

## PATIENT INFORMATION

# Squint (Strabismus) Surgery – Information for Patients

A squint is the name for a problem with the eyes where one eye turns in, out, up or down and is not in line with the other eye. This might happen all the time (constant), or some of the time (intermittent). The medical term for a squint is **strabismus**. Sometimes people use the word 'squint' to mean a screwed-up eye, or a droopy eyelid, but at the eye clinic we use the word to mean a turn in the eye.

Not all squints need surgery. Some squints that are small, or that aren't there all the time, or that are fully controlled by glasses, or that aren't causing too many problems, do not need surgery. Sometimes the risks of squint surgery might outweigh the benefits.

You have been given this leaflet because squint surgery is a possibility for you. The leaflet will help you to decide if you want to go ahead, and give you the information that you need to help you make that decision.

### Why is squint surgery needed?

Squint surgery might be needed for one or more reasons:

1. To make it easier for you to keep your eyes straight if your eyes have an underlying tendency to turn in or out, which you can only control for less than 50% of the time.
2. To help get rid of double vision. If you have developed a turn in the eye that causes you to see double, squint surgery can help to straighten the eyes and help you to see a single image again.

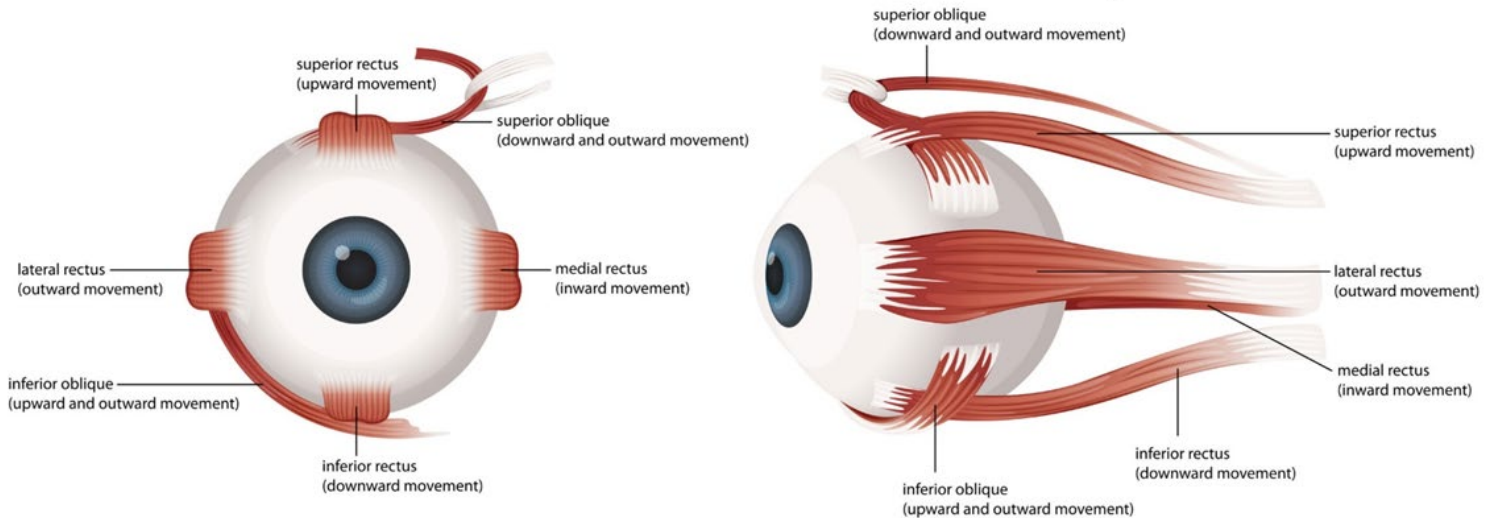
3. To help straighten the eyes if your eyes are still turning despite wearing glasses. In this case the operation will be to help straighten the eyes when you are wearing glasses or contact lenses (not when your glasses are off).
4. To help straighten the eyes if the appearance of the squint is very noticeable or bothersome to you. This is often the case if you have already had a squint operation in the past but the appearance has now changed.
5. Sometimes squint surgery is done to help straighten a head tilt or turn that you are using to help your vision.

The team will discuss with you and you what the reason is for offering squint surgery to you, which of your symptoms might be improved, and what outcome can be expected.

**Important things to remember:**

1. Squint surgery does not improve the straight-ahead vision (**visual acuity**)
2. If you need glasses, they will still need glasses after surgery. The strength of the glasses needed afterwards can sometimes be a bit different to before surgery.
3. It's really important to realise that although you might only need one operation, a significant number of people will need more than one operation, over time, for their squint. We think that about 1 in 4 or 5 people go on to need two or more operations (20-25%). As an adult, this might already be your second operation, or more. This means that even if you make the difficult decision to go ahead now, you will still need assessments at the hospital, and may need other treatments. Unfortunately, it's not a case of 'do it now, then it will be fixed for ever'.

# Muscles of the Human Eye



## What happens during squint surgery?

The operation is done under general anaesthetic (asleep) as a day case procedure. You will have a pre-assessment appointment before the day you are due to come in, and the nurse will be able to explain what will happen before and after surgery.

The operation will usually take place on a Thursday morning and you will normally be able to go home in the early afternoon. You will be seen by the surgeon and the anaesthetic doctor (**anaesthetist**), the one who will be giving the anaesthetic, before the operation.

Each eyeball has 6 muscles attached to it which move the eye around. These muscles are under the white covering of the eyeball (the **conjunctiva**). During the operation, the conjunctiva is lifted up, and one or more of the muscles is tightened or weakened by being cut and moved, and then stitched back in place using very fine absorbable stitches. Then the conjunctiva is stitched back down, again with stitches that will dissolve by themselves.

The eyeball is never removed from the socket and the operation does not involve the eyelids or the skin of the face.

The operation can be done on one or both eyes, to balance the eyes. In some cases it might not be done on the eye that seems to be turning, but you will talk about which eye is going to be operated on with the Consultant before the operation.

The operation takes about 30 minutes for each muscle that is operated on. You will be told how many muscles will need to be operated on. Everyone is different and the time it takes to go to sleep with the anaesthetic and wake up again afterwards varies a lot.

You will usually need to have a dressing on the operated eye after surgery.

## **After the surgery**

When you wake up, your eyes will be sore. You may not want to open your eyes as they will feel sore and gritty. You may feel sick. This usually improves quickly over the following day or so. You will be given a 'fitness to work' certificate to sign you off work for **2 weeks**. If needed you can self-certify or ask your GP for another 5 days after this.

The eye(s) that have been operated on will be red but should slowly get less red and less painful day by day. If it does not, you should let us know. Try not to rub your eye, but it is unlikely that you will do any significant damage to your eye or the operation by rubbing.

You will need to use drops that we give you in the eye that has had the operation, these need to go in 4 times a day for 4 weeks. The nurse that looks after you on the day will explain about the drops, and about how to clean the eye with clean cotton wool and boiled water.

Some of the stitches that are used are blue, the blue stitch may be visible under the conjunctiva for several weeks.

You will usually have your first appointment with the orthoptists 3 weeks after the operation. This will give us some idea of how the operation has gone, but it may take longer for the eye to settle into its new position. Usually, we would have a good idea of the effect the squint operation has had by 3 months after the operation.

You should not swim for 3 weeks. You should try to keep the eye clean and not expose the eye to dirty environments (e.g. dust, mud, sand, sea, river or pool water). Try to keep soap and shampoo out of the eye. You can however read, exercise (including sex), watch a screen, lift, and use a computer as normal. If you have double vision, you will need to take extra care moving around.

## **Adjustable Squint Surgery**

Some people will be offered 'adjustable surgery'. This is only suitable for some types of squint, and in some people. The doctor will discuss with you if adjustable surgery might be appropriate.

When adjustable surgery is used, the squint operation is done under general anaesthetic (asleep) as usual, but at the end of the operation one stitch is left in a bow rather than a knot. When you are awake, usually at about 4pm on the day of surgery, you will have your squint measured, and if necessary, a small adjustment to the operation can be made. You will be given lots of numbing eye drops, and then the stitches will be tightened or loosened by pulling on them. Then a tiny stitch will need to be replaced.

The adjustment is not painful, but it is uncomfortable, and you would need to be confident that you could hold still whilst the adjustment is made with instruments close to the eye.

## **Risks**

### 1. Further surgery

The biggest risk of squint surgery is the risk of needing another operation. That risk is about 1:4 to 1:5 people

Another operation might be needed soon after the first one, or years later.

The reasons further surgery might be needed are:

- a. The first operation has not straightened up the squint enough (under-correction)
- b. The first operation has done too much, and the eyes are now turning the opposite way (overcorrection)
- c. Things are fine for a while but slowly change months or years later
- d. There is a complication during or after surgery which needs an operation to fix (rare)
- e. The operation has caused you to have double vision which has not settled

### 2. Double vision

It is very common to have some double vision (seeing two of things) when the position of the eyes is moved by squint surgery, especially when looking around to the sides. This might last for a few days or a few weeks. If it lasts for longer, you might need more treatment. You will be supported by the orthoptic team

### 3. Redness

The eye that has been operated on may stay red for a few weeks, up to 3 months. If the eye has had surgery before, it might stay pink for much longer. Occasionally, the eye can stay slightly pink for ever. This is more likely if you have had an operation before.

### 4. Infection

About 1 in 150 people get an infection after the operation (conjunctivitis). We give eye drops to use after the surgery to help prevent this, but if it happens it might require further drops, or antibiotics taken by mouth. Very rarely people need to come into hospital to have medical or surgical treatment for an infection or other complication.

### 5. Allergy

A few people are allergic to either the stitches, drops or skin cleaning liquids used during surgery. This might cause itching, redness and puffy eyelids.

### 6. Risk of damaging the eye or the vision

Most people who have squint surgery have a good outcome. We know by looking at the results of all the squint operations which are done over the whole country that the risk of a serious complication is about 1 in 2500. This includes all the serious risks: loss of vision, bleeding, retinal detachment (because of a needle passing into the eye during surgery), a 'lost muscle' (when a muscle slips out of sight during surgery),

inflammation, and ischaemia (a shortage of blood supply to the front of the eye after surgery).

### **More information?**

There are lots of website you can look at, and you can also talk to your orthoptist and doctor.

<https://www.nhs.uk/conditions/squint/surgery/>



<http://www.squintclinic.com/>



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