may be the person who is most closely involved in your or your child’s care.

An **Optometrist** (Optician) tests for and prescribes glasses, and may also examine the eyes.

1. **Squints and squint surgery**

**What is a squint?**

A squint is when one eye is out of alignment, i.e. one eye looks straight ahead whilst the other points in, outwards, up or down. Squints may be constant (obvious all the time) or intermittent (only seen from time to time). Most squints develop before 3 years of age, but sometimes they develop later. The medical term for squint is ‘strabismus’.
Squints can affect the eyesight in childhood, as the brain will begin to ignore a squinting eye, causing the sight in it to be worse than in the other eye. This is what is meant by a ‘lazy eye’ (amblyopia).

In older children and adults, a new squint, or one that is getting worse, may cause double vision (diplopia) or, less often, headaches and ‘eye strain’.

**Treatment**

**Glasses**

All children and most adults with a squint need to be tested for glasses. *If glasses are prescribed, they should be worn all the time from waking till bedtime,* even for PE at school, unless there is a really good reason why not. Glasses may make it easier for a child to join in with the lessons.

In children a hospital glasses test needs eye drops that dilate the pupils and blur the vision for a few hours.

Some squints can be treated by glasses alone and will not need an operation. Glasses can sometimes improve the squint and/or improve the eyesight which then makes it easier to control the squint.

The Orthoptist will need to examine you or your child in glasses to see if the glasses have affected the eyesight and the squint.

If the squint is corrected with glasses it will still be noticeable without glasses. It is not possible to do an operation in these cases to make the eyes straight in and out of glasses. In some cases glasses have no effect on the squint, but they may still be needed to obtain the best vision.

**Treatment for a lazy eye (children only)**

Once glasses have been prescribed and the optometrist or doctor has examined the eyes, the Orthoptists will tell you if your child needs to have treatment for a lazy eye, or to prevent one developing. This is usually a patch worn for some hours a day over the eye with better sight although sometimes other treatments are used such as eye drops.

Patching treatment is **not** a treatment for squints and does not straighten the eye, but it is very important, as it is the only method we have of improving the sight in the ‘lazy eye’. Patching can be carried out until approximately 7 years old, although sometimes it is continued or even started later than this.

**Operation**

If the squint is still obvious (with glasses, if worn) then an operation to improve the appearance or the way the eyes work together as a pair may be considered. Before surgery can be done, any glasses that have been given need to be being worn well, and patching treatment needs to be being done well.

A squint operation will not usually improve the eyesight.

It can usually be done at any time once glasses and patching have been established.

In a few children who have had a squint from a very early age, early surgery may be suggested to try to line up the eyes so that they learn to work as a pair and give some 3D vision. This is normally planned for when the child is about 18 months old.
Children who wear glasses will usually still need to wear glasses after the surgery and may still need patching.

In older children and adults, squint surgery may be offered for visual problems (such as double vision or difficulty controlling a squint causing blurring or discomfort) or for cosmetic reasons.

A squint operation may be performed on one or both eyes. Sometimes it is necessary to do surgery on the eye that seems to be straight to get the best result. Your surgeon will explain the plan to you at a clinic appointment before the operation.

Please see later on in this leaflet for more details of squint surgery.

2. Your Outpatient appointments

During your appointment in the Eye Clinic, you or your child may need to see the Orthoptists, the Optometrists and the Doctor. The appointment may take a few hours, and drops may be used, so please do not drive yourself if you are the patient. Most children and adults will be followed up by the Orthoptists and optometrist, only seeing the doctor if it is necessary. Follow up may be for some years.

If you have been put on the waiting list for squint surgery, you will have at least one further appointment, for a medical pre-assessment to check you are fit for surgery. If you are unable to keep any date you have arranged with us, please let us know with as much notice as possible so another patient can use the appointment and yours can be rearranged. Our phone number can be found at the back of this booklet.

At the medical pre-assessment check, you will be asked questions about your eyesight, medical history and drugs you are taking. We also need to know if you have any drug allergies. The nurses will ask you about your personal circumstances to ensure it is safe for you or your child to have day case surgery, and ensure you or somebody else will be able to put in your or your child’s drops.

Please bring with you the following:

- The drugs which you or your child currently take
- The completed medical questionnaire inserted in the centre of this booklet
- This booklet

Do ask questions during any stage of any visit.

After this appointment we will contact you to confirm a date for surgery. You will also be asked if you are available at short notice in case of cancellations as we always do our best to fill the slots so we do not waste the resources of the NHS.

If you realise you cannot keep the date made please phone us (for the number see back of booklet) to arrange a different date.
Squint Surgery

Squint surgery is performed under a general anaesthetic (with you or your child asleep). It normally takes between 30 and 90 minutes, depending on how much surgery is being performed.

During the operation, the muscles that move the eye are exposed by lifting the skin on the white part of the eye (the conjunctiva). Once the muscles have been exposed, the muscles are weakened or tightened. The muscles are sewn into place using a dissolvable stitch and the conjunctiva is sewn back down on top, with dissolvable stitches. Afterwards, the eye will be red over the muscles that have been moved and there will be some pain, grittiness and soreness. This is usually much better by the day after the operation, especially in children.

If the operation is your second or third squint operation, the redness will be marked, and the eye may be very painful after the surgery.

You or your child will need to use drops for a few weeks after the operation and you will be given an appointment with the Orthoptist for 3 weeks after your surgery. It is normal to feel wobbly and even to have double vision after the surgery. Both of these should settle down within a few days to a few weeks.

Adjustable Stitches

In older teenagers and in adults we usually use a type of surgery where a small adjustment can be made when you are awake late on the day of surgery. This is the best way to ensure a good result, and reduce the chance of complications.

The operation is done whilst you are asleep, as normal, but one stitch is left in a bow rather than being tied in a knot. At the end of the day of your admission, when you are awake, the eye is numbed with eye drops and some measurements are taken to look at the position of the eye, and we ask about double vision. If everything is fine, no adjustment is necessary.

If an adjustment is needed, the stitch may need to be loosened or pulled tighter using local anaesthetic eye drops. This is not painful, but can be uncomfortable. There are no needles or blades involved. This will be discussed with you before the day of surgery, and if you feel you would not be able to cope with the adjustment you will have an opportunity to discuss other options.

3. Consent for your operation

This section gives you information you should know before agreeing to undergo surgery. We encourage you to read this and ask any questions which may arise before signing the Consent Form to agree to you or your child having have squint surgery.

Benefits

The benefit of a squint operation is to help the eyes stay straighter, with glasses, if worn.

Other benefits may be a reduction in the severity or frequency of double vision, if you or your child have this, or an improvement in the control that you have over the squint. In a very few young children a benefit may be allowing the eyes to work together as a pair. This specific case will be discussed with you in detail.
Risks

As with every operation, squint surgery has risks, all serious complications are rare

- The main risk is the risk of needing another operation or operations, this may be soon after, or up to many years after the first operation
- The squint operation may overcorrect or undercorrect your squint
- The squint operation may give you double vision

In Torbay regular audits of our surgery are done to ensure we meet acceptable national standards.

Complications during the operation (all very rare)

- There may be bleeding during the operation causing a red eye and bruising of the face
- One of the eye muscles may slip and be difficult to find during surgery causing a bad result
- One of the sharp instruments used during the surgery may pierce the wall of the eye ball
- An incorrect muscle may be operated on because of unusual anatomy or previous surgery
- It may not be possible to perform as much surgery as is needed because maximal surgery has already been performed during a previous operation.

Complications occurring after the operation

- Obvious over or under correction of the squint
- Double vision which does not settle within a few weeks at the longest
- Inflammation or infection of the eyeball causing loss of vision
- Damage to the sight of the eye
- Cyst formation at the site of the dissolvable sutures
- ‘Slipped muscle’ - the eye is in a good position after surgery, but then suddenly worsens again in the days following surgery.

Our estimates of the risks

- Need for another operation: 1:4 - 1:5
- Permanent damage to the sight: 1:3,000
- Slipped muscle/cyst formation/infection: Very Rare
- Serious complication of GA in fit person: 1:100,000

4. The day of your operation

Date agreed...........................................

We will have sent you confirmation of the date of your operation and instructions about where to go and at what time. Please read that letter carefully. Adults will usually need to report to the Eye Surgery Unit, and children to the Day Surgery Unit. You must ensure you have transport arranged to bring you to the hospital and take you home again. The hospital car service is available if you have a specific medical need.

You will be met by the nurses who will care for you. The Eye Surgery Unit and Day Surgery Unit perform most surgery as day cases. This means you will be with us for part of the day only.

When you arrive we will be able to advise any companion who has accompanied you of the time you are likely to be ready to go home.
You will meet the surgeon who is to do your operation and he/she will confirm that you still want the operation and answer any questions you have before asking you to sign the Consent Form. **Children need to be brought to the hospital by someone who has parental responsibility so that they can sign the consent form.**

The anaesthetist will also visit you and ask you some questions about your health and discuss the anaesthetic procedure.

It is important that you discuss any concerns and ask any questions you have.

After the operation you will return to the Eye Surgery Unit or Day Surgery Unit. If you are having adjustable sutures you will have a pad over your eye. This pad should stay in place until you have the adjustment procedure (between 5pm and 6pm) and then the doctor will replace it.

Children will not have an eye pad after the operation, it is common for them to have blood stained tears whilst they are waking up from the anaesthetic.

Before you leave you will be given an appointment for 3 weeks’ time with the orthoptists. Most patients are comfortable after the operation but if necessary you can take paracetamol and ibuprofen (‘Calpol’ and ‘Nurofen’ or similar for children). It is common to feel slightly unsteady on your feet at first while you get used to the eye pad or the new position of the eye so please take care when moving around.

If you need to stay overnight, you will go to a bed on a surgical ward (adults) or Louisa Cary ward (children) after your operation.

**5. After your operation**

You may remove the pad when you get up the day after your surgery. It is normal for your vision to be blurred or double for some time, but this should slowly improve over the days following surgery. **If the blurring is severe or worsening you should phone for advice.** You should start using the eye drops when the pad comes off.

**6. Advice after your operation**

Your eye should become less red and more comfortable day by day. If your eye becomes very red and painful or if you notice a sudden or marked deterioration in the vision of your operated eye please ring the Eye Surgery Unit (01803 655143) immediately for advice (8.30am - 5pm).

If you have an emergency between 5pm and 8.30am or at a weekend, ring the hospital switchboard 01803 614567 and ask to speak to the on-call Ophthalmology Doctor.

**Driving**

You may drive 48 hours after a general anaesthetic providing that with both eyes open you meet the legal visual requirement for driving. This is the ability to read a number plate at 20 metres without double vision. **You should not drive if you are experiencing any double vision.**
Eye drops

Please follow the instructions given by the nurses after your or your child’s operation. This is normally:

- Pred Forte eye drops and Chloramphenicol eye drops four times a day to the operated eye(s)
- We will tell you if we want you to do anything different to this
- The drops should last a month but if they are running low, please get a repeat prescription from your GP
- Please bring your drops when you attend clinic
- Please continue any other eye drops you usually use (e.g. for glaucoma)

Cleaning the eye

Use a clean piece of cotton wool and cooled previously boiled water to clean your eyelids. Wipe gently from the nose outwards then discard the cotton wool and repeat as necessary. Use separate cotton wool for each eye.

You may do any activities apart from swimming, very vigorous contact sports exercise such as rugby or contact martial arts, or activities where you might get mud or dirt in your eye. You should not swim for 3 weeks. You should not rub your eye vigorously. You will be given a certificate, if you are working, for 2 weeks off work.

Children can return to school on the Monday following the surgery on Thursday and may join in P.E.

Useful phone numbers

Eye Surgery Unit  01803 655143
(Mon – Fri  8.30am – 5pm)

Day Surgery Unit  01803 655508
(Mon – Fri  8.30am – 5pm)

Hospital switchboard  01803 614567

Miss Sleep’s Secretary  01803 655141

Eye Casualty Nurse 01803 655088 Option 5 (Mon – Fri 9am – 5pm)

Orthoptics
01803 655337 (Monday-Thursday)
01803 655122 (Friday)
**Tear out - Medical Questionnaire**
Please complete this and bring to your medical assessment

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<tr>
<th>Do you or have you suffered from</th>
<th>Yes</th>
<th>No</th>
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<tr>
<td>Urinary tract infections?</td>
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<td>Excessive bruising or bleeding?</td>
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<td>Skin ulcers or infections?</td>
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<td>Diabetes?</td>
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<td>Chest pain on exercise or at night?</td>
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<td>Asthma or bronchitis?</td>
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<td>High blood pressure?</td>
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<td>Heart attack or angina?</td>
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<td>Fainting easily?</td>
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<td>Convulsions or fits?</td>
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<td>Jaundice?</td>
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<td>Arthritis?</td>
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<td>Wobbly teeth?</td>
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What other serious illnesses have you suffered?

What drugs are you taking?

What allergies do you have?

Thank you for completing this Form. Please remember to bring it to your appointment.

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