UPPER LID EVAL – BEYOND THE BREAD & BUTTER

Deborah Wu MD
Specialty Eye Institute
Kalamazoo, MI
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DDX

- Dermatochalasis
- Involutional ptosis
- Brow ptosis
- Other considerations

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UPPER LID EVALUATION

I. Patient history – lifestyle complaint!

II. Exam
- A. vertical skin measurement
- B. levator fxn
- C. HOF
- D. crease & lash position
- E. brow position

III. Documentation

IV. Surgical correction

V. Complications

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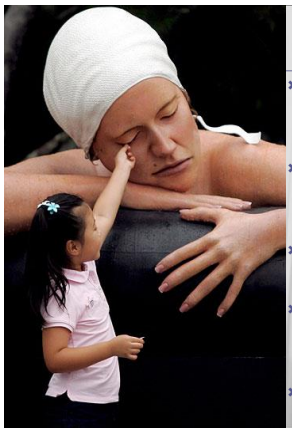

HISTORY:

- A heavy upper lid:"tired feeling"
- Dimming or problems w/peripheral vision
- Lifting brow/forehead
- Manually lifting the lids to see, esp when reading
- HA or neck pain from lifting brow or chin up positioning

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EXAM

- Objective Measurements
  - MRD1 & 2
  - LF
  - Vertical skin distance
  - Crease distance
  - Lash position
  - Brow position: ptosis, asymmetry
  - Lagophthalmos

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NORMALS

- Levator Function (LF) >12mm
- Margin To Reflex Dist (MRD 1) >2.5mm
- Vertical skin distance 20mm

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DOCUMENTATION: COSMETIC VS FUNCTIONAL

- **Insurance covers if appropriate signs/sx documented**
  - MRD1 </= 2.5 or palpebral fissure in downgaze </=1mm
  - Skin sits on lashes or dermatitis due to redundant skin
- **Need photos:**
- Full Face +
  - Ptosis: demonstrate low lid position with forced flash,downgaze shot
  - Dermatochalasis: Show skin touching lashes on straight gaze and side view
  - Brow ptosis: full face w/brow manually lifted
- **SuperiorVF:**
  - 12 degree or 30% improvement with taping

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INGREDIENTS TO A GOOD OUTCOME

- A. HOF
- B. Lid crease
- C. Lash ptosis
- D. FES
- E. Ptosis
- F. Brow ptosis

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DERMATOCHALASIS

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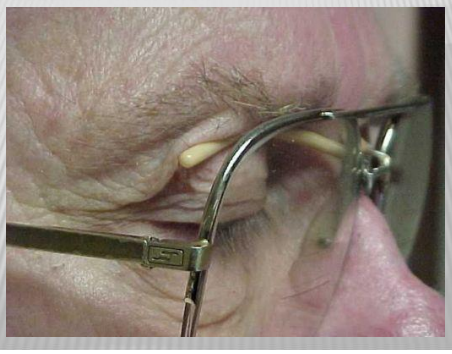
TREATMENT OPTIONS



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BLEPHAROPLASTY

- The amount of skin you leave behind is more important than the amount you take away.
- It is important to leave at least 1.5 to 2 cm of skin from the inferior eyebrow cilia to the lid margin to allow for adequate lid closure postoperatively.

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BLEPHAROPLASTY SURGICAL TECHNIQUE

- Mark skin with fine tip marker
  - Inferior edge: natural lid crease from lateral canthus to puncta
  - Temporal 15degree, nasal 30degree upswing.
  - Superior edge based on vertical skin measurements & pinch test with non-toothed forcep.

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- Running 6-0 plain
- Subcuticular 6-0 prolene CC1 needle, mastisol,steristrips

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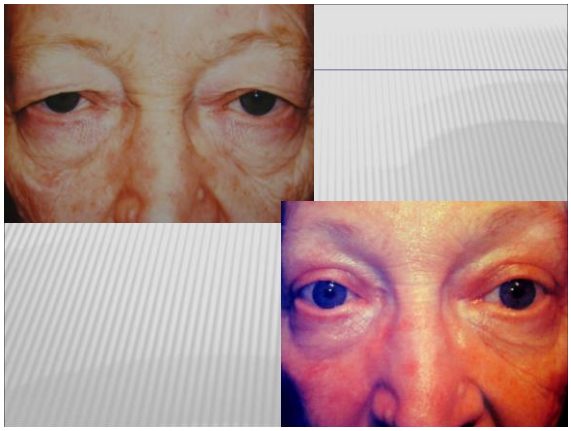

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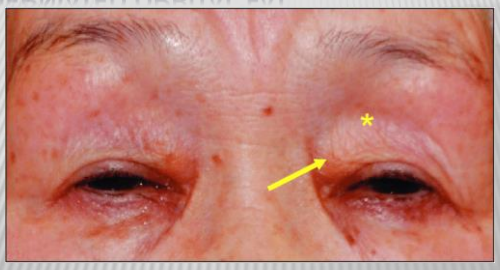
HERNIATED ORBITAL FAT



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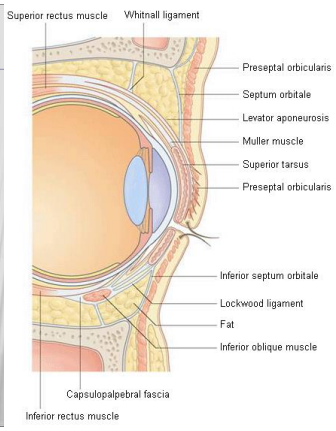
A. HERNIATED ORBITAL FAT:

Anatomical considerations:

Incise septum to get into orbital space

Upper lid has 2 fat pads



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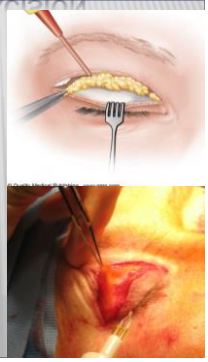
HERNIATED ORBITAL FAT EXCISION

- Medial fat pad is lighter due to metabolic differences
- Middle fat is elongated and darker
- Laterally watch out for lacrimal gland



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HOF REMOVAL

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B. LID CREASE

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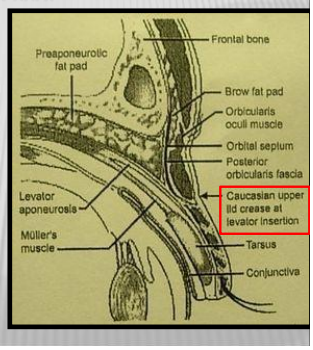
LID CREASE - ANATOMY

- Natural crease is formed by superficial fibers of levator aponeurosis to skin
- Located at 8-10mm above the lash line in the occidental lid



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SURGICAL CORRECTION

- Create a skin flap extending inferiorly to obliterate low/abnl crease
- Remove a strip of tissue (orbic, septum) at level of new crease

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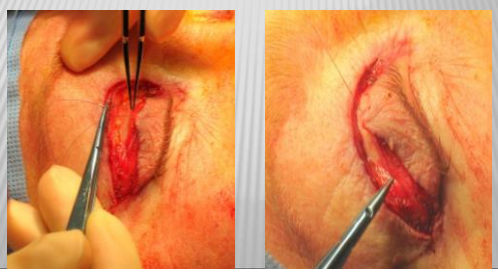
LID CREASE

- Anchoring sutures to form new crease: from orbic to levator aponeurosis



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BEFORE & AFTER

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LASH PTOSIS

- Lash ptosis may result from anatomic changes in the orbicularis muscle or tarsal plate.
- Associations:
  - FES
  - Ptosis
  - Dermatochalasis: excess skin changes lid muscle tension
  - Facial palsy: Mulhern et al study found that 42% of pts had LP. Loss of pretarsal orbicularis&Riolan muscle tone compromises support to muscle fibers&lash follicles.
  - Trichomegaly from latanoprost: Relatively larger eyelashes overcome support that maintains follicle projection

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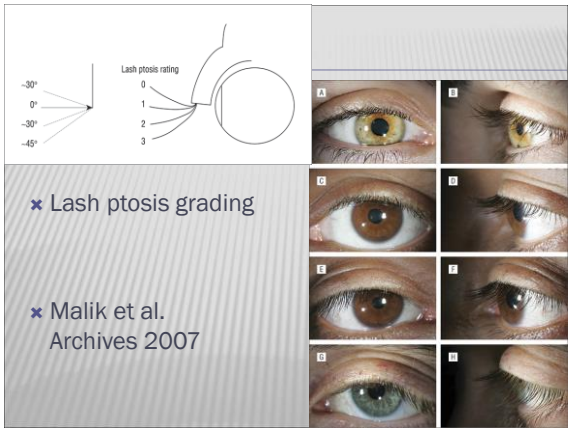

- Lash ptosis grading
- Malik et al. Archives 2007

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FES

- Spectrum of Disease: Acquired lax eyelid syndrome - floppy eyelid syndrome.
- Symptoms: eye irritation/pain, tearing, redness.
- Findings: Easily everted lid (unilateral or bilateral), lash ptosis, papillary conjunctivitis, can also cause ptosis.
- Histologically: tarsal elastin is markedly decreased while collagen structure remains normal.
- Ask about sleep apnea symptoms, consider sleep study
- Rx: Surgery

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PTOSIS

- MRD1 </= 2.5 or palpebral fissure in downgaze </=1mm
- Maybe congenital or acquired
- Surgery: external approach (levator advancement) vs internal approach (conjunctivomullerectomy)

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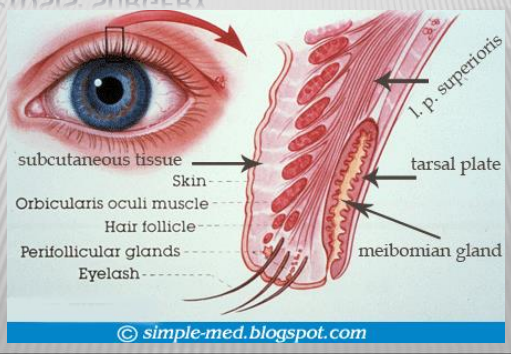
PTOSIS: SURGERY



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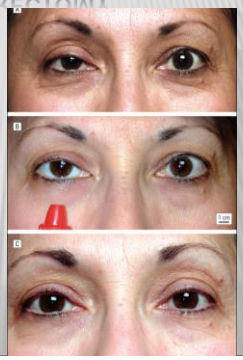
CONJUNCTIVOMULLERECTOMY

Posterior approach to ptosis surgery in patients that respond to phenylephrine testing in office.



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CONJUNCTIVOMULLERECTOMY

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BROW POSITION

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BASIC METHODS TO ALTER BROW

- Direct brow lift: Direct excision of ellipse of brow skin – WILL leave a scar
- Endoscopic forehead lift: Shifting of entire forehead backward to elevate brow

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DIRECT BROW LIFT

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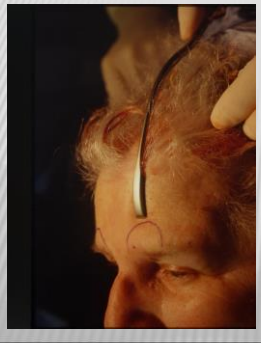
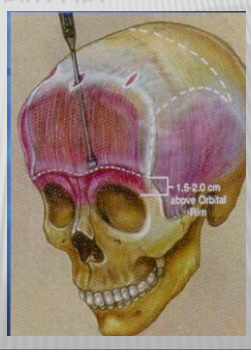
ENDOSCOPIC FOREHEAD LIFT





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ENDOSCOPIC BROW/FOREHEAD LIFT

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COMPLICATIONS

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NUMBNESS

- Resolve over several months
- No treatment
- Esthesiometry study

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SYMPTOMATIC DRY EYE/EXPOSURE KERATOPATHY

- Preoperative eval including lagophthalmos and checking Bell's reflex

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RETRACTION/LAGOPTHTHALMOS

- Excessive skin, orbicularis oculi, anterior lamella removal

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INFECTION: RESEPTAL/ORBITAL CELLULITIS

- CT orbits
- Oral vs IV antibiotics

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BLEEDING/VISION LOSS

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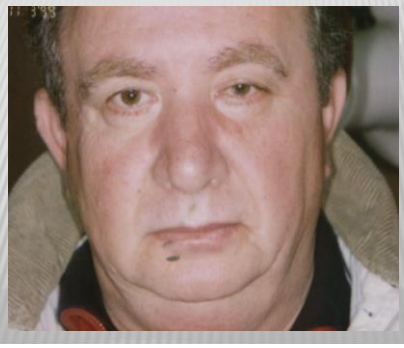
PTOSIS COMPLICATIONS: UNDERCORRECTION



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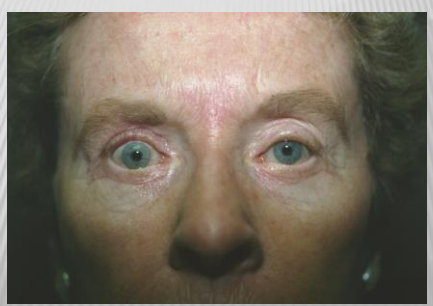
OVERCORRECTION



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CONTOUR IRREGULARITIES

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OTHER CONSIDERATIONS

- Myasthenia gravis
- Oculopharyngeal muscular dystrophy
- Chronic progessive external ophthalmoplegia
- Myotonic dystrophy
- Thyroid Eye Disease

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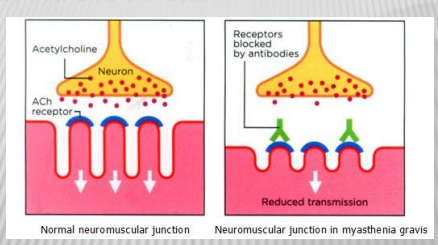
MYASTHENIA GRAVIS



- Rare chronic autoimmune disease
- Characterized by muscular weakness
- Caused by a defect in the action of acetylcholine at neuromuscular junctions

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MYASTHENIA GRAVIS

- May be generalized or ocular only
- Elicit history of symptoms worse at end of day
- May have fatigue with chewing, swallowing/breathing prob, generalized fatigue worse in evenings

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MYASTHENIA GRAVIS

- During exam look for fatigability of muscles (prolonged upgaze) and ice pack test
- Diagnostic labs: Ach binding/blocking/modulating Ab, MUSK
- Consider CXR if abnormal to rule out enlarged thymus
- May require neurology consult and EMG in setting of high suspicion and negative labs
- Tx: Mestinon, Steroids, IVIG Plasmapharesis

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OCULOPHARYNGEAL MUSCULAR DYSTROPHY

- Autosomal dominant muscle disorder
- Usually late onset
- OPMD is characterised by slowly progressive bilateral ptosis, dysphagia and proximal limb weakness, appearing after the age of 40 years

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OCULOPHARYNGEAL MUSCULAR DYSTROPHY

- French Canadian descent or Bhukaran Jewish descent
- Diagnosis made by genetic testing:PABPN1

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CHRONIC PROGRESSIVE EXTERNAL OPHTHALMOPLEGIA

- Array of hereditary myopathies affecting extraocular muscles
- Manifests as bilateral ptosis and ophthalmoplegia
- 60% cases of mitochondrial CPEO are due to mitochondrial DNA mutations (can be inherited or acquired)

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CPEO

- Tends to begin in young adulthood
- Bilateral symmetric ptosis usually is the first clinical sign
- Ophthalmoplegia may not become apparent for months to years
- Dx: Muscle biopsy

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MYOTONIC DYSTROPHY

- Ptosis with limited EOM
- Other findings: christmas tree cataract,frontal balding, intellectual impairment, heart block which distinguishes this from OPMD
- Diagnosis by genetic testing of DMPK gene

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THYROID EYE DISEASE

- Inflammatory disorder due to autoimmune reaction to tissues around the eye.
- Most patients with TED have signs and/or symptoms in both eyes but can be asymmetric in severity.
- Common manifestations of TED are swelling, diplopia, dry eye, lid retraction
- Unilateral lid retraction can create pseudoptosis of opposite eye

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DDX CONT'D

- Pseudoptosis (opposite eyelid retracted, ie:TED)

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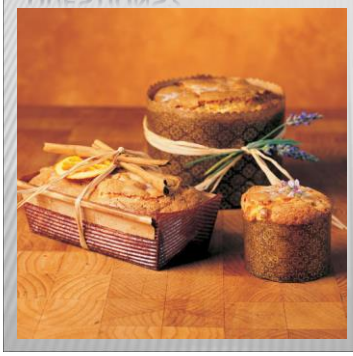
QUESTIONS?



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THANK YOU

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