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Orthoptics

Squint Surgery for Children: Pre operative information

Your child has been referred for squint surgery. This leaflet aims to answer the most frequently asked questions.

What is a squint?

- Squint is a condition where the eyes may not work together and only one eye is directed towards the object being looked at. The other eye usually turns inwards or outwards or one eye can be too far up or too far down
- In children, a squint is often associated with a lazy eye (amblyopia), where there is poor vision in the eye which is squinting. This is usually treated before an operation is considered.
- It is rare in children, for a squint to be associated with double vision.

What is the aim of squint surgery?

- Usually, the aim of squint surgery in children is to help improve the appearance of your child's eye alignment.
- In some cases the surgery also aims to restore a degree of binocular vision (get the eyes working together), or eliminate double vision. If this is the case for your child, it will be discussed with you in more detail before the operation;
- Squint surgery will not restore the vision to a lazy eye. This can only be treated with patch therapy or atropine drops therapy which may need to be continued for some time after the operation, especially in very young children;
- If your child wears glasses, they will continue to need them after the operation, unless advised otherwise by your Orthoptist or consultant.

What does the surgery involve?

The operations are carried out under General Anaesthetic and you will meet our anaesthetist before the operation. Please make sure you have received instructions about food, drink and arrival time and that you have understood them, as they are important for your child's safety. Children do not need to stay in hospital afterwards, and can go home on the day of operation except in rare cases where they need to stay overnight.

The operation involves weakening or strengthening some of the eye muscles. That may be two or three muscles on one eye, or may involve operating on muscles from each eye. The amount of strengthening or weakening that is done is determined by the degree of your child's squint as measured by the orthoptists and past experience of what happens in most cases.

The doctor will explain which is to be done and why that particular approach has been chosen. The muscles lie on the surface of the eye covered by the conjunctiva, a membrane which lines the eye and the eyelids. To get access to the muscles we need to lift up the conjunctiva, and, just as when operating on skin, this causes some bruising. The bruising on the eye looks bright red rather than blue and can be a little alarming when you first see it. We do not need to remove the eye and place it on the cheek - a common misconception.

What are the risks associated with squint surgery?

We perform a large number of squint operations each year, and complications are rare. However they do arise and you should be aware of them.

- Not all children will respond to surgery in the same way, so that for some children undergoing squint, the amount of surgery will lead to too big or too small a correction. In addition some children have such large squints that it is not possible to fully correct it with one operation. For these reasons, it is always necessary to be prepared for more than one operation if we are not entirely satisfied with the outcome of the first. In certain types of squint the aim is to over correct the squint at first so that the eye is turning inwards instead of outwards. We do this as it has been shown to have a better long term outcome as most eyes will try to move a little way back to their original position.

- If further surgery is necessary it may be better to perform it on the other eye, rather than the one that received the first surgery. This often seems odd to families, but bear in mind that the eyes work together like windscreen wipers with the brain driving them as a pair.
- Our job is to get them lined up properly, and it often does not matter whether the surgery is performed on one eye, the other or a little surgery to both.
- Older children may experience some double vision after the operation. This is usually very short lived (a matter of a few days) whilst the child's brain readjusts to the new eye position. If it persists we may need to treat with patches, prism glasses or even further operation.
- The most serious complication that can happen during squint surgery is for one of our needles to be placed too deeply and result in penetration of the eye coat. Fortunately when this happens it rarely causes problems, but penetration carries the potential to cause bleeding, retinal detachment or even infection within the eye. If infection were to occur, it might cause the eye to lose vision.
- Another serious but rare complication is for one of the eye muscles that are operated on to fail to attach firmly on the new position of the eye coat that it is placed. The “lost” muscle then retracts to the back of the eye socket and as it is unable to move the eye to the direction it was originally designed to, the squint may actually end up worse than before the operation. This is only very rarely reported by doctors that specialize in squint surgery. Fortunately, even if this does happen, it can often be rectified by exploring the eye socket, retrieving the lost muscle and reattaching it to the eyeball with a further operation.
- It is difficult to calculate the frequency of such serious problems. Worldwide the risk of sight threatening problems following squint surgery is probably around one in every 2,000 operations.
- There are always some risks associated with any general anaesthetic but your child will be under the care of a specialist paediatric anaesthetist. If you have any concerns about the anaesthetic, please ask to discuss them with the anaesthetist before the operation.

What are the other options?

Surgery is the only way to have a long-term effect on the alignment of the eyes. Botulinum toxin injection to the eye muscles is a useful option for the management of some squints or to find out the likelihood of double vision after squint surgery. We use Botox in a few cases of very young babies or

sometimes to improve the results of traditional Squint surgery, where we move eye muscles. If your child is such a case, the surgeon will have discussed this option with you. When we use Botox in squint surgery, there is an additional extra short term risk of having a droopy eyelid

Do I need to do anything before the operation?

You and your child will be asked to attend an appointment on the ward, around one week before the surgery. This will allow your child to see the ward and provide an opportunity for you to ask questions

What happens on the day of the operation?

- The squint surgery is performed as a day case, under general anaesthetic, in most circumstances
- One parent may accompany their child to the anaesthetic room and remain with them until they are asleep
- Most children will be ready to go home the same day, but very occasionally some children may need to remain on the ward later or overnight due to the effects of the anaesthetic

What to expect after the operation

- The children need to be seen regularly after the operation (in our Eye department) to make sure that the operation has worked and to make sure that your child is not running in to any problems .We will give you an appointment for the Orthoptic department 1-2 weeks after the operation.
- The muscles are re-attached to the eye with dissolving stitches and the conjunctiva is closed over them, again with dissolving stitches. This means that whilst most of the redness settles very quickly (ten to fourteen days) some remains right up to the time the stitches finally disappear, which may be as long as eight weeks.
- Try to make sure your child takes things easy for a few days after the operation. You may want to restrict the time your child spends watching television or reading so that they do not make their eyes feel uncomfortable. Avoid strenuous exercise, smoke, dust or fumes and eye make-up. Please wash your child's hair with their head tilted backwards if possible and try to make sure that no soap or shampoo enters the eye for the first two weeks

- Children can go back to school as soon as they are feel ready to return but they should not go swimming for the first 4 weeks after the operation.
- Use the eye drops supplied after the operation, as instructed.
- Follow any specific guidelines given to you by your Orthoptist or Surgeon

Further Information

If you have any questions about your child's surgery or aftercare please discuss the matter with a member of the Eye Department staff: Tel 024 7696 6521

The Trust has access to interpreting and translation services. If you need this information in another language or format please contact 024 7696 6521 and we will do our best to meet your needs.

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