

# Pre-operative Information about Strabismus (Squint) Surgery

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## Introduction

We expect you to make a rapid recovery after your operation and to experience no serious problems. However, it is important that you should know about minor problems associated with squint surgery, and more serious problems that can occasionally occur. The section 'What problems can occur after the operation?' describes these. The headings from this section will also be included in the consent form you will be asked to sign before your operation.

## What is a squint?

A squint is the term used to describe any condition where the eyes are not parallel. The medical term is strabismus but it is also known as a cast, turn, lazy or crossed eye. In most people the eye muscles function normally and it is the control of the eye position that causes the misalignment of the eyes.

## Reasons for having squint surgery

Aims of squint surgery can be to improve alignment of the eyes, to eliminate double vision if present, to improve 3D vision or to eliminate an abnormal head posture. Squint surgery is not a cosmetic procedure but should be more appropriately considered as reconstructive surgery. Cosmetic surgery alters a normal appearance whereas reconstructive surgery changes an abnormal appearance to one that is more normal. Squint surgery can be performed at any age.

## Alternative treatments

Alternatives to strabismus surgery include wearing temporary prisms on glasses or having the prism built into your glasses; these help join double vision in some patients. Also Botulinum Toxin injections into an eye muscle can sometimes improve the alignment of the eyes. The Orthoptist and Ophthalmologist (eye surgeon) will go through these options with you before surgery.

## What happens after you have been put on the waiting list for squint surgery?

A letter will be sent with your admission details which will explain the procedures before admission such as timing of your last food and drink intake. Squint operations are carried out as day cases and you will be cared for on Parkerswell Day Case Unit, which is part of the West of England Eye Unit at the Royal Devon and Exeter Hospital (Wonford), Exeter. You will need to attend a pre admission clinic on Parkerswell Day Case Unit at least one week before your surgery. This clinic will involve a nursing assessment that is necessary for the day of the operation and may also include an orthoptic assessment if needed. This visit will also provide you with the opportunity to familiarise yourself with the Day Case Unit, its facilities, the nursing staff and the plan for the day of the operation. Please ensure you bring your glasses to this appointment.

## How squint surgery is performed

Usually the eye that squints all or most of the time is the eye that is operated on. Depending on the type of squint, sometimes both eyes are operated on. Under general anaesthetic the appropriate muscles around the eye are repositioned and strengthened or weakened as necessary. This alters the balance of forces on the eye and helps the brain to straighten the eyes. Dissolvable stitches (sutures) are used to place the eye muscles into their new position on the

surface of the eye ball. LASERs are not used in squint surgery and the eye is never removed from the eye socket.

## Adjustable Sutures

If your consultant is planning to use adjustable sutures he will have discussed this with you prior to surgery. With the adjustable sutures technique, instead of firmly tying the stitches at the end of the operation (as is usual) they are left tied in a bow knot. Once you have recovered from the general anaesthetic and are alert, the eye pad placed by the surgeon immediately after surgery is removed and local anaesthetic drops are instilled. You will be asked to apply ice water compresses to the eye to reduce any swelling. The Orthoptist will then assess the eye position and movements, and measure the squint. Prior to seeing the Orthoptist you will be encouraged to mobilize and use your eyes in the normal way. If deemed necessary the surgeon can then fine tune the position of the eye. The adjusting process is well tolerated as anaesthetic eye drops are placed in the eye at the time of the muscle adjustment after the operation. If adjustment is not needed the sutures are left in place and do not need 're-tying'.

## After the Surgery

If you make a satisfactory recovery you can go home 4-6 hours after returning to Parkerswell Day Case Unit. This depends on the time needed for an assessment by the Orthoptist and whether any adjustments by the surgeon are needed. Occasionally a one night stay is necessary if recovery is not made quickly, but this is rarely necessary.

# What problems can occur after the operation?

## Potential risks associated with squint surgery

Many patients experience double vision (seeing two of everything) after surgery, as they are not used to the new, straighter position the eyes have been put in. If experienced the double vision goes away often in a few hours but may last a few days or weeks. In at least 90% (9 out of 10) of cases patients get used to their eyes being in a new position.

### Other risks of surgery include:

- Severe infection of the eye; risk 1 in 1,500
- Severe inflammation around the stitches; risk 1 in 5,000
- Damage to the eyeball from the suture needles; risk 1 in 1,000

Any of these last three complications can lead to loss of vision in the eye, which is a risk of 1 in 10,000.

## Deep vein thrombosis (DVT)

Deep vein thrombosis is a possible problem, but is uncommon. If you are at particular risk then special precautions will be taken to reduce the risk. Moving your legs and feet as soon as you can after the operation and walking about early help to stop thrombosis occurring.

## The risks of a general anaesthetic

General anaesthetics have some risks, which may be increased if you have chronic medical conditions, but in general they are as follows:

- **Common temporary side effects** (risk of 1 in 10 to 1 in 100) include bruising or pain in the area of injection, blurred vision and sickness, these can usually be treated and pass off quickly.
- **Infrequent complications** (risk of 1 in 100 to 1 in 10,000) include temporary breathing difficulties, muscle pains, headaches, damage to teeth, lips or tongue, sore throat and temporary problems with speaking.
- **Extremely rare and serious complications** (risk of less than 1 in 10,000) include severe allergic reactions and death, brain damage, kidney and liver failure, lung damage, permanent nerve or blood vessel damage, eye injury, and damage to the voice box. These are very rare and may depend on whether you have other serious medical conditions.

The chances of not surviving a general anaesthetic are about 1 in 200,000.

## Prognosis

Overall squint surgery has the desired effect in approximately 80% of cases. Therefore approximately 1 in 5 patients require further treatment or surgery to successfully align the eyes. The success rates vary among different types of squints because the underlying reason for the squint (various brain or eye muscle problems) differs widely between patients.

The Trust cannot accept any responsibility for the accuracy of the information given if the leaflet is not used by Royal Devon staff undertaking procedures at the Royal Devon hospitals.

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