Strabismus

- Strabismus is a general term referring to ocular misalignment due to extraocular muscle imbalance.

- Strabismus occurs in approximately 3% of children and young adults.

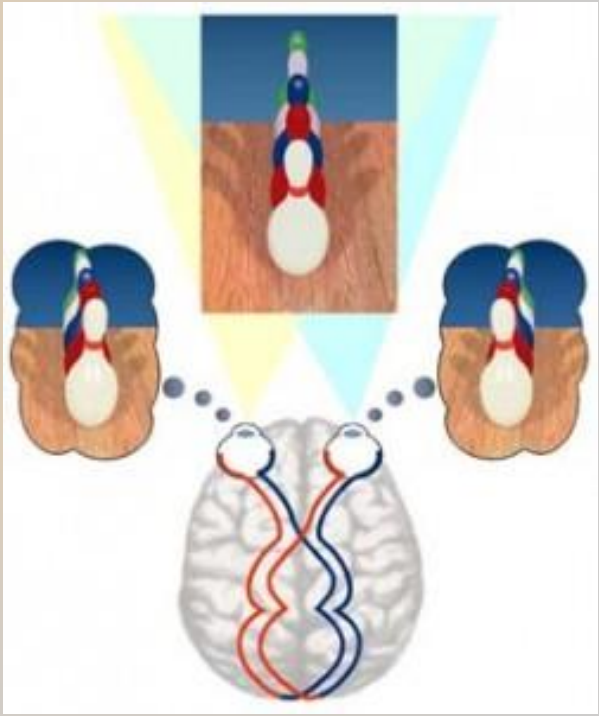
Why we are concerned about strab ?

It is important for functional and cosmetic reasons. Strabismus is associated with reduction of depth perception and,
if onset is in adulthood, double vision.
Strabismus presents a cosmetic concern, especially for school-age children.

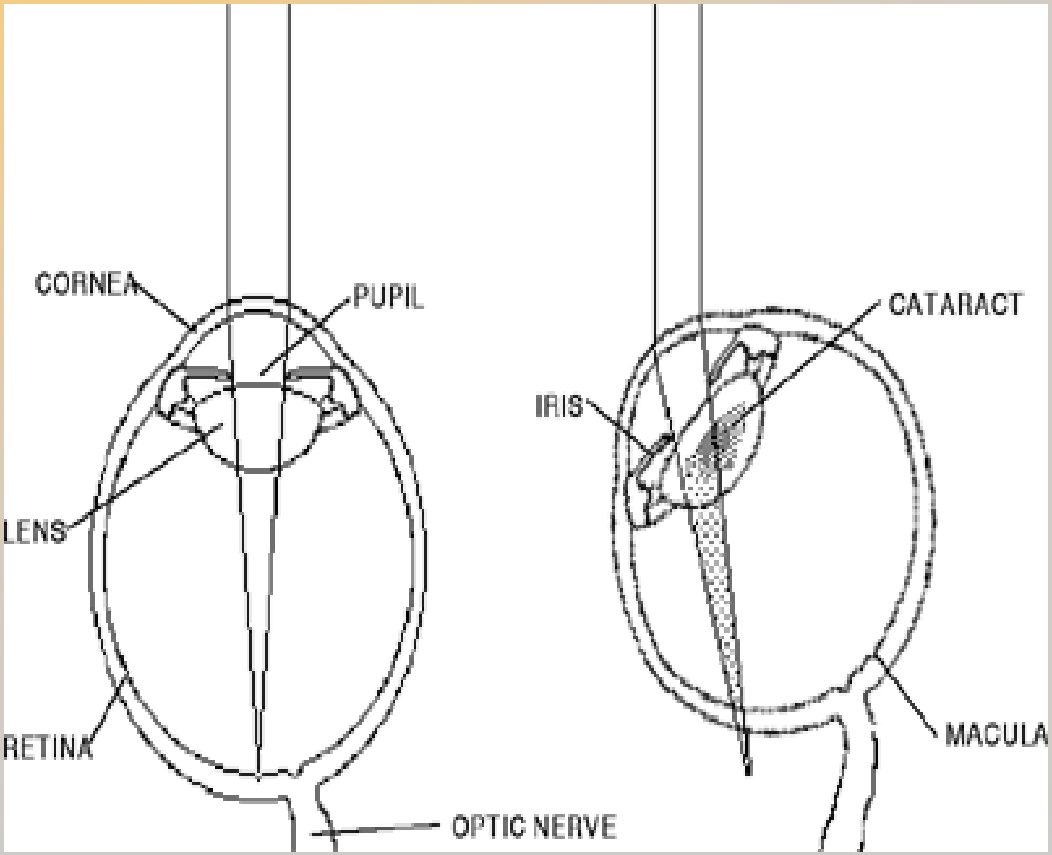
strab

When an individual's eyes are straight, they are said to have **orthotropia.** This indicates that both eyes are aimed at the same spot. The brain fuses the two separate images into one three-dimensional image.

If the eyes are misaligned, depth perception is substantially reduced.
when one eye is deviated in early childhood, the brain may learn to ignore the image from that eye, and amblyopia (lazy eye)



Amblyopia



In adulthood, the affected individual usually experiences double vision. This occurs because the brain, which no longer has the "plasticity

Comitant strabismus

Comitant .

Noncomitant .

Types of comitant strabismus

Esotropia

Exotropia

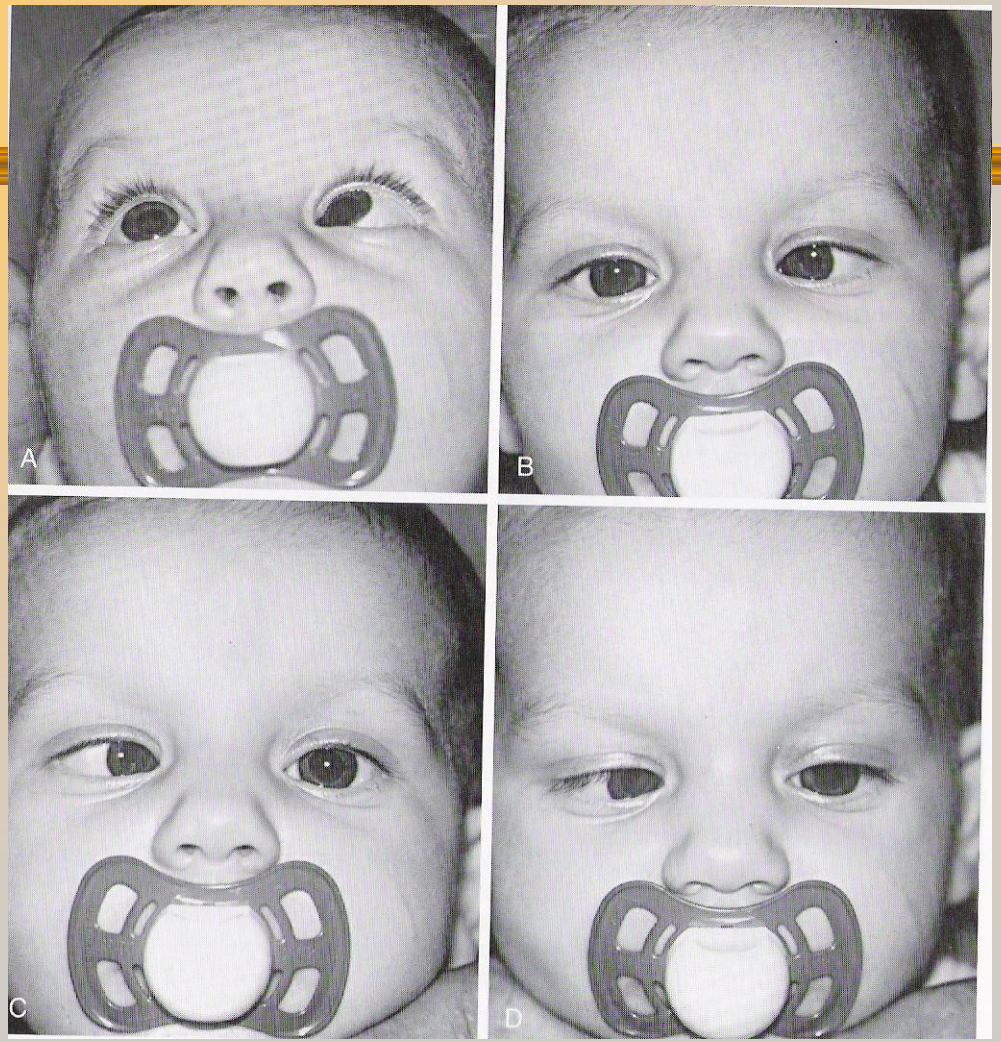
Esotropia divided into :-

Infantile esotropia.

Acquired esotropia

Infantile esotropia

Infantile esotropia is the inward deviation of the eyes noted before the patient reaches age 6 months.


A
B
C
D

Infantile esotropia

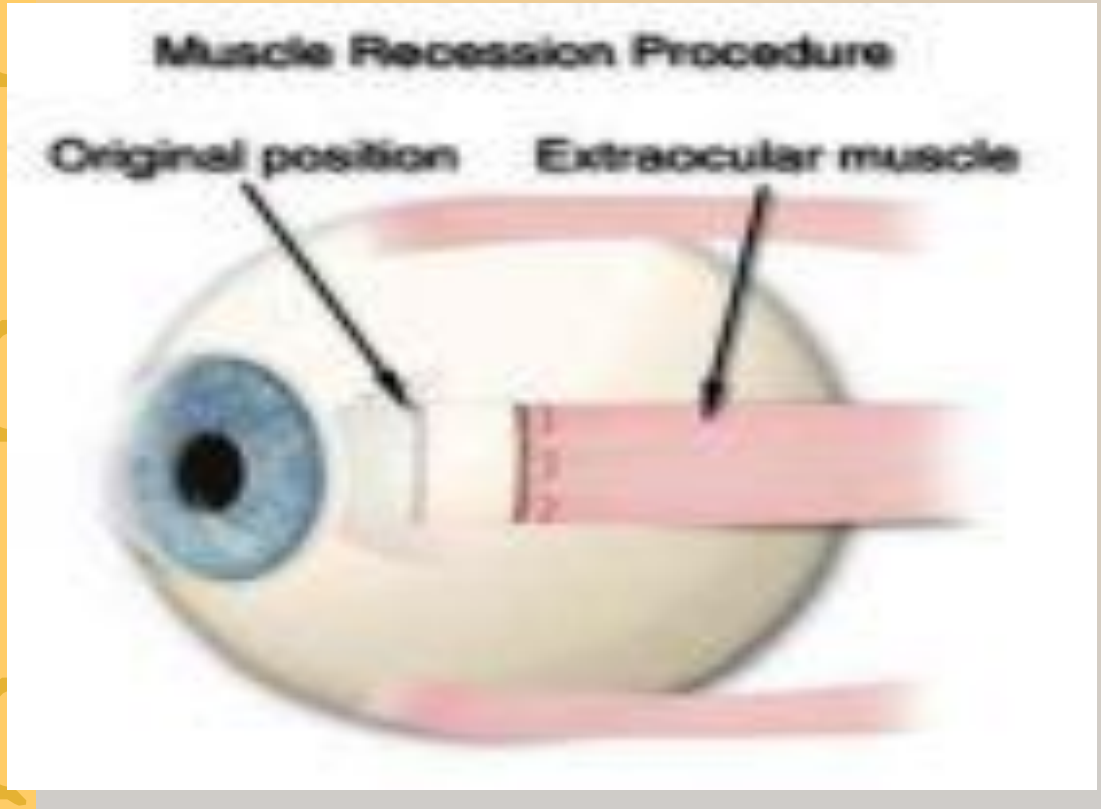
When the eyes are misaligned in childhood, binocular vision, or the ability of the brain to use the two eyes together, does not develop.

Inf ET

Infantile esotropia is not believed to be connatal but rather develops in the first few weeks or months after birth.

Inf ET

Classic infantile esotropia is constant and involves a large angle of deviation exceeding 20 prism diopters (PD) on corneal light reflex measurement


Muscle Recession Procedure
Original position
Extraocular muscle

Pseudostrabismus

Pseudoesotropia is a condition in which alignment of the eyes is straight (also known as orthotropic); however, they appear to be crossed.

Pseudostrabismus

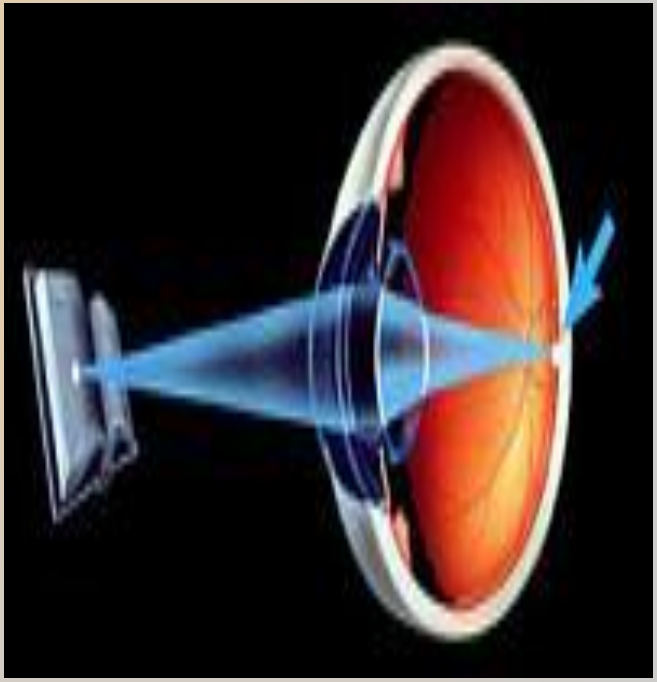
- This condition most commonly occurs in infants when a flat nasal bridge and prominent epicanthal folds tend to obscure the nasal portion of the sclera

pseudostrabismus

A careful ocular examination (eg, pupillary light reflex) reveals that the eyes are straight.
Using the cover-uncover test, the examiner finds that the patient manifests no deviation.

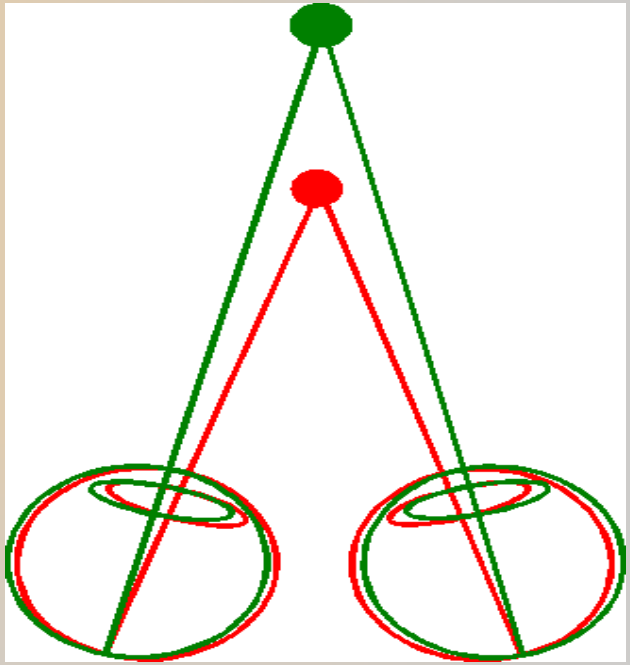
Accomodation

Rays of light from the object diverge, these light rays are then converged by the crystalline lens in an attempt to focus them on the retina. For this to happen, the lens will accommodate, (become thicker centrally and optically more powerful) causing further bending of the rays of light until they focus on the retina.



Near Reflex

- Accomodation
- Convergence
- Meiosis

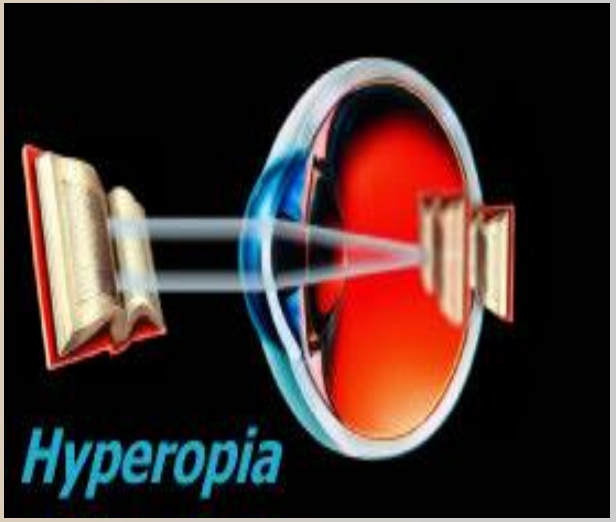


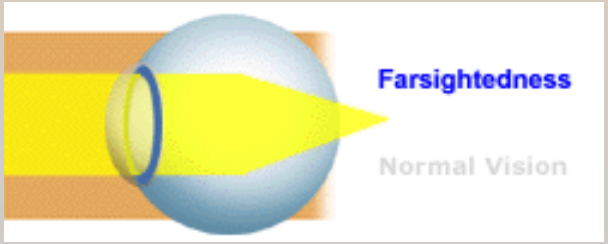
Acc ET

Age: This condition usually presents in patients aged 2-3 years

Acc esotropia

Relationship of hyperopia to Acc Esotropia





Acc ET

•Perform cycloplegic refraction on all children by using the retinoscope and loose lenses. Cycloplegia is achieved with Mydriacyl 1% and cyclogel 1%.

Clinical features of Acc ET

- ***Refractive error usually +3_+4***
- ***May presipitated by acute illness or trauma***
- ***Start intrmittent and if not treated become constant***

Do we do surgery for Acc ET ?

If the farsighted glasses control the crossing of the eyes, eye muscle surgery is never recommended!


23 10:12 AM


23 10:12 AM


23 10:13 AM

Exodeviation

Exodeviation is a horizontal form of strabismus characterized by visual axes that form a divergent angle.

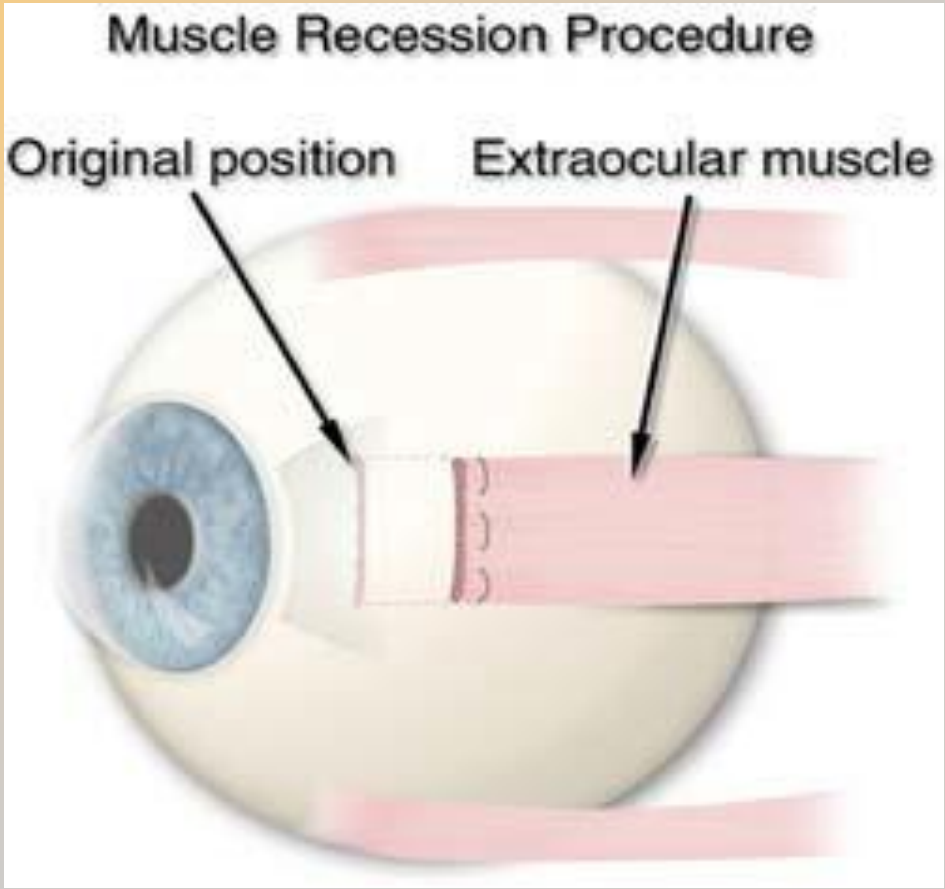
XT

intermittent exotropia can have an early onset, with 25-40% of cases occurring before the second year of life.

Basic type of Exotropia

Dsc = 55 xt

Nsc = 55xt


Muscle Recession Procedure
Original position
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