

# PSEUDO-STRABISMUS



Crossed  
Eyes?

May be not.....





**PSEUDO-  
STRABISMUS**

v/s

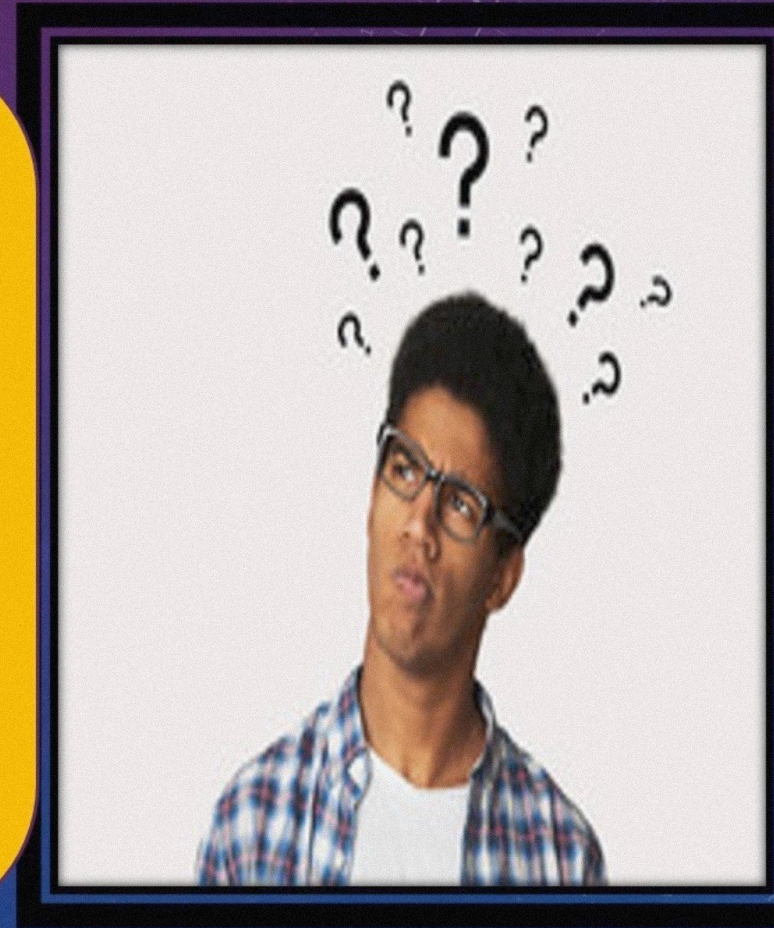
**TRUE  
STRABISMUS :**  
True deviation of  
the visual axis

*Apparent esotropia, exotropia, hypertropia or hypotropia*





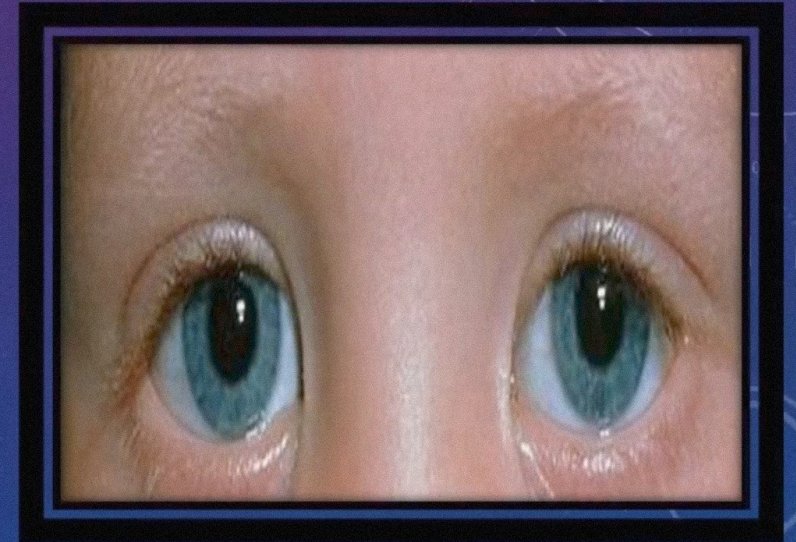
# **WHAT CAUSES PSEUDOSTRABISMUS ?**





# EPICANTHUS

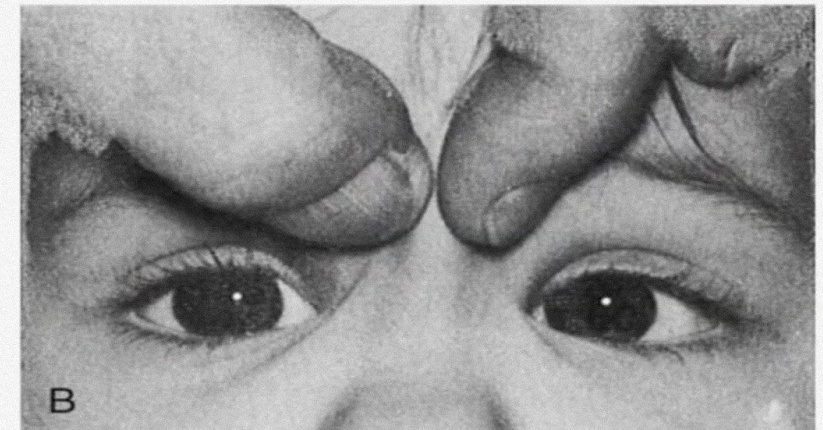
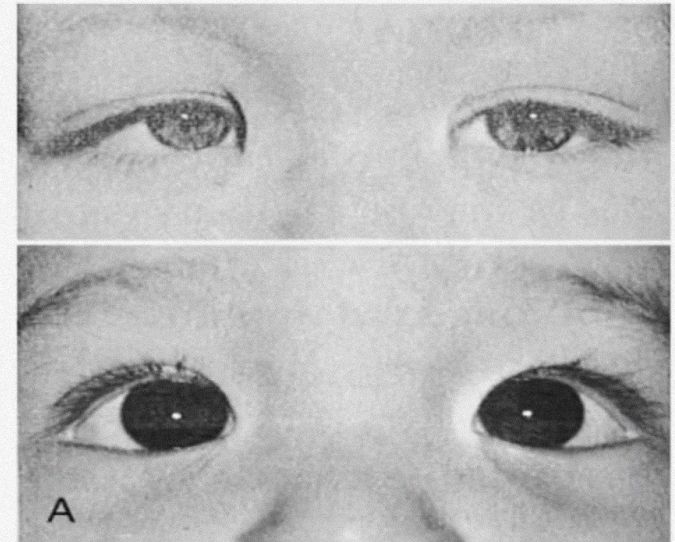
- **Semilunar fold of skin** running downward at the side of the nose and its concavity directed toward the inner canthus.
- Obscures the inner canthus → appearance of **esotropia**.
- Disappears as the **bridge of the nose** develops.





# PINCH TEST

- Pseudo strabismus disappears by lifting the skin from the nasal bridge



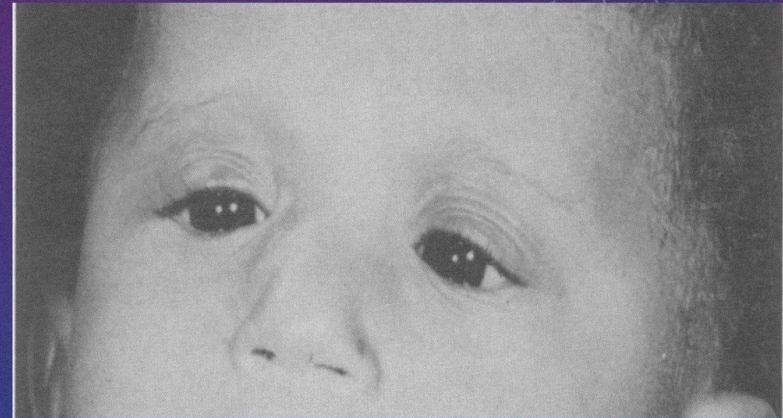
**FIGURE 12-2. Pseudostrabismus.** *A*, A prominent epicanthus may obscure some or all of the usually visible nasal aspects of the globe, thus giving the false impression that esotropia is present. *B*, For explanation, see text. (From Noorden GK von: Atlas of Strabismus, ed. 4. St Louis, Mosby-Year Book, 1983, p 29.)





# ASYMMETRICAL PALPEBRAL FISSURE

- **NARROW PALPEBRAL FISSURES** may create the impression that an esotropia is present.
- **ENOPHTHALMOS** → recession of the globe into the Orbit .





# ASYMMETRICAL PALPEBRAL FISSURE



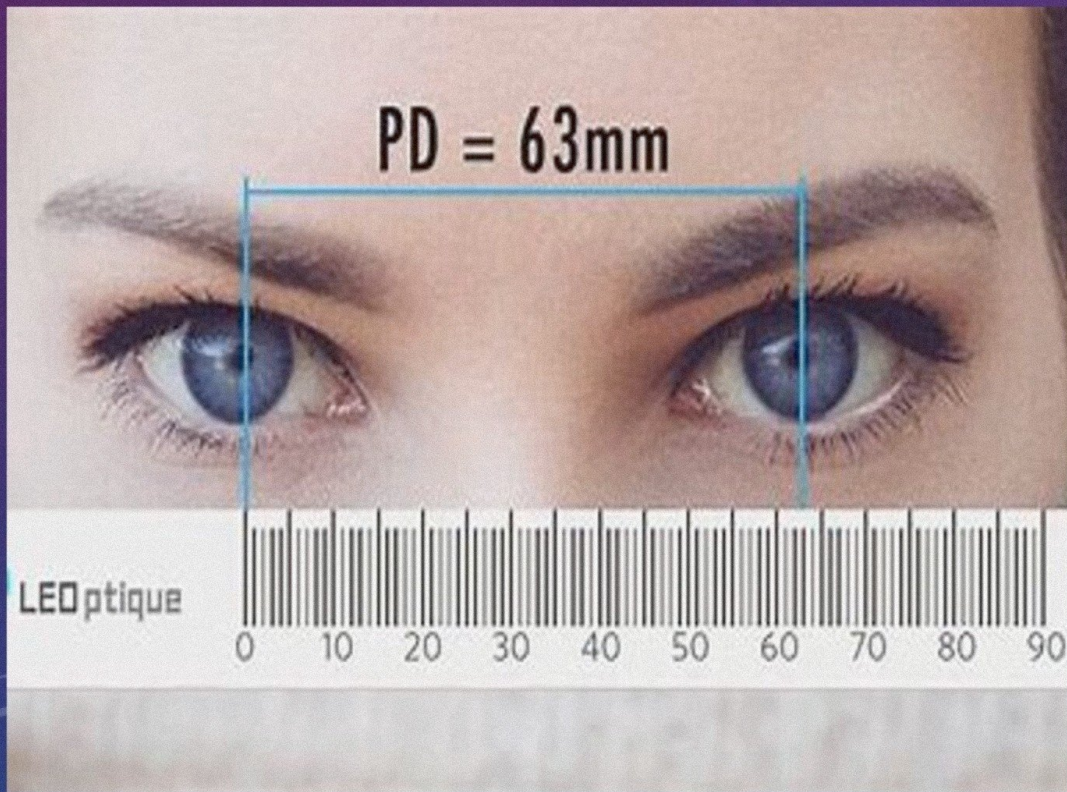
**LARGE PALPEBRAL FISSURE**

**EXOPHTHALMOS ( PROPTOSIS )** can give an appearance of exodeviation





# INTER PUPILLARY DISTANCE (IPD)



**NARROW IPD** → Produces closeness of the eyes and produces apparent esotropia

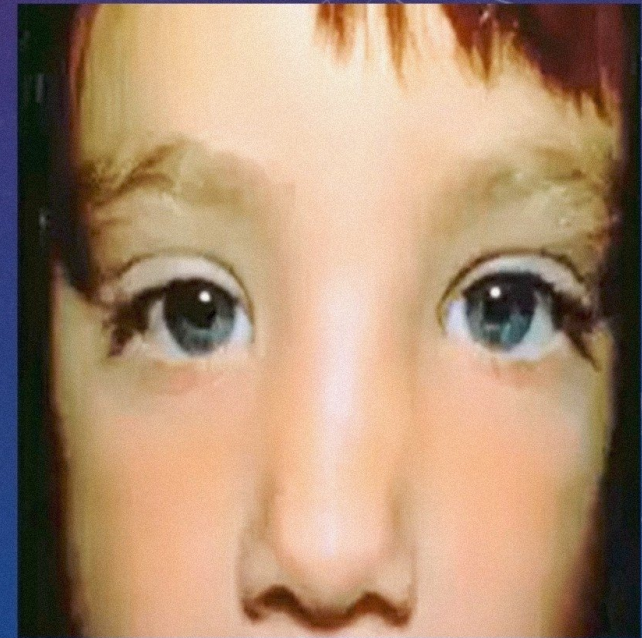
**WIDER IPD** → produces farness simulating exotropia





# DISPLACEMENT OF ORBITS & FACIAL ASYMMETRY

- Displacement of the orbits, either as a result of a congenital condition such as hypertelorism or acquired following trauma, can occur without disruption of BSV and can give rise to a pseudostrabismus of any type, depending on the nature of the displacement.





# ANGLE KAPPA ANOMALIES

- **A positive angle kappa** → PSEUDOEXOTROPIA
- **A negative angle kappa** → PSEUDOESOTROPIA
- Usually both eyes are affected, but the angle kappa may be asymmetrical, increasing the possibility of pseudostrabismus.
- If only one eye is affected the squinting appearance is accentuated





# PSEUDO ESOTROPIA

NEGATIVE ANGLE  
KAPPA

EPICANTHUS

NARROW IPD

SMALL PALPEBRAL FISSURE

ENOPHTHOLMOS





# PSEUDO EXOTROPIA

POSITIVE ANGLE  
KAPPA

NARROW LATERAL  
PALPEBRAL FISSURE

Wider IPD



WIDE PALPEBRAL FISSURE

EXOPHTHOLMOS





# PSEUDO HYPER/HYPOTROPIA

**Lid position**  
**Ptosis : hypertropia**  
**Inverse ptosis : hypotropia**

**FACIAL ASYMMETRY**





- **ARE THERE OTHER WAYS TO CONFIRM ?**

By tests to prove whether Bifoveal binocular single vision is present





- **HCRT (Hirschberg corneal reflex test )**
- **COVER TEST : No movement on cover**
- **STEREOPSIS ( random dot test)**
- **TESTING MOTOR FUSION ( 15 or 20 PD test)**
- **Visual acuity ( assuming rest all is normal )**





# HCRT TEST

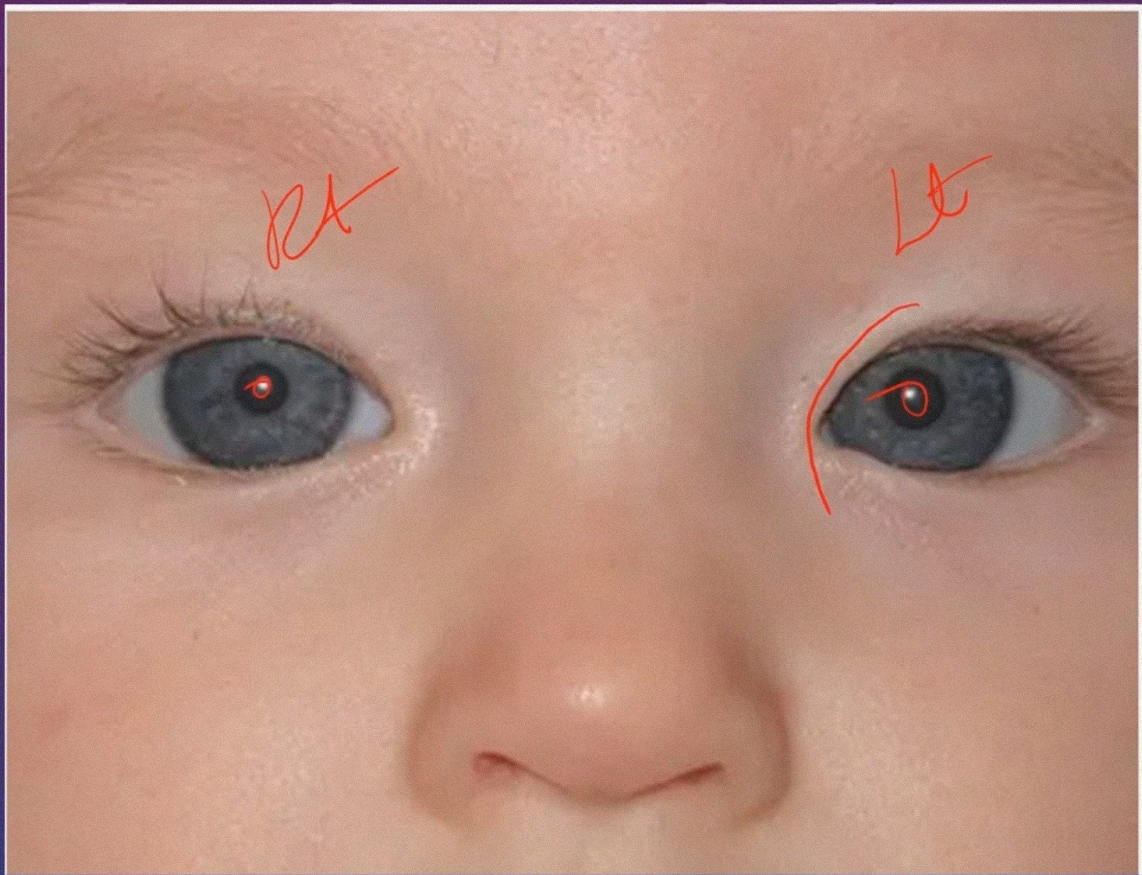
- The best means of estimating the relative position
- Patient fixate a penlight at near vision and then at distance.
- If reflected images from the two corneas appear centered under both conditions → **NO SQUINT**













# BASE OUT PRISM TEST

- Can be demonstrated in children aged from 4 to 6 months onwards
- With a **15  $\Delta$**  or **20  $\Delta$**  held **base-out** in front of each eye in turn.
- If binocular single vision is present the eye under the prism will adduct whilst the other eye first abducts and then adducts to regain fusion





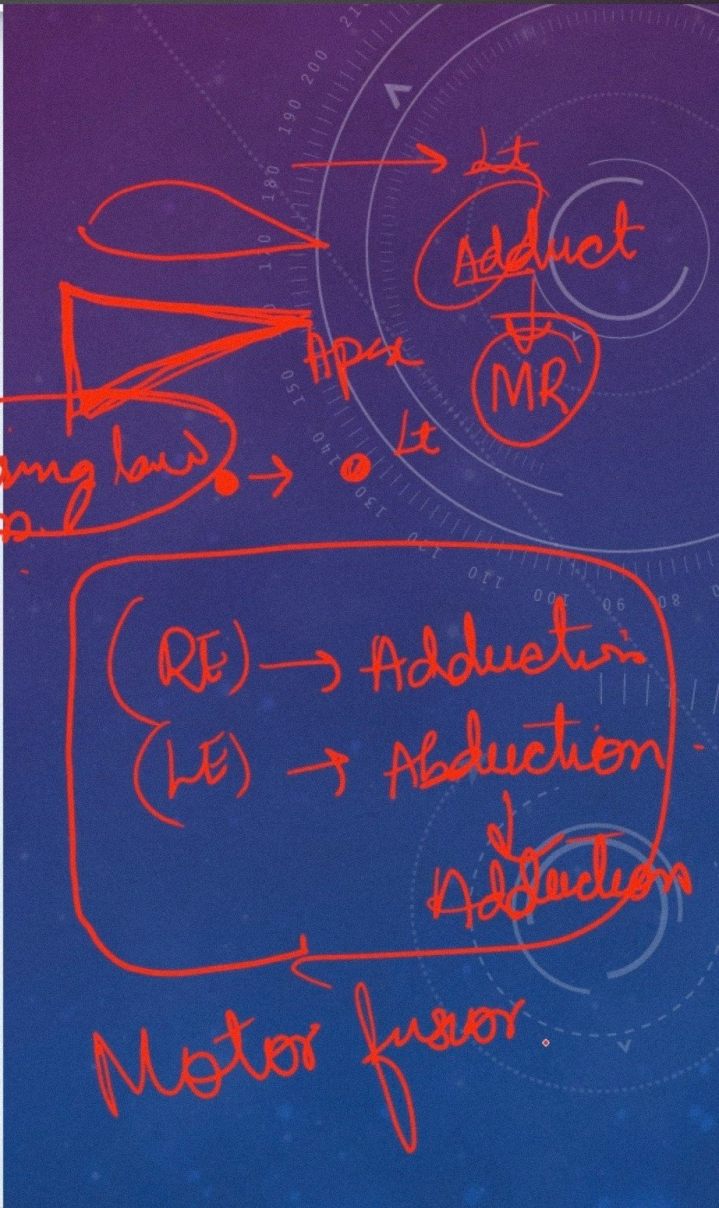
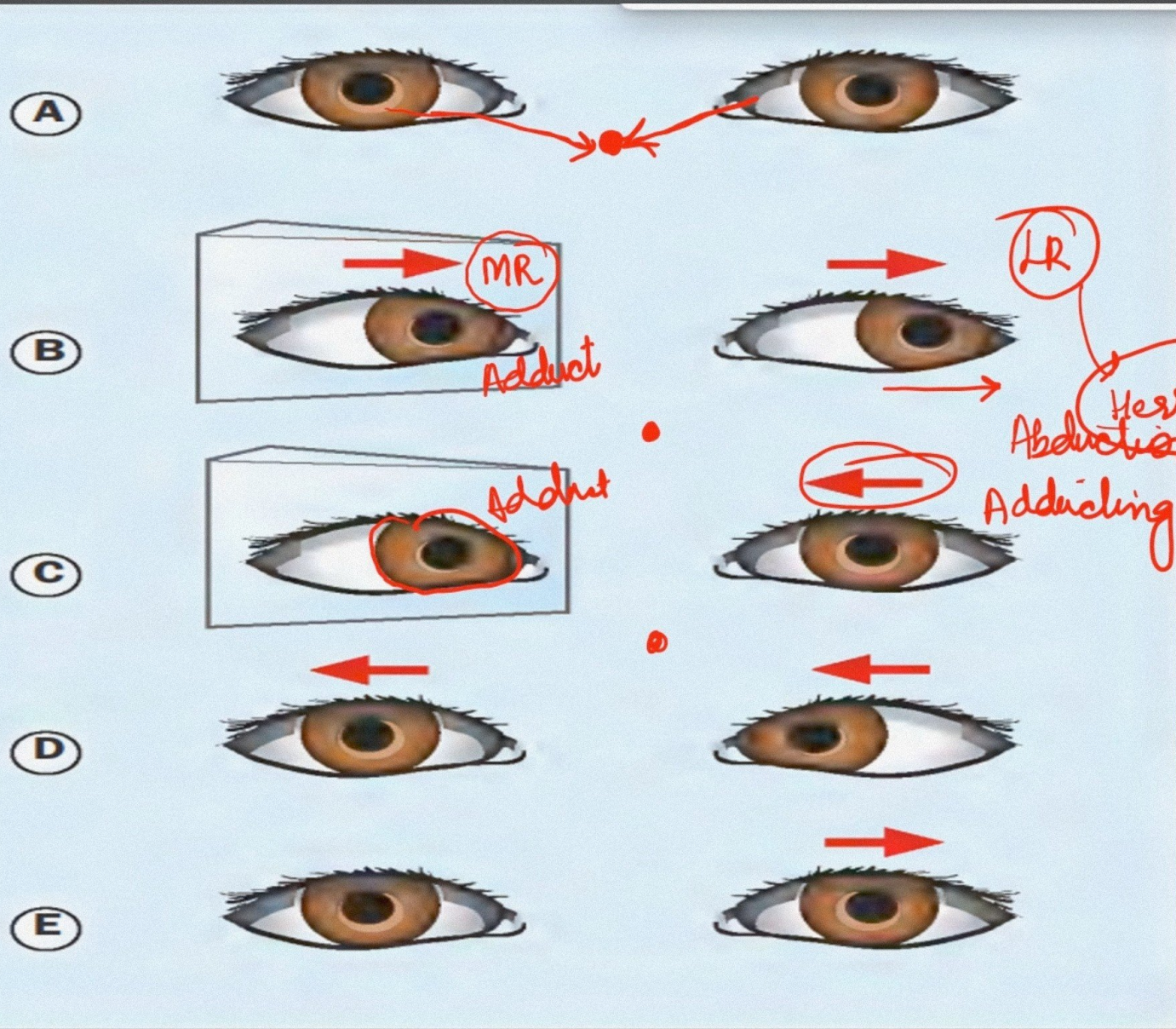


Fig. 18.24 Base-out prism test (see text)





# CLINICAL NUGGET

- Pseudostrabismus can be present when there is a true squint and may mask or accentuate its presence
- A Child should be kept under observation even though no convincing evidence of strabismus has been found.
- **A family history of refractive error or strabismus**
- **A significant heterophoria (even a small esophoria is significant)**
- **A tendency to close one eye in sunlight, indicating a possible intermittent exotropia**

