

Strabismus / Squint Surgery

Introduction

Squint (strabismus) refers to the misalignment of the eyeballs, one eyeball focuses on an object, while the other eye drifts in another direction. The aim of squint surgery is to re-align the eyeballs that helps relieve double vision, improve fusion of image and hence to prevent the development of lazy eyes especially in childhood. The surgery may also improve cosmesis and abnormal head posture.

The Procedure

- Squint surgery may be performed on the muscles of one or both eyes under local or general anesthesia. General anesthesia is usually adopted for procedure performed on children.
- A small incision is made in the conjunctiva, the transparent membrane covering the white part of the eye.
- One or more of the eye muscles are strengthened or weakened to allow proper alignment of the eye, suturing is usually required in the operation.
- There will be no significant effect on the refractive error on the eyeball and thus the individual patient will need to continue with spectacle wear, if required prior to surgery.
- Spectacles and occlusion treatment for lazy eye will need to be continued after the operation, if started prior to surgery

Possible Risks and Complications

In general, squint surgery is a safe procedure, but complications may still occur during the operation, or within days, months or even years after the operation. The possible complications associated with squint surgery include:

- Swelling, redness, inflammation and bleeding on the conjunctiva (the 'white' part of the eye). The conjunctival congestion and swelling may persist for several weeks to several months after surgery.
- Tearing and mild eye discharge
- Abrasion (scratch) or infection at the cornea (clear part of the eye)
- Infection and inflammation at structures around the eyeball (eyelids)
- Scarring around eyeball causing defective eyeball movements
- Double vision
- Over-correction or under-correction

- Slipped or lost muscle especially when the operated muscles are fibrotic and/or under high tension.
- Prismatic glasses may be needed for persistent double vision
- Re-operation or even multiple surgeries may be necessary to achieve optimal alignment of the eyes.
- Accidental penetration of the eyeball causing bleeding, damage inside the eye and possible retinal detachment which may occasionally lead to vision deterioration or blindness.

Rare Complications & complications associated with local anesthesia

- Infection (endophthalmitis) due to eyeball perforation
- Vascular insufficiency or occlusion leading to vision loss
- Drooping lid (ptosis) and sinking-in of eyeball into the orbit (enophthalmos)
- Manipulation of eye muscles may cause cardiac or respiratory disturbances in extreme conditions.
- Risks associated with the local anesthesia such as eyeball perforation, optic nerve injury, retinal vascular occlusion, droopy lid (ptosis), respiratory and cardiac disturbances and fluctuations in blood pressure.

Before the Procedure

- Blood tests, chest x-rays, and /or imaging of the eyeball may be required to prepare for general anesthesia/ surgery.
- Fasting may be required, as instructed by healthcare professionals
- Inform your doctor if you have other systemic disease such as hypertension, stroke, heart disease, diabetes
- Inform your doctor if you are taking western medication (especially blood thinners like Aspirin or Warfarin), traditional Chinese medicines or health supplements on a regular basis.

After the Procedure

- You may see stitches in the conjunctiva, they will be absorbed naturally.
- The operated eye may need regular cleaning around the lids, with cooled boiled water and do not use cotton balls.

- The conjunctiva may be congested or red with subconjunctival hemorrhage for several weeks with surrounding swelling.
- It is common to perceive double vision in the early postoperative period.
- Follow instructions on taking eye drops or eye ointment and attend post op visits as scheduled
- Do not rub eye(s)
- Prevent water, soap or shampoo from getting into the eye. Avoid washing your hair in the first post-operative week to prevent infection.
- Avoid swimming, contact sports or vigorous activities for at least 3 weeks
- Wear button down shirts and not pullovers to avoid contact with the operated eye(s) and to prevent infection
- Illuminate dark areas to avoid falls as you may not be accustomed to the eye pad or blurring after surgery.
- If you experience acute blurred vision, excessive bleeding from the operated eye, signs of infection such as fever and chills, redness, swelling, increasing pain, or excessive discharge from the procedure site, you should see your doctor immediately or seek medical attention at the nearby accident and emergency department.

Remarks

This is general information only and the list of complications is not exhaustive. Other unforeseen complications may occasionally occur. The actual risks may be different for different patients. During the operation, unpredictable conditions may arise, and additional procedures may be performed if necessary. For further information, please contact your doctor.