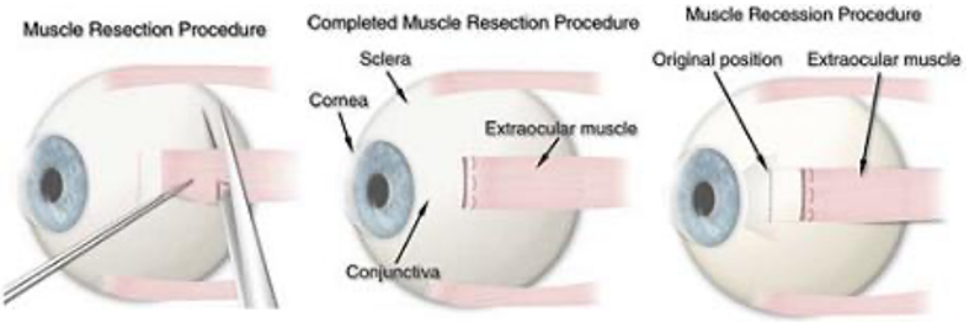
STRABISMUS SURGERY

Who needs strabismus surgery?

- For children, the strongest and time-sensitive indication for strabismus surgery is when the ocular misalignment cannot be corrected with solely conservative management (such as glasses and amblyopia treatment). Straightening the eyes is important in ensuring the most optimal visual development (including depth perception) as possible for a given child.
- For adults, the most important indication for strabismus surgery is when the ocular misalignment is or becomes symptomatic (most typically, of double vision) and not managed adequately with conservative measures (such as prism incorporated glasses). As there are many potential causes of strabismus in adults (such as stroke), pre-operative assessment of both the cause and the nature of strabismus is crucial. For instance, strabismus caused by Myasthenia Gravis (autoimmune disorder) needs to be managed medically, NOT surgically.
- It is important to keep in mind that for both children and adults, whenever possible, conservative, non-surgical management for strabismus would be the safest and most prudent approach. Therefore, the decision for strabismus surgery needs to be made in consultation with your eye specialist after thorough assessment and consideration of all options, both conservative and surgical. When strabismus surgery is deemed necessary, however, prompt intervention to straighten the eyes is important particularly in children, as visual development is very time sensitive.

How is strabismus surgery done?

- Strabismus surgery needs to be performed under the care of a trained ophthalmic surgeon.
- As the specific quantity of the surgery (that is, the amount that the eye muscle—or muscles-- needs to be moved surgically) depends upon the extent of the ocular misalignment, several measurements of the ocular misalignment are necessary to establish a reliable, accurate baseline for the strabismus prior to the surgical intervention. This pre-operative preparation is crucial in ensuring the best surgical outcome possible post-operatively.
- Strabismus surgery involves surgically moving the position of one or more eye muscle (ocular motility muscles) on the eye. More specifically, a given eye muscle is detached from its original attachment point on the globe (eyeball) and reattached to a different position on the globe. The new location for the muscle attachment is determined by how much the eye turns and the type of the eye turn (e.g., inward turning/esotropia or outward turning/exotropia).
- Following images illustrate an example of strabismus surgery involving muscle resection (to strengthen the action of the muscle) and recession (to weaken the action of the muscle):



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What are potential risks and complications of strabismus surgery?

Strabismus surgery is generally very safe and effective. However, as with any surgical intervention, there are potential risks and complications.

General Risks for Ocular/Periocular Surgery:

- Infection, bleeding, and possible vision loss are general risks, however remote
- Scarring, blood clotting (Deep Vein Thrombosis), heart attack, stroke
- Mild or severe allergic reaction
- Ocular pain, glare, sensitivity to light, increased floaters, double vision, dry eyes, ocular/periocular bruising and swelling
- Altered appearance of the eye (including changed eyelid / eye position and disfigurement)
- Retinal detachment, glaucoma (with high intraocular pressure), corneal swelling and scarring, cataract, intraocular inflammation, and pupil change
- Worsening or loss of vision or eye
- Suboptimal outcome or recurrence of the condition
- Driving will not be advised, until cleared by the doctor, which may be for one day or longer depending on the procedure and the outcome
- Sympathetic Ophthalmia (less than 1 in million potential inflammation and loss of vision in the fellow, unoperated eye, which can be treated but may result in vision/eye loss)
- Equipment/prosthesis failure
- Death directly or indirectly related to the procedure
- Possible complications due to anaesthesia or drug reactions

Additional Risks Specific to Strabismus Surgery:

- Under or over correction of strabismus
- Recurrence of strabismus
- Persistence or onset of amblyopia (lazy eye or poor vision)
- Double vision (diplopia), which may be temporary or permanent

Additional References for Patients

Following reference links would be helpful in providing additional information for the patients:

1. https://ranzco.edu/wp-content/uploads/2019/06/OPA-RANZCO-Strabismus-surgery-ed2-19-1.pdf
2. https://aapos.org/glossary/strabismus-surgery