



Lower Eyelid Malposition



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Involutional Ectropion



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Eyelid Retraction




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Involutional entropion



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Trichiasis



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Dynamic malposition – e.g. blink lag



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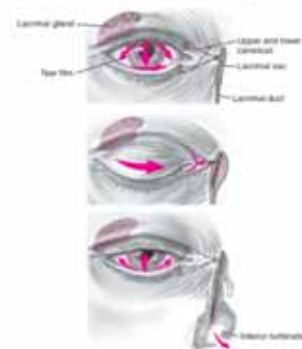
Pathophysiology

- Involitional
 - Horizontal laxity
 - Vertical laxity
- Cicatricial
- Paralytic
- Mechanical
- Negative vector (prominent eye, midface ptosis, or both)

Examination essential:
assess eyelid laxity

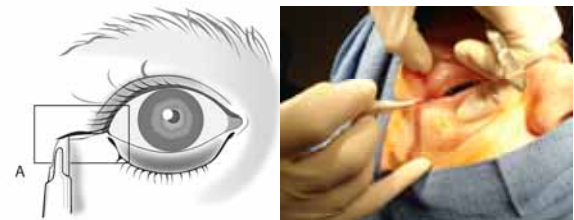


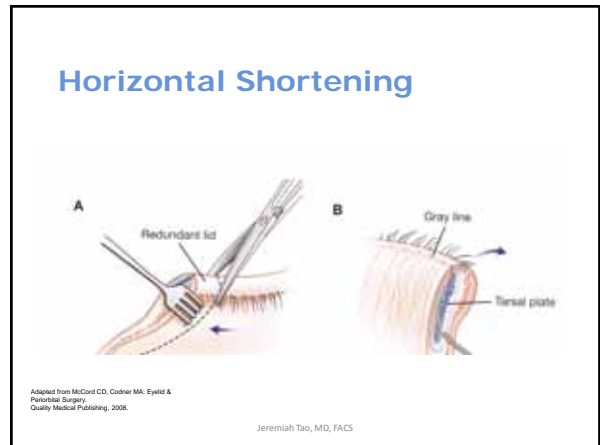
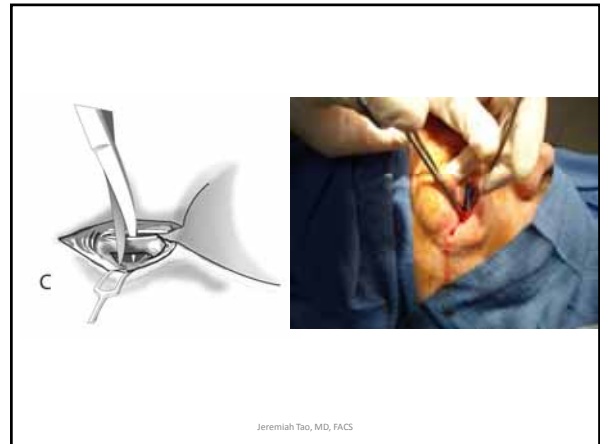
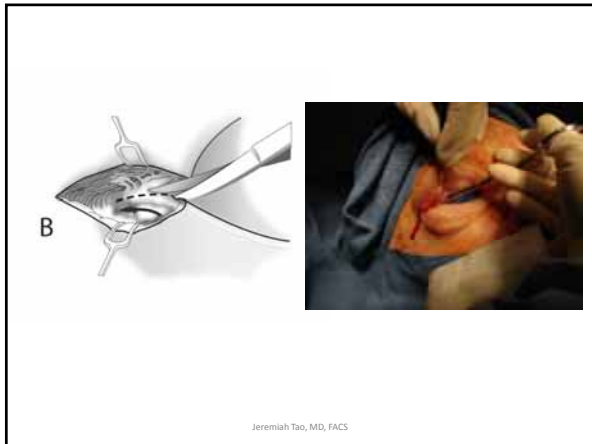
Lacrimal Pump



Tarsal Strip Procedure for the Correction of Tearing

Valerie L. Voth, M.D.^a John B. Wells, M.D.^b Sharon E. Harrison, M.D.^c
and Guy G. Henry, M.D.^d





Canthoplasty: 2. secure to periosteum

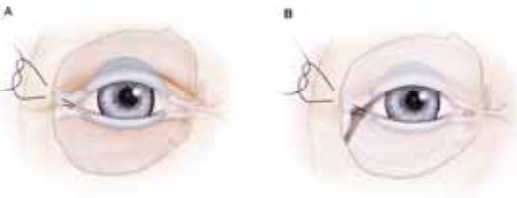


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Canthoplasty

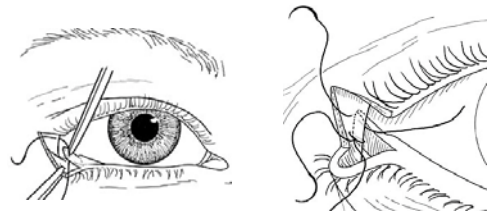


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Anderson R, Gordy D. The lateral tarsal strip procedure. Archives of Ophthalmology. 1979, 97(11):2192-2196.



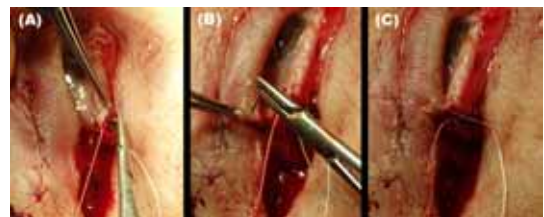
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Upper & lower lid length disparity



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Gray line to gray line suture



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Tarsus to tarsus then periosteum
(after upper eyelid shortening)



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Tarsal fixation

- **Usually Periosteum**
- Drill hole
- Miniplate
- Wire

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Drill hole



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Medial ectropion: lateral anchoring
often insufficient



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Medial spindle procedure

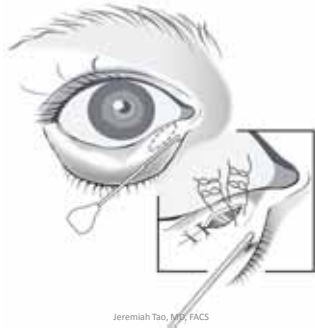


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Medial Spindle



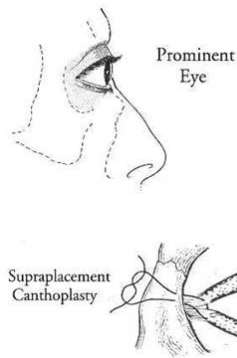
- COMPLICATIONS OF LATERAL TARSAL ANCHORING:**
- EXPOSED SUTURES
 - GRANULOMA
 - DEHISCENCE, HORIZONTAL PHIMOSIS OF PALPEBRAL APERTURE
 - UPPER AND LOWER EYELID LENGTH DISPARITY
 - CLOTHESLINING THE GLOBE

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Globe “clotheslining”



Examination pearl # 2: Assess globe prominence



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BUT NOT
TOO HIGH!!



Vertical vector eyelid considerations

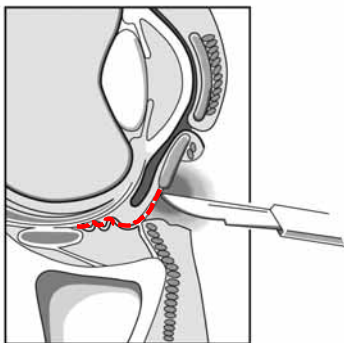
- Globe prominence
- Vertical laxity
- Vertical cicatrix
- Lower eyelid retractors
- Midface ptosis

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Lower eyelid anatomy



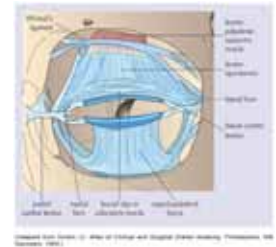
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Retractor band or capsulopalpebral fascia (CPF)

- Analogous to levator aponeurosis
- Originates from sheaths of the inferior rectus and inferior oblique muscles



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CPF accounts for lower lid movement on vertical ductions



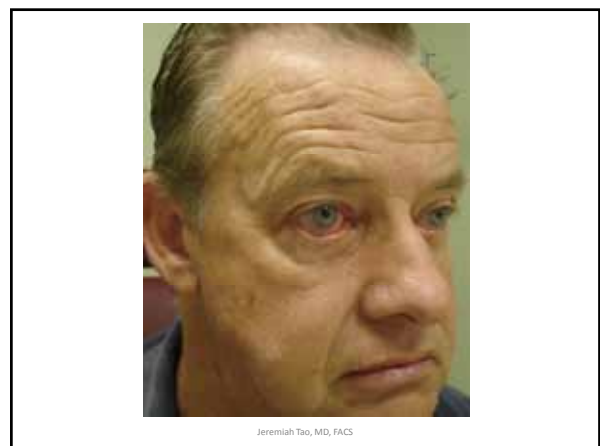
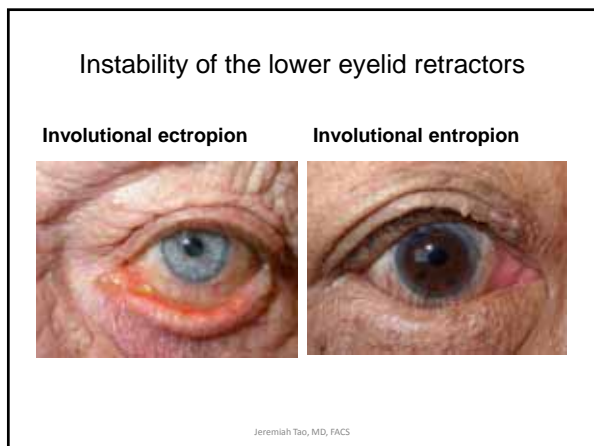
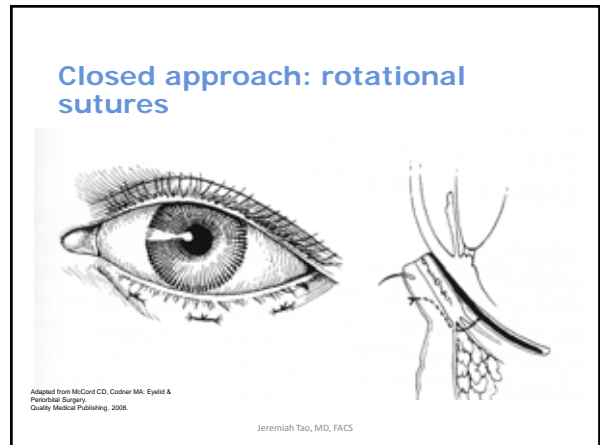
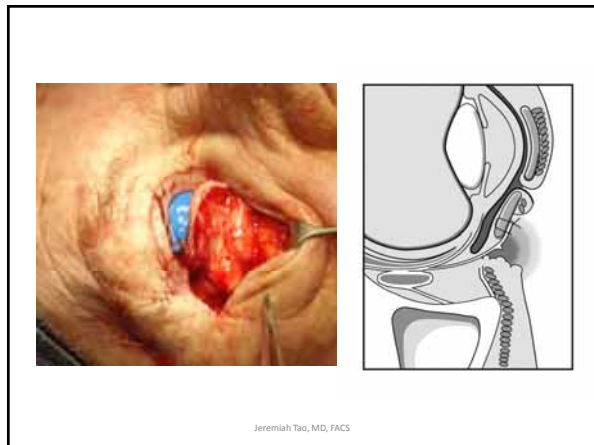
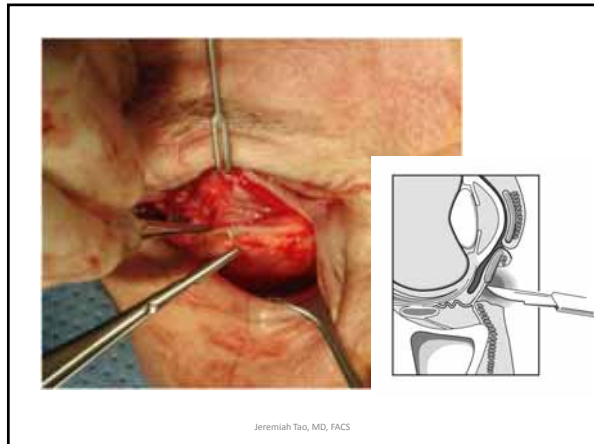
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Canthoplasty alone will likely fail



Sheepers et al. A Randomized Controlled Trial Comparing Everting Sutures with Everting Sutures and a Lateral Tarsal Strip for Involutional Entropion. Ophthalmology. Feb 2010;117:2, 352-55.

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Central lower lid has limited support



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Examination pearl # 3:
Assess vertical vectors... "2 finger test"



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- *Patipa M. [Cosmetic Discussion]. PRS June 2005; 115(7):2115-2117.*
- One finger at lateral canthus to mimic canthal fixation
- If second finger necessary to achieve correct position of mid eyelid, canthal anchoring alone WON T WORK.

Treating lid retraction

- Recess eyelid retractors, then:
- Add tissue
- Lift tissue
- Both of the above

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Lengthen eyelid:
recess retractors & release any vertical cicatrix



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Dissection down to conjunctiva



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Horizontal tightening



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Canthal anchoring



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Skin graft

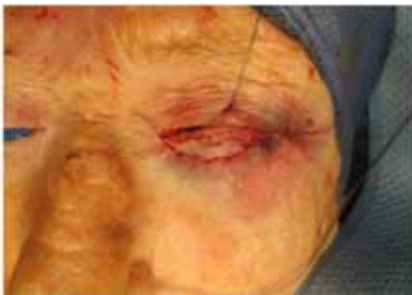


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Frost suture, vertical traction



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Skin graft to lower eyelid

- Effective
- May leave an undesirable scar or noticeable tissue mismatch; patient selection is key:
 - Fair complexion
 - Rhytids (elderly)

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Alternative to skin graft:

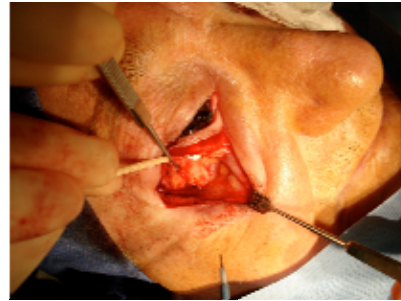
Midface lift with or without middle or posterior lamella spacer



Image courtesy of Sonny Mccord, MD

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Retro-orbicularis dissection



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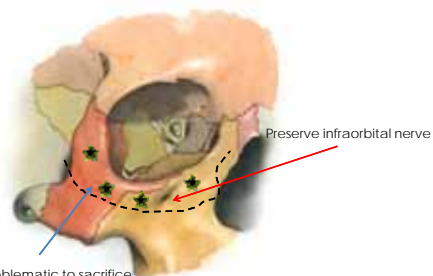
Periosteal release (pre-periosteal or subperiosteal)



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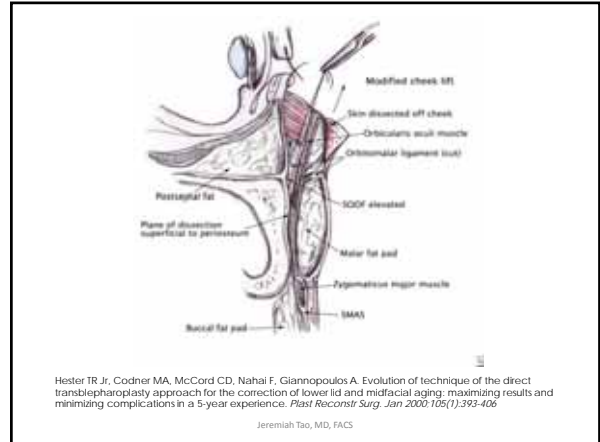
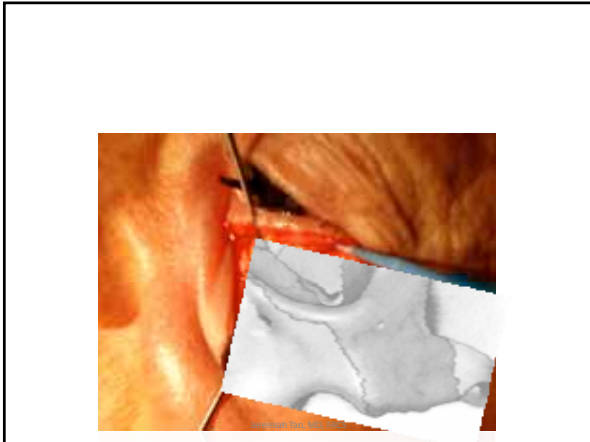


Typically not problematic to sacrifice zygomaticofacial & zygomaticotemporal nerves

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Periosteal release

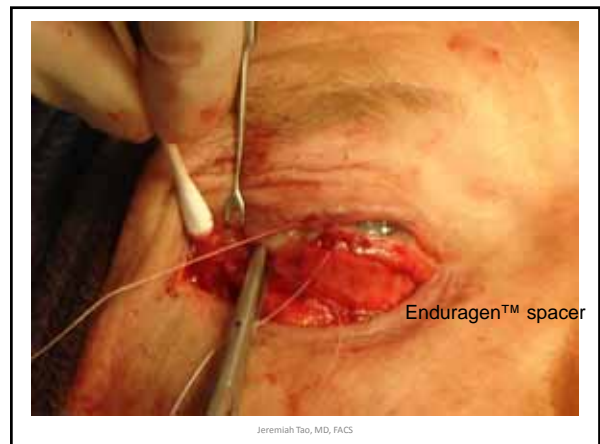
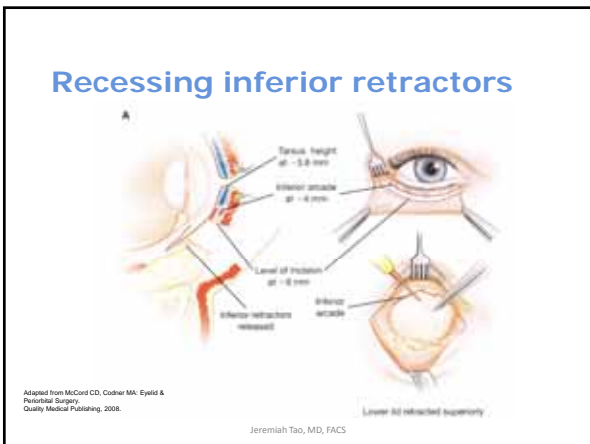


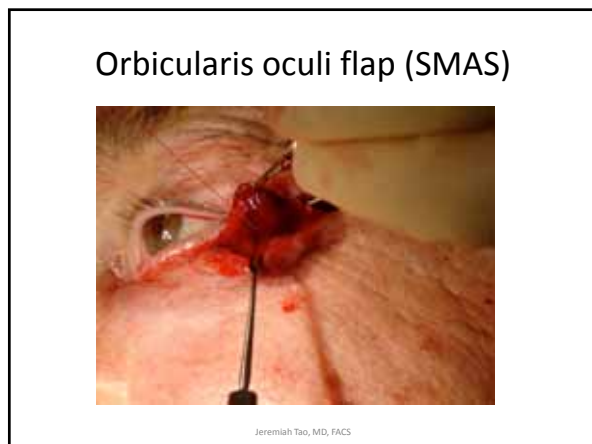
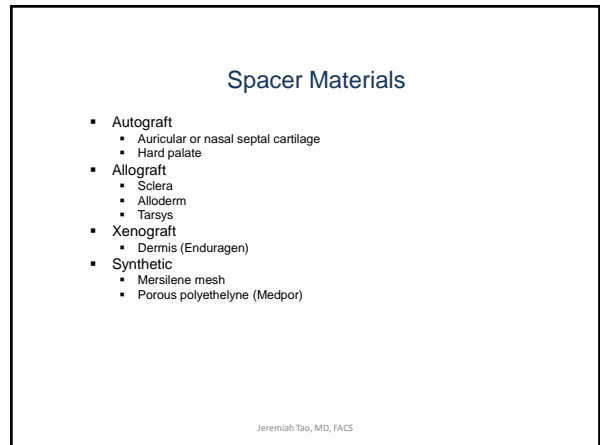
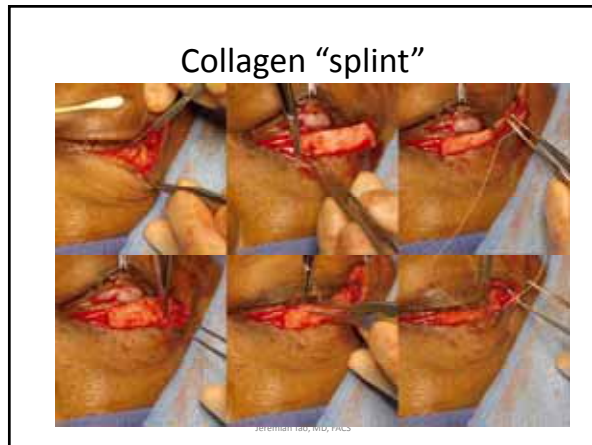
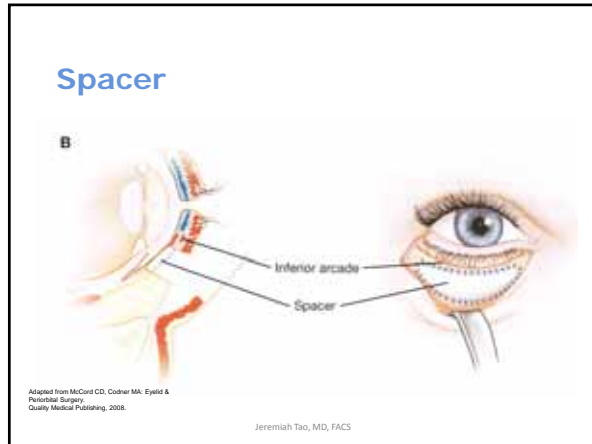


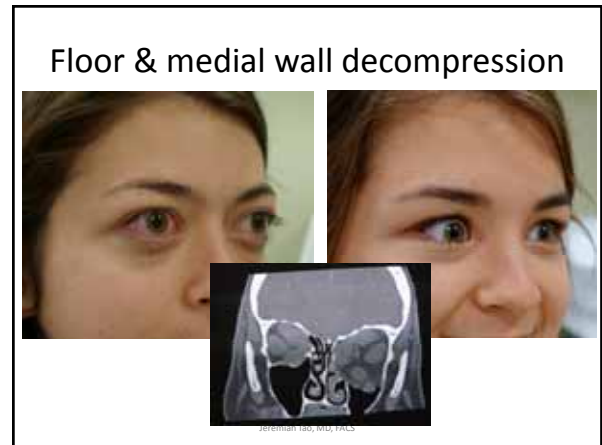
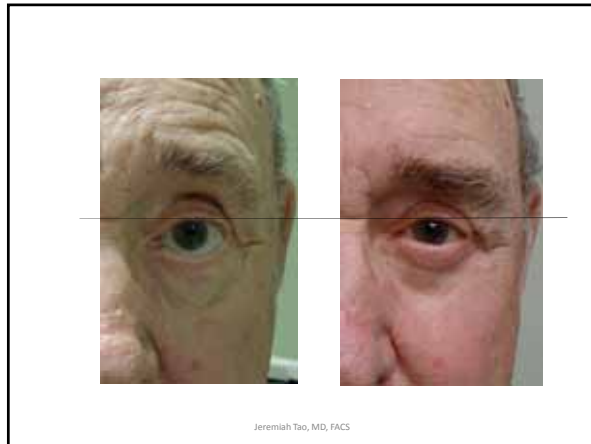
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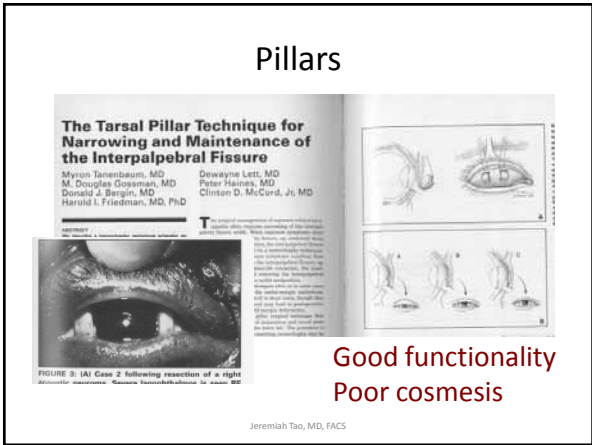
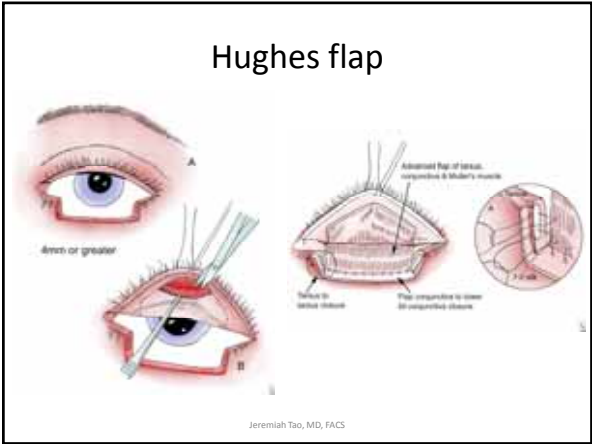
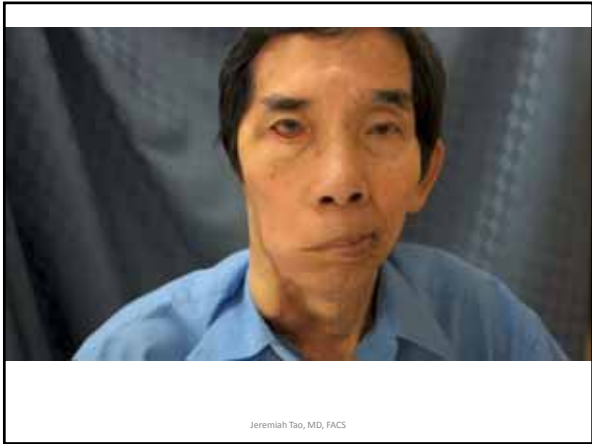


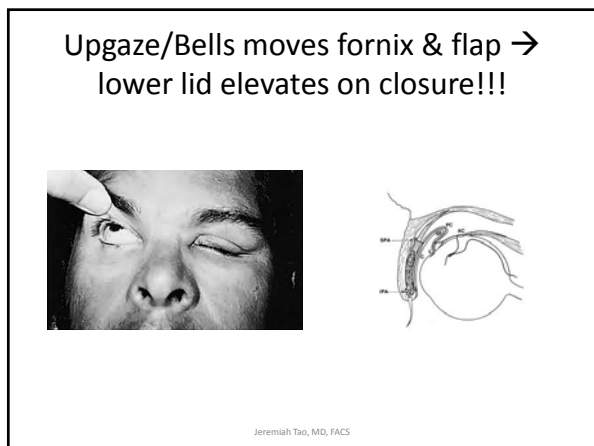
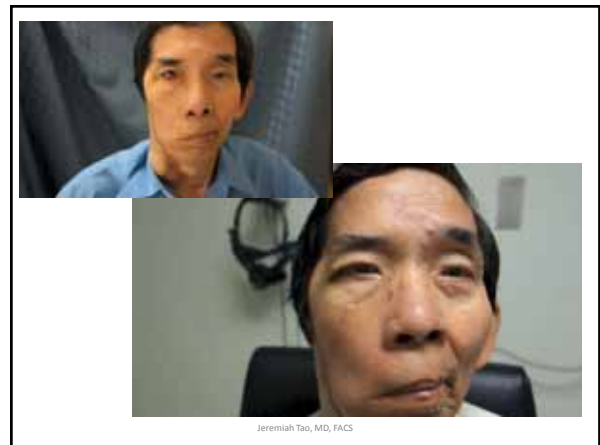
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Conclusions

- Correct treatment for lower eyelid malposition depends on clinical findings:
 - Laxity (horizontal & vertical)
 - Snap test
 - Lid distraction test
 - Prominent globe
 - Exophthalmometry
 - Midface ptosis and other vertical vectors
 - 2 finger test
 - Paralysis
 - Study the blink!

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Thank you!



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