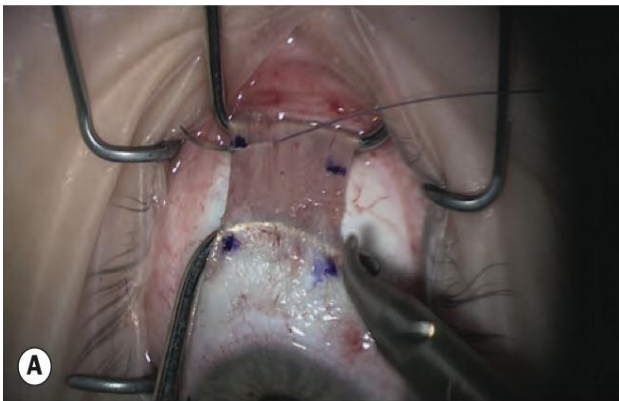


# STRABISMUS

## Squint (2)



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# Learning objects

**CONCOMITANT EXOTROPIA**

**INCOMITANT EXOTROPIA**

**SQUINT SURGERY**



# CONCOMITANT EXOTROPIA

## Constant (early-onset, congenital, infantile) exotropia

Presentation is often at birth.

### Signs

- *Normal refraction.*
- *Large and constant angle.*
- *DVD may be present.*
- *Neurological anomalies are frequently present, in contrast with infantile esotropia.*

**Treatment** is mainly surgical and consists of lateral rectus recession and medial rectus resection.

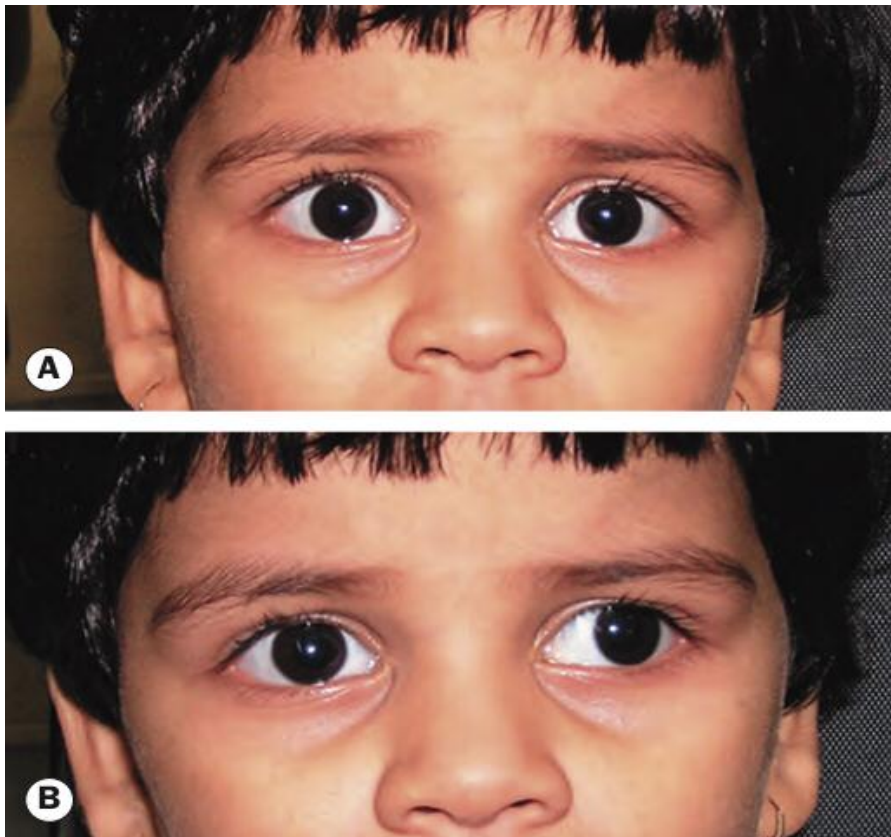
## Intermittent exotropia

Presentation is often at around 2 years with exophoria, which breaks down to exotropia under conditions of visual inattention, bright light, fatigue or ill health. The eyes are straight at times and manifest with at other times.

### Classification

- I. **Distance exotropia**, in which the angle of deviation is greater for distance than near and increases further beyond 6 metres.
- II. **Basic exotropia**, in which control of the squint and the angle of deviation are the same for distance and near fixation.

III. **Convergence insufficiency exotropia**, in which the deviation is greater for near fixation. It tends to occur in older children and adults and may be associated with acquired



*myopia or presbyopia.*

Intermittent exotropia. (A) Eyes straight most of the time; (B) left exotropia under conditions of visual inattention or fatigue.

### **Treatment**

- **Spectacle** correction in myopic patients may, control the deviation by stimulating accommodation and with it, convergence. In some cases **over-minus** prescription may be useful.
- **Part-time occlusion** of the non-deviating eye may improve control in some patients and **orthoptic exercises** may be helpful for near exotropia.

- **Surgery.** *Patients with effective and stable control of their intermittent exotropia are often just observed. Surgery is indicated if control is poor or is progressively deteriorating. Unilateral lateral rectus recession and medial rectus resection are generally preferred except in distance exotropia when bilateral lateral rectus recessions are more usual.*

## Sensory exotropia

Secondary exotropia is the result of monocular or binocular visual impairment by acquired lesions, such as cataract, corneal scarring or other media opacity. Treatment consists of correction of the visual deficit, if possible, followed by surgery if appropriate.

## Consecutive exotropia

Consecutive exotropia develops following surgical correction of an



esodeviation.

Sensory exotropia in patient with cataract.

# Incomitant exotropia

## 1. Neurogenic squint (paralytic)

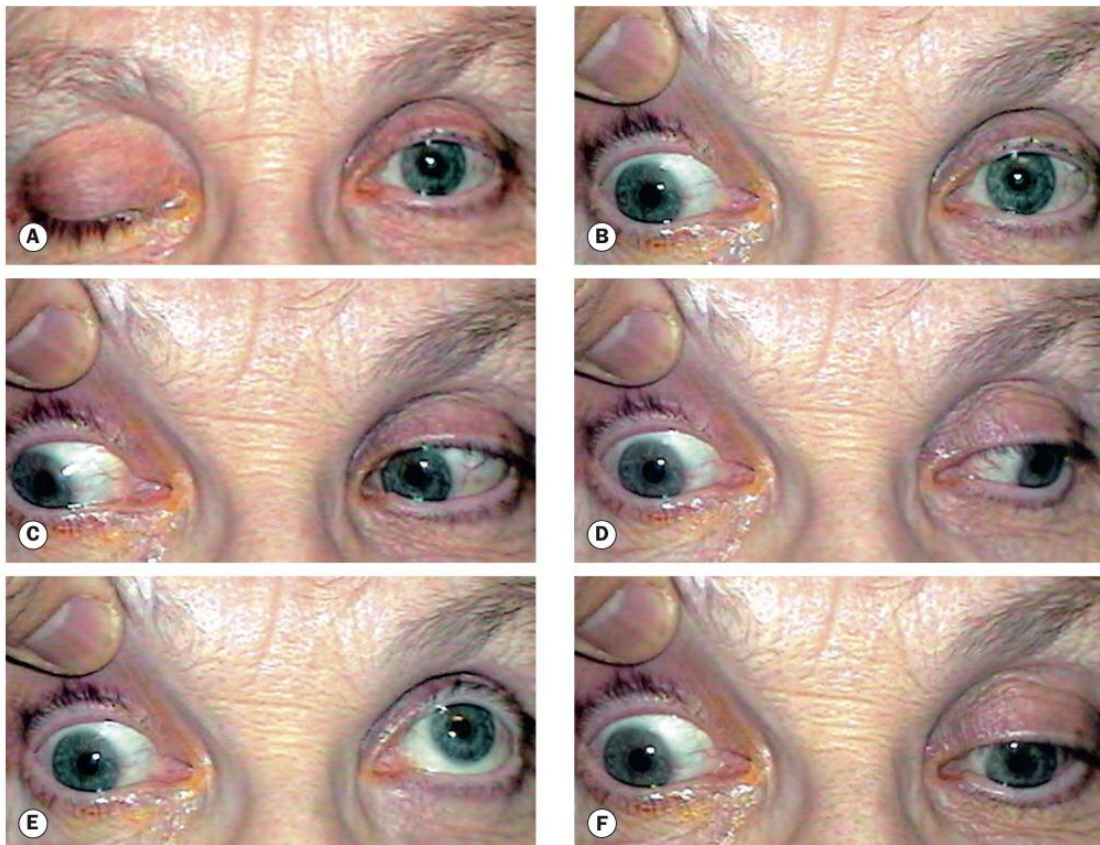
3<sup>rd</sup> cranial nerve palsy .

## 2. Mechanical squint

thyroid disease.

## 3. Myopathy

myasthenia gravis ,myositis.



**Fig. 19.67** Right third nerve palsy. (A) Total right ptosis; (B) right exotropia and depression in the primary position; (C) normal abduction; (D) limitation of adduction; (E) limitation of elevation; (F) limitation of depression

# Squint Surgery

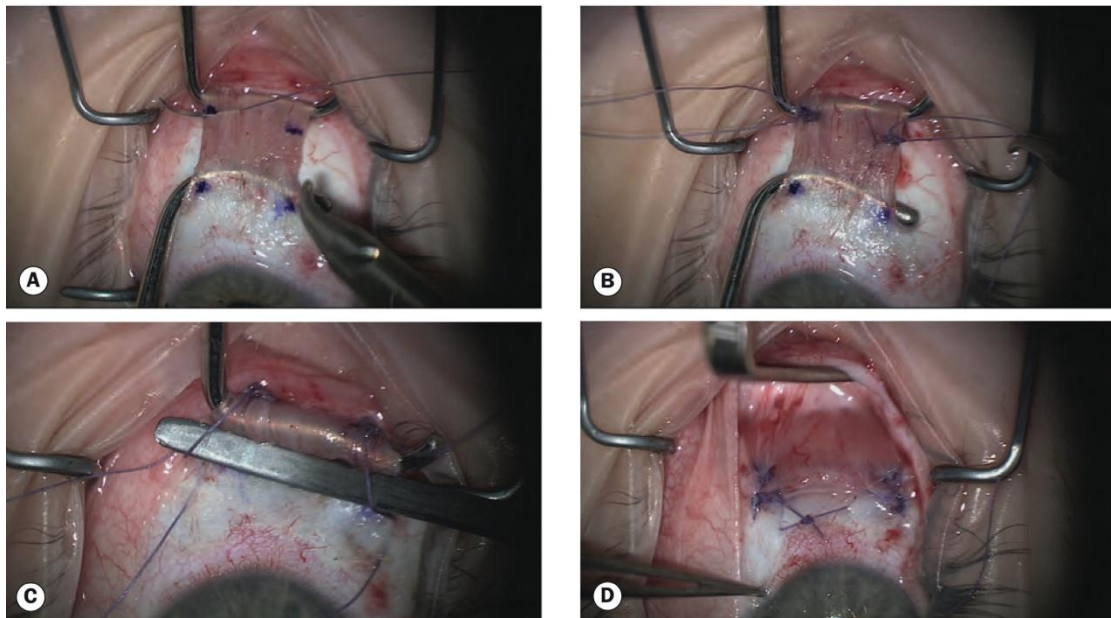
the first step in the management of childhood strabismus involves correction of any significant refractive error and/or treatment of amblyopia. Once maximal visual potential is reached in both eyes, any residual deviation can be treated surgically.

## types of procedure are:

1. *Strengthening, to enhance the pull of a muscle.*
2. *Weakening to decrease the effective strength of a muscle.*

## Strengthening procedures

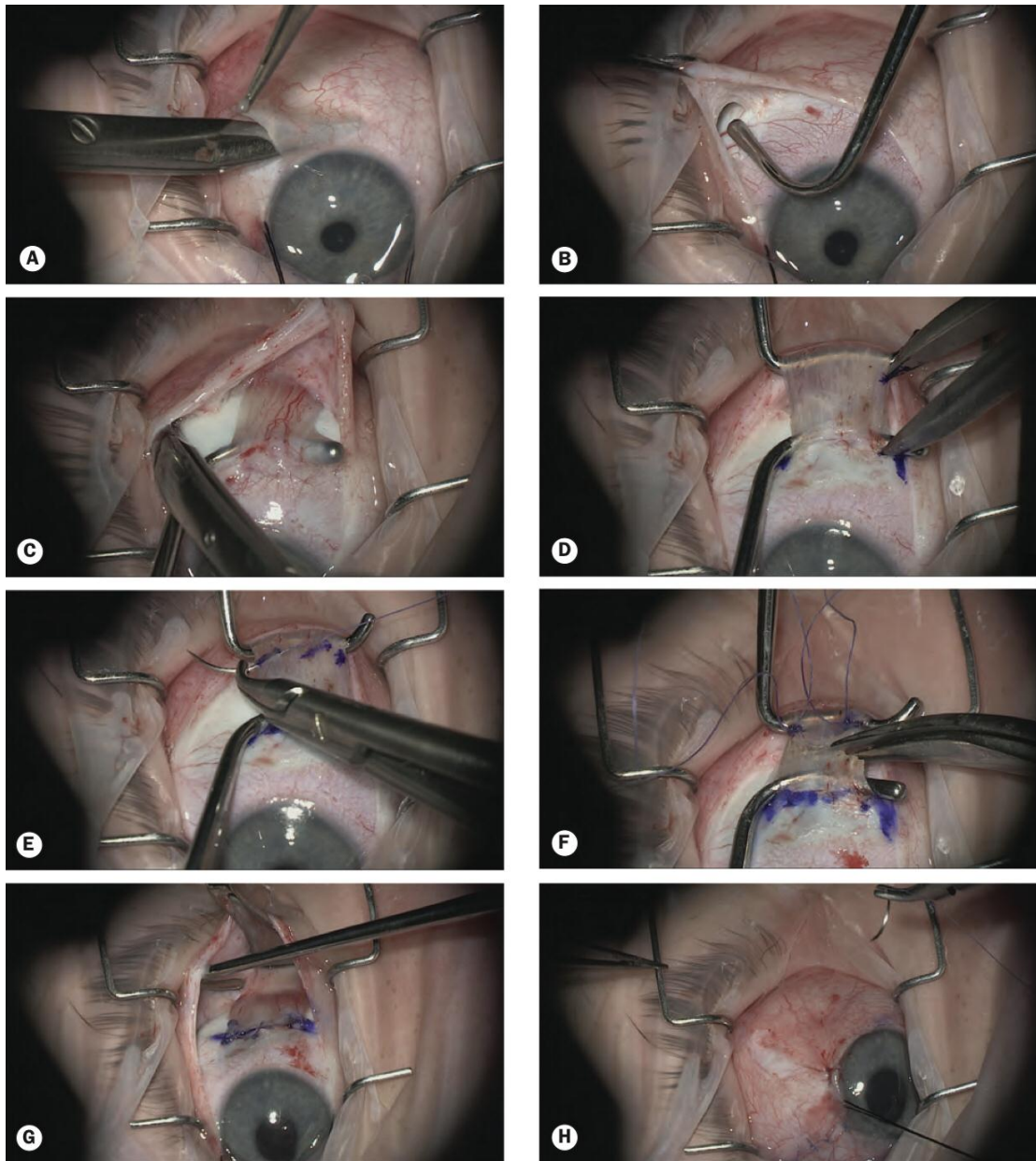
1. **Resection** shortens a muscle to enhance its effective pull. It is suitable only for a rectus muscle.
2. **Plication** has a similar effect to resection, but has the advantage that it is less traumatic, does not sacrifice the



*anterior ciliary vessels and can be easily reversed if needed.*



Plication of medial rectus. (A) Muscle isolated and marked; (B) sutures inserted; (C) muscle folded over a fine repositor; (D) sutures in position.



Resection of a horizontal rectus muscle. (A) Conjunctival incision with traction sutures to expose the operation site; (B) insertion of squint hook; (C) isolation of the muscle; (D) calliper set to the desired amount of resection; (E) muscle marked and initial 6-0 vicryl suture inserted; (F) muscle crushed, and cut anterior to the sutures; (G) sutured muscle in position; (H) conjunctival closure

## Weakening procedures

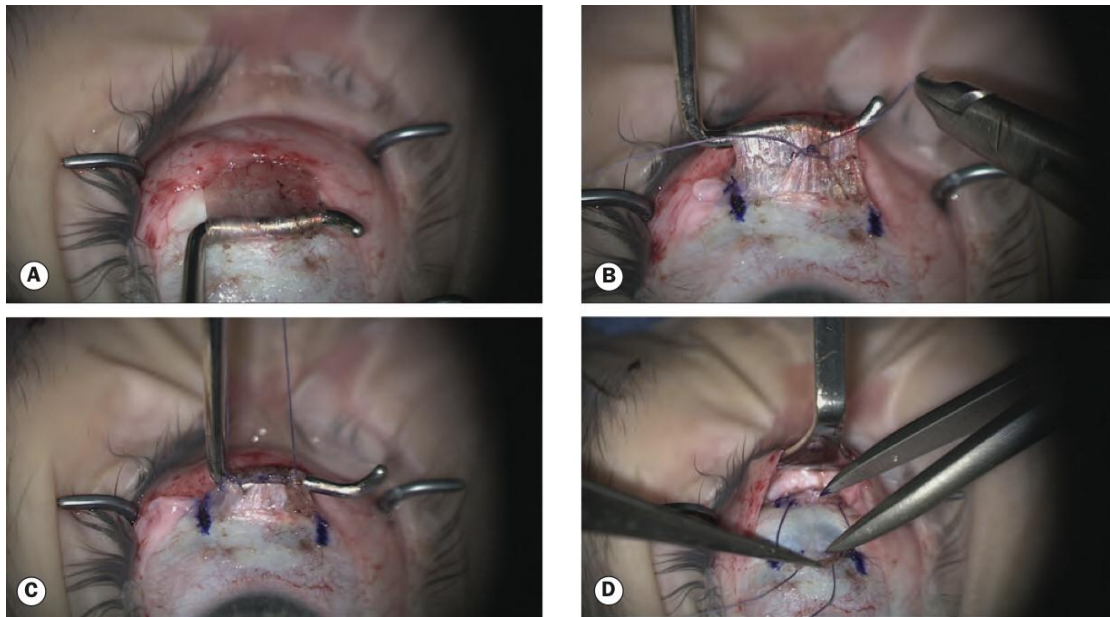
1. **Recession** slackens a muscle by moving it away from its insertion. It can be performed on any muscle except the superior oblique.
2. **Disinsertion** involves detaching a muscle from its insertion without reattachment. It is most commonly used to weaken an overacting inferior oblique muscle.

## COMPLICATIONS OF STRABISMUS SURGERY

### 1. Operative

- Lost or 'slipped' muscle (especially the medial rectus muscle).
- Globe perforation by a misplaced suture (especially in high myopia with a thin sclera).

2. **Postoperative** Over-correction and under-correction are common and after a period of observation to obtain stable measurements reoperation may be needed.



recession of a horizontal rectus muscle. (A) Muscle hooked and stretched with a squint hook; (B) fixation with 6-0 vicryl suture showing the central knot; (C) locked sutures at upper and lower border; (D) sutures inserted, with calliper showing the amount of recession.

