

Patient information factsheet

Squint surgery for children

We have given you this factsheet because your child's eye doctor has recommended that your child have an operation to treat their squint (a condition where the eyes point in different directions). It explains what a squint operation involves so you know what to expect and can help to prepare your child. We hope it helps to answer some of the questions you may have. If you have any further questions or concerns, please ask your child's orthoptist or eye doctor.

What is the aim of a squint operation?

A squint operation aims to:

- improve the alignment of the eyes (how the eyes line up) and reduce the size of the squint
- improve 3D (depth) vision in some cases
- reduce or get rid of the need to use a compensatory head posture (for example, tilting or turning the head) to control the squint

What does a squint operation involve?

The operation involves moving the muscles that control eye movement so that the eyes line up better. It is performed under a general anaesthetic (a medicine that sends your child to sleep so they do not feel anything during the operation) by an eye doctor.

Depending on the type and size of your child's squint, we may need to operate on more than one eye muscle and on one or both of their eyes. We will discuss this with you in more detail during your child's clinic appointment.

If you are happy to go ahead with the operation, we will add your child to our surgery waiting list. Please note that the length of the waiting list varies. When we add your child's name to the waiting list, we will let you know how long it is likely to be until they have their operation.

How successful is a squint operation?

There are many different types of squint and eye muscle problems. How successful the operation will be will vary depending on the type of squint that your child has. Overall, about 90% of children notice an improvement in their squint after the operation.

For children whose two eyes can work together and whose eyes can move reasonably well, it may be possible to cure the squint, although this cannot be guaranteed. For children whose eyes cannot work together (for example, if they have had the squint since infancy) or whose eyes have significant problems moving fully, it is unlikely that the operation will cure the squint, but in most cases, it can improve it.

It is important to note that having a squint operation will **not** improve your child's vision or their need for glasses.

What are the risks of a squint operation?

A squint operation is generally a safe procedure, with most children experiencing no significant problems. However, as with any operation, complications can and do occur. Generally, these are minor but on rare occasions they may be more serious.

- **Under or overcorrection of the squint:** It is not always possible to predict the results of a squint operation. The amount of surgical correction that is right for one child may be too much or too little for another child with the same sized squint. Because of this, your child's squint may still be present (undercorrected) or their eye may turn the other way (overcorrected) after the operation. In some cases, a further operation may be needed to treat this. In some cases, the eyes may initially be straight after the operation, but the squint comes back over time. Many children will need more than one operation in their lifetime. Please note that we cannot predict if or when your child's squint may reoccur.
- **Double vision:** Some children who did not previously experience double vision notice it after the operation. This often settles with time, but in some cases can be permanent. If this is the case, further treatment may be needed. Please note that double vision is unlikely to occur in children under seven years old.
- **Infection:** Infection is a risk with any operation and, although extremely rare, can result in the loss of the eye or vision. Sometimes an infection can develop around one of the stitches, forming a cyst. If this happens, we will usually prescribe your child some eye drops to treat this. If the eye drops do not help, a further operation to remove the cyst may be needed.
- **Allergic reaction:** Some children may have a mild allergic reaction to the medication that is given after the operation or to the dissolving stitch material. If your child has a reaction, they may experience itching, redness and puffiness of the eyelids. If this occurs, contact us for advice using the details at the end of this factsheet.
- **Scarring:** Initially, there will be some scarring of the white area of the eye(s). Most scarring will not be noticeable after three months, but occasionally some visible scars will remain. This is more common if your child has had an operation on the same eye muscle previously.
- **Pupil dilation:** Rarely, after an operation on a vertical eye muscle (a muscle that pulls the eye up or down), the pupil may be slightly larger (dilated) and a different shape.
- **Lost or slipped muscle:** Rarely (1 in 1,000 risk), the eye muscle can slip from its new position during or shortly after the operation. If this occurs, the eye will be less able to move, and the squint may be more noticeable. If this is severe, a further operation may be needed.
- **Needle penetration:** If the stitches are deep or the white of the eye is thin, a small hole in the eye can occur, which may need further treatment. Depending on the location of the hole, vision can be affected. The risk of this happening is very low (0.1 to 1% risk). However, children who have had previous eye muscle operations or who are very shortsighted are more at risk.

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- **Anterior segment ischaemia (poor blood supply):** Very rarely (1 in 13,000 risk), the blood supply to the front of the eye is reduced after the operation, causing a dilated pupil and reduced vision. This is more common in children who have had multiple eye muscle operations.
- **Loss of vision:** This is very rare but can occur following a squint operation. The risk of serious damage to the eye is very low (1 in 30,000).
- **Anaesthetic risks:** Anaesthetic medicines are usually safe, but they do pose a small risk which can potentially be serious. An anaesthetist (a doctor specialising in anaesthetics) will meet with you before your child's operation to explain what these risks are and to answer any questions you may have.

How should I prepare my child for the operation?

We will send you an appointment letter containing important information about how to prepare your child for their operation, including:

- the date of your child's operation
- when your child should stop eating and drinking before their operation (fasting guidance)
- what time to arrive at the hospital and where you need to report to

Occasionally, if there is a short notice operation date available, we will call you instead of sending you a letter. Please make sure you follow the preparation guidance carefully. If you do not, we may need to reschedule your child's operation.

When the eye doctor adds your child to our surgery waiting list, they will advise you whether your child needs to stop taking any of their usual medications before the operation.

Pre-operative orthoptic assessment

We will arrange a pre-operative assessment appointment for your child with an orthoptist a few weeks before their operation. During this appointment, the orthoptist will assess your child's eyes to ensure that there are no significant changes and answer any further questions you may have. If you have any questions about medications, please speak to the orthoptist who will be able to check with the doctor.

Arranging transport to and from the hospital

You will need to arrange your own transport to and from the hospital. You should not use public transport to take your child home after the operation. If you are on income support or other benefits and would like help with taxi fares, please bring proof of this and tell the nurses when you arrive.

What will happen before the operation?

We will ask you to come to the John Atwell children's day ward (G level, Southampton General Hospital) early on the day of your child's operation (please see your child's appointment letter for more details). Please note that we ask all children to arrive at the same time so that the doctor and anaesthetist can see them before they start operating. This means that there may be a wait before your child has their operation. We thank you for your patience.

When you arrive on the ward, the children's nurse will explain the plan for the day. They will check your child's weight, temperature, pulse and breathing. You will then see the eye doctor who will answer any questions you may have about the operation. If you are happy to go ahead with the operation, the doctor will then ask you to sign a consent form.

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The anaesthetist will check on your child's health and explain what having a general anaesthetic involves, including the benefits and risks. A general anaesthetic is usually given as an injection through a cannula (a thin, plastic tube) into a vein in the back of the hand but is sometimes given as a gas that you breathe in through a mask. The anaesthetist will advise which option is best for your child. If your child is having the general anaesthetic via an injection, the children's nurse will put some numbing cream (called EMLA or Ametop) onto the back of your child's hand and cover it with a dressing. This numbs the area where the anaesthetic will be injected.

The nurse will ask you to change your child into a theatre gown. They will then take you and your child to the anaesthetic room where the anaesthetist will give your child the general anaesthetic. We will then transfer your child to the operating theatre.

What will happen during the operation?

In each eye, there are six muscles which control the eye's movements. These muscles are attached to the surface of the eye under the white areas. The aim of the operation is to weaken or strengthen one or more of these muscles to straighten the eye(s).

Once the general anaesthetic has taken effect and your child is asleep, the eye doctor will move the position of a specific muscle (or muscles) in their eye. The doctor will then reattach the muscle(s) to their eye using dissolvable stitches (these will dissolve in about six to eight weeks). Please note that we will **not** remove your child's eye during the operation.

Your child may also need to have stitches in the clear layer which covers the surface of the eye (called the conjunctiva). These stitches will usually fall out on their own in the first four to six weeks after the operation, but in some cases, they may need to be removed. We will discuss this with you before your child goes home.

How long will the operation take?

Squint operations usually take about 60 minutes, but this can vary depending on the number of muscles that need treating.

Can I stay with my child?

We encourage one parent or carer to stay with their child on the ward for the whole day.

You can go to the anaesthetic room with your child. If your child is over one year of age, you are welcome to stay with them until they are asleep. A nurse will advise you where you can wait while your child has the operation.

After the operation, a nurse will take you to the recovery room, so you are there as your child wakes up.

What will happen after the operation?

Once your child is awake, the nurse will take you both back to the ward. Your child will be able to rest in a bed on the ward until they are ready to go home.

We will give your child something to eat and drink. We will also check your child's observations and monitor them to make sure they are well before going home. Most children can leave two to four hours after their operation. Very occasionally, some children may need to stay overnight. We will advise you when it is safe for your child to go home.

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The eye doctor will not routinely see all children before they go home. However, if your child needs to see the doctor, the nurses can contact them.

You should encourage your child to wear their own glasses or sunglasses on the way home to protect their eyes.

We will give you a separate aftercare factsheet with more information about how to care for your child after they go home. We will also give you eye drops to help your child's eye(s) heal. You will usually need to use these drops for four weeks after the operation. We will explain how and when to use these drops.

We will arrange a follow-up appointment for your child two to three weeks after their operation. This appointment may be via telephone or face to face at the hospital. We will send you a text or letter with details of the appointment.

Recovering at home

You should encourage your child to rest for the remainder of the day of their operation.

Your child's eye(s) may be uncomfortable for a few days after the operation but should not be painful. Please make sure you have some pain relief medication suitable to give to your child after you get home, if necessary. Before you leave the hospital, we will advise you when you can give your child medication, if necessary.

Your child's eye(s) will be red after the operation. This should improve in the first couple of weeks but can take up to three months to go away. Occasionally, the eye does not completely return to its normal colour.

You can wash your child's hair, although it is best not to do this for the first day or two after the operation. You should avoid getting water or shampoo in your child's eyes.

On average, children will need to take one week off school or nursery after a squint operation.

Your child should avoid:

- any activities that risk something getting into their eye (for example, playing with sand) for at least **one week** after the operation
- strenuous activities and sports for **two weeks** after the operation
- swimming for **four weeks** after the operation

In most cases, children need to continue wearing their glasses after a squint operation.

If your child normally wears contact lenses, they should not wear these until after they have stopped using the eye drops we have given you (usually four weeks after the operation).

You should not do any eye patching straight after the operation, but some children do need to use a patch again once the eyes have healed. Your child's orthoptist and eye doctor will advise you about this.

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Contact us

If you have any questions or concerns, please contact us using the relevant details below.

For questions or concerns before the operation

Orthoptic department

Telephone: **023 8120 4789** (Monday to Friday, 8.30am to 5pm)

Eye unit admissions

Telephone: **023 8120 5712** or **023 8120 4197** (Monday to Friday, 9am to 4pm)

For questions or concerns after the operation

Orthoptic department

Telephone: **023 8120 4789** (Monday to Friday, 8.30am to 5pm)

John Atwell children's day ward

Telephone: **023 8120 6157** (Monday to Friday, 7.30am to 8pm)

Eye emergency department

Telephone: **023 8120 6592** (Monday to Friday, 8am to 7.30pm, weekends and bank holidays, 8am to 6pm)

Useful links

www.squintclinic.com

www.rcoa.ac.uk/patients/patient-information-resources/children-parents-carers

If you are a patient at one of our hospitals and need this document translated, or in another format such as easy read, large print, Braille or audio, please telephone **0800 484 0135** or email **PFSH@uhs.nhs.uk**

For help preparing for your visit, arranging an interpreter or accessing the hospital, please visit **www.uhs.nhs.uk/additionalsupport**

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