#### Cosmetic Eyelid Surgery Part 1

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#### No Financial Disclosures







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# Outline

- Periorbital Anatomy
- Upper Blepharoplasty
- Eyebrow and Forehead Lift
- Lower Blepharoplasty
- HA Filler and Fat Transfer
- Case Studies

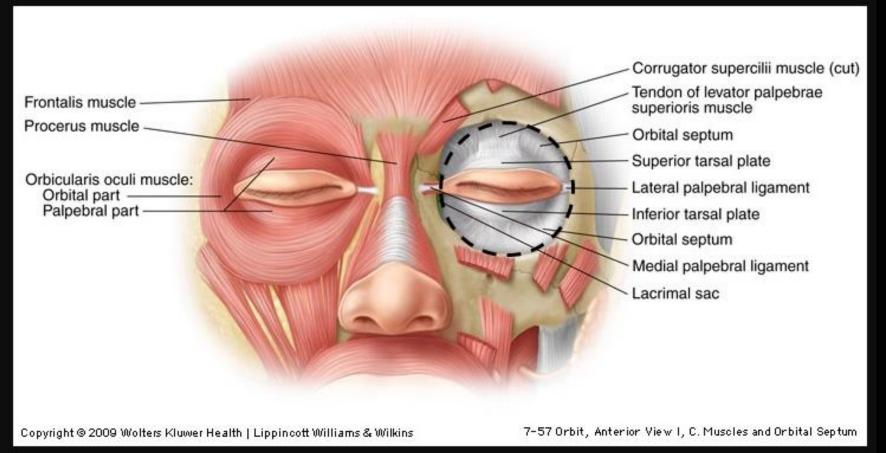


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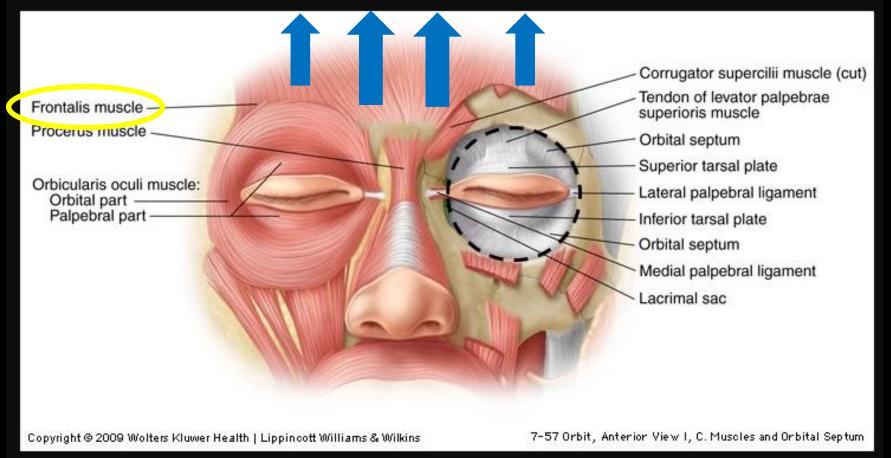


#### Periorbital Anatomy



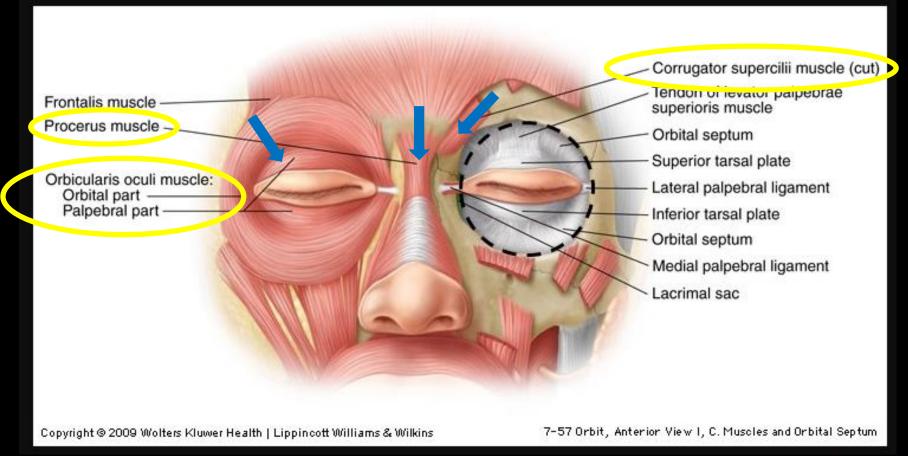


#### Brow Elevators





## Brow Depressors





## "Chemical Brow Lift"





XX

X

XX

X



# Avoid THIS!





CAUT

#### The "Spocked" Brow

## Medial Brow Anatomy

- Corrugator is
  DEEP to the frontalis mediall
- Botox injected superficially in t area
   → frontalis
- Botox injected d
  → corrugator



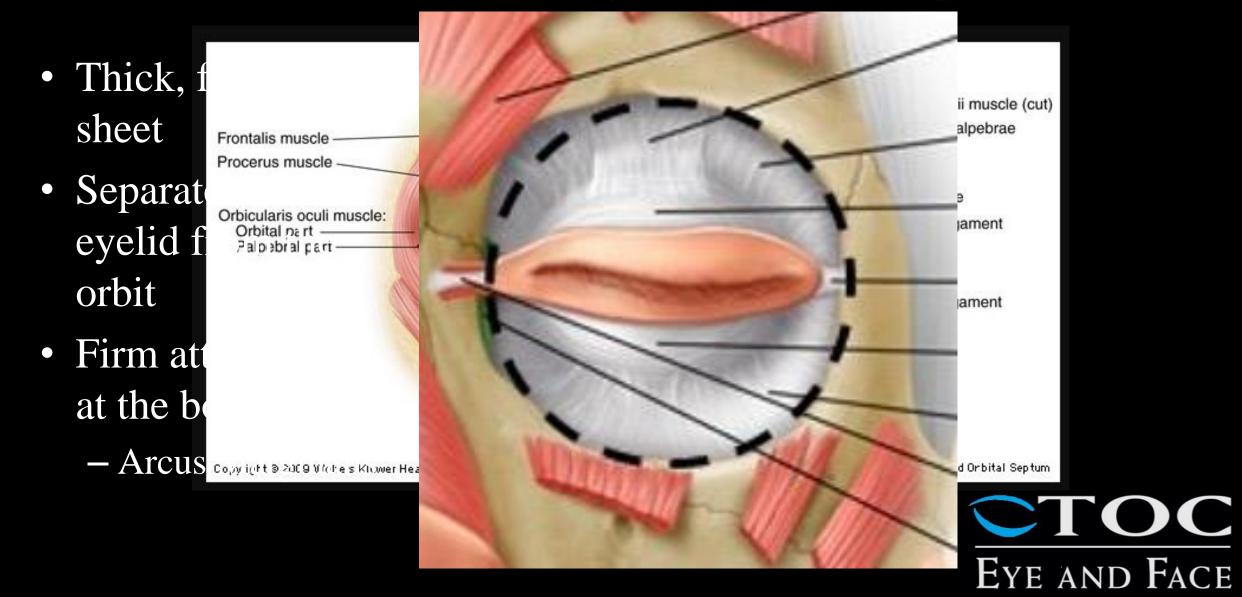
#### Anatomy – Lateral Corrugator

- Laterally, becomes more superficial
- Interdigitates with the frontalis muscle
- Botox can be injected more superficially →
   BUT also likely to weaken frontalis



# **EVE AND FACE**

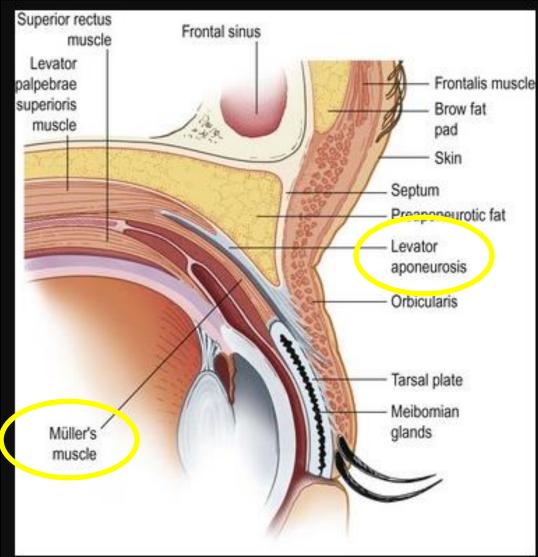
## Periorbital Anatomy – Orbital Septum



# Upper Eyelid Anatomy

# Levator

- Located
  beneath
  preaponeurotic
  fat behind the
  orbital septum
- Innervated by CN3



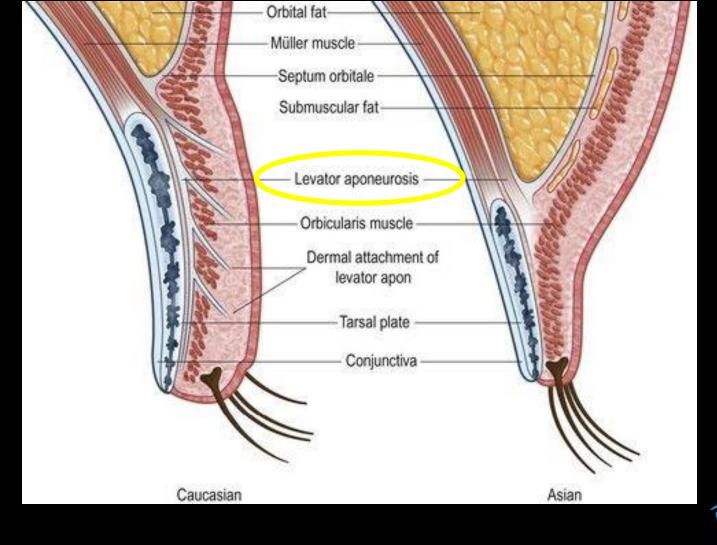
Müller's

- Located posteriorly adjacent to the conjunctiva
- Autonomically innervated

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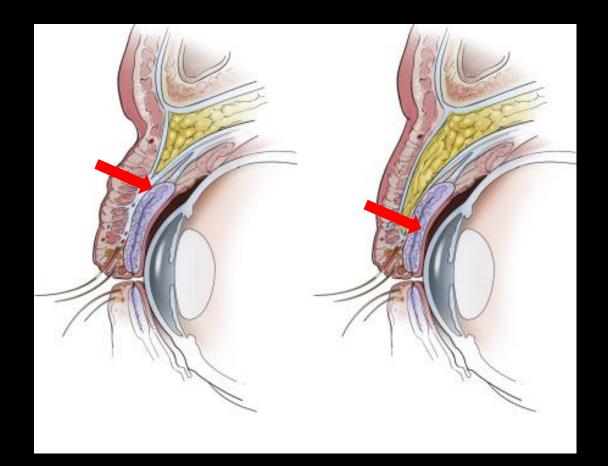
Nerad JA. Techniques in Ophthalmic Plastic Surgery: A Personal Tutorial. 1st ed. Philadelphia: Elsevier Health Sciences; 2009. Chapter 2, Clinical Anatomy, Fig 2.21, p.41.

#### How does the eyelid crease form?



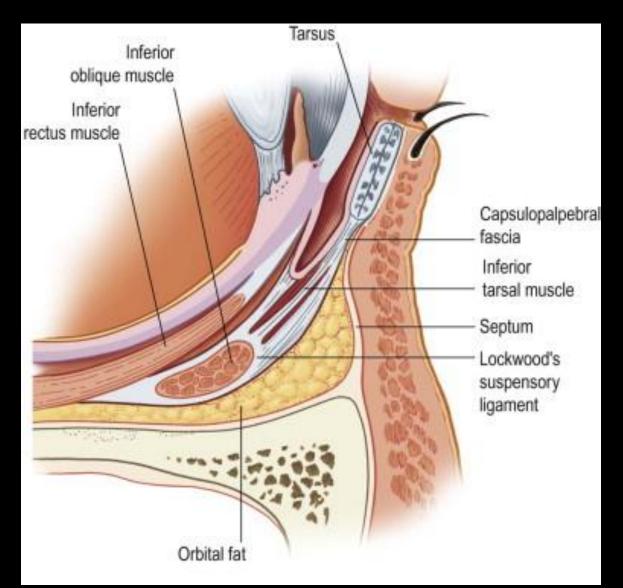
# **EVE AND FACE**

### Variations in Upper Eyelid Crease





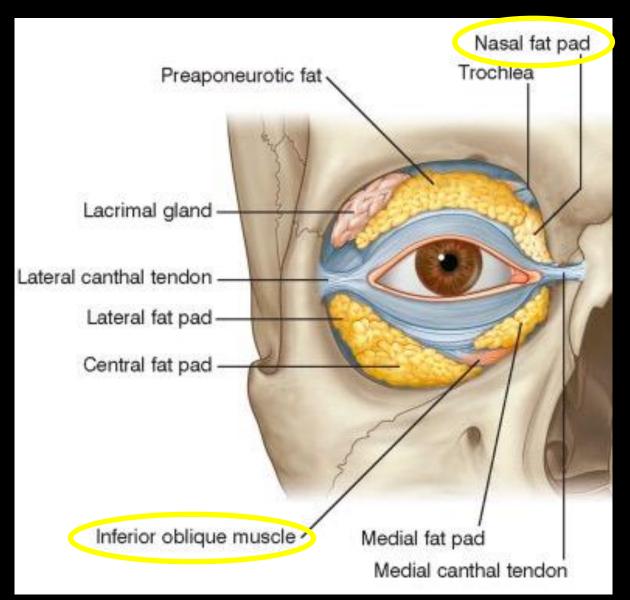
# Lower Eyelid Anatomy



Nerad JA. Techniques in Ophthalmic Plastic Surgery: A Personal Tutorial. 1st ed. Philadelphia: Elsevier Health Sciences; 2009. Chapter 2, Clinical Anatomy, Fig 2.28, p.43.

**TOC** Eye and Face

#### Orbital Fat Pads



#### **TOC** Eye and Face

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# **Pre-Operative Evaluation**

- Medical history (thyroid dysfunction, myasthenia gravis, etc)
- Medications (aspirin, other anticoagulants/antiplatelet agents)
- Prior eye problems (\*dry eye\*)
  - Burning
  - Tearing
  - Foreign body sensation
- Prior eye surgery (ie LASIK may be predisposed to dry eye)

 $\mathbf{OC}$ 

Eye and Face

• Prior eyelid surgery

## Pre-Operative Dry Eye Screening





**EVE AND FACE** 



# Test Vision



Card is held in good light 14 inches from eye. Record vision for each eye separately with and without glasses. Presbyopic patients should read thru bifocal segment. Check myopes with glasses only.



# **EVE AND FACE**

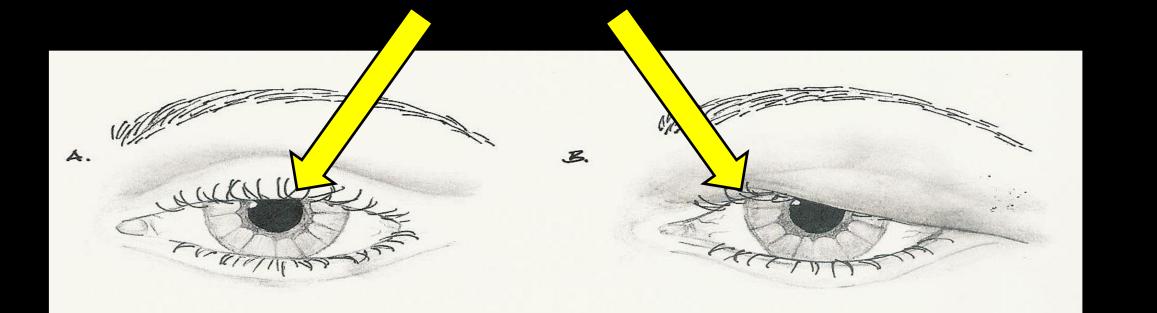
#### The Triple Threat

Dermatochalasis = extra skin Ptosis = droopy muscle Brow Ptosis = eyebrow droop



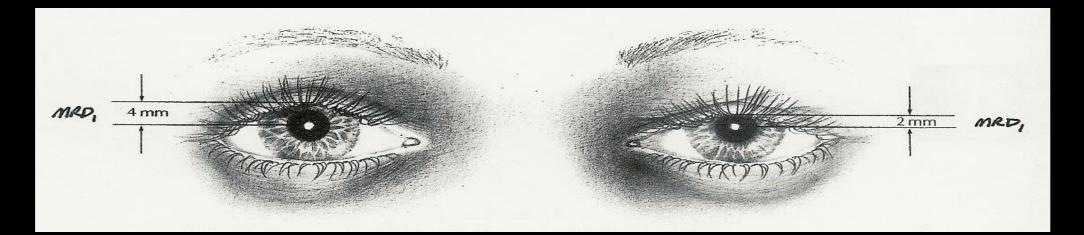
# "I have droopy eyelids"

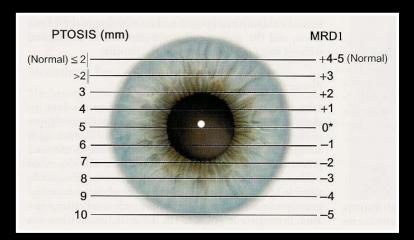
• Differentiate true ptosis from *pseudoptosis* due to dermatochalasis





# Margin Reflex Distance (MRD or MRD<sub>1</sub>)

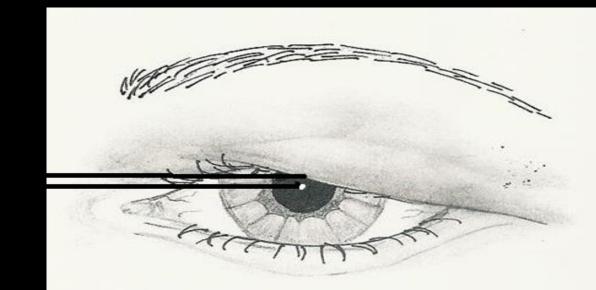




#### **TOC** Eye and Face

# Why "MRD1" is Important....INSURANCE!

#### Medicare and Private Insurance Carriers use MRD1 when determining approval for surgery



Eye and Face



### Photographs

Frontal

Oblique or <sup>3</sup>/<sub>4</sub> View



# "Awning Effect"











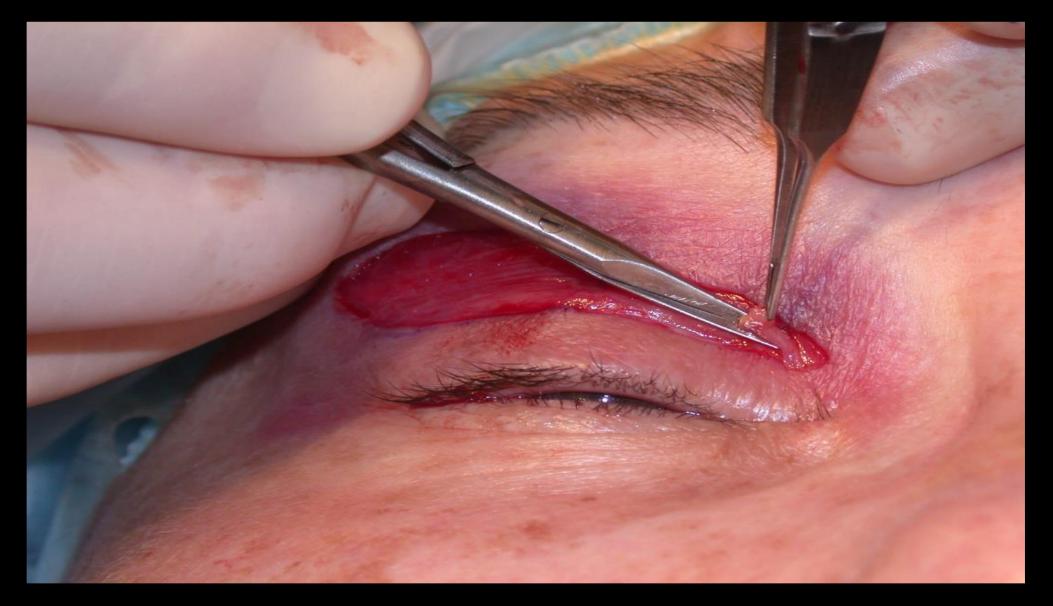


















# Post Operative Lagophthalmos - Management

- Lubrication!!!
  - Artificial tears
  - Gel drops
  - Ointment
- Downward massage of the eyelid
- Consider release of upper eyelid retractors if ptosis performed
- Consider skin graft if true deficiency of anterior lamella



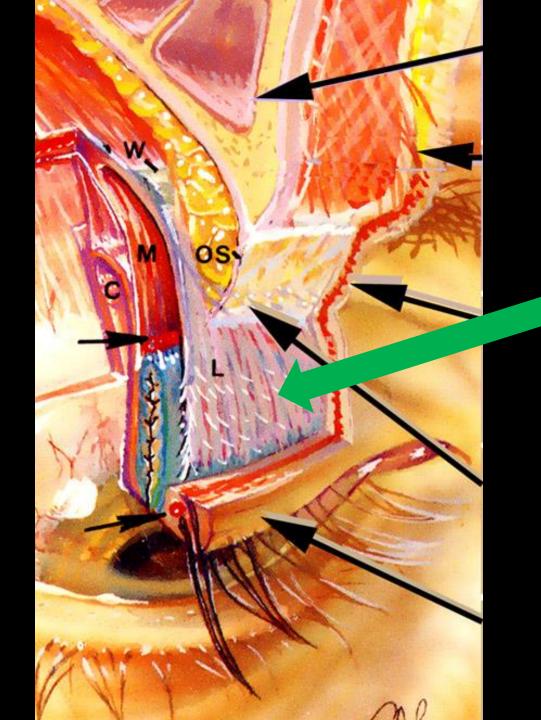
# Unrecognized Ptosis



Anterior versus Posterior Approach to Ptosis Repair

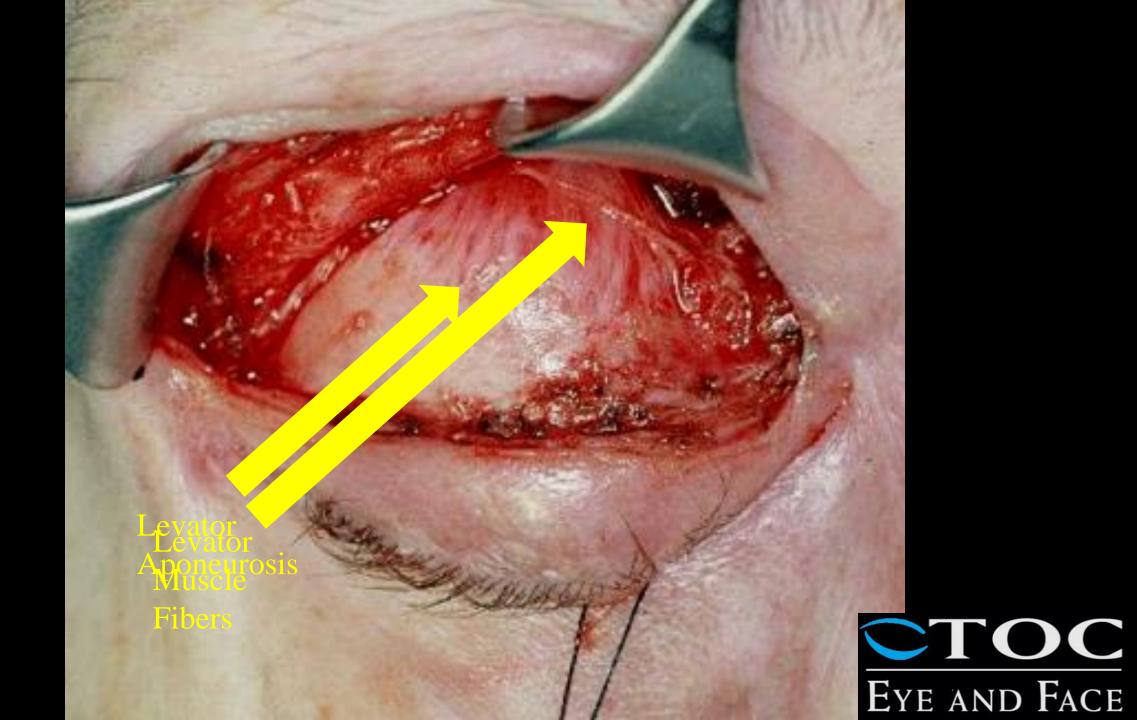


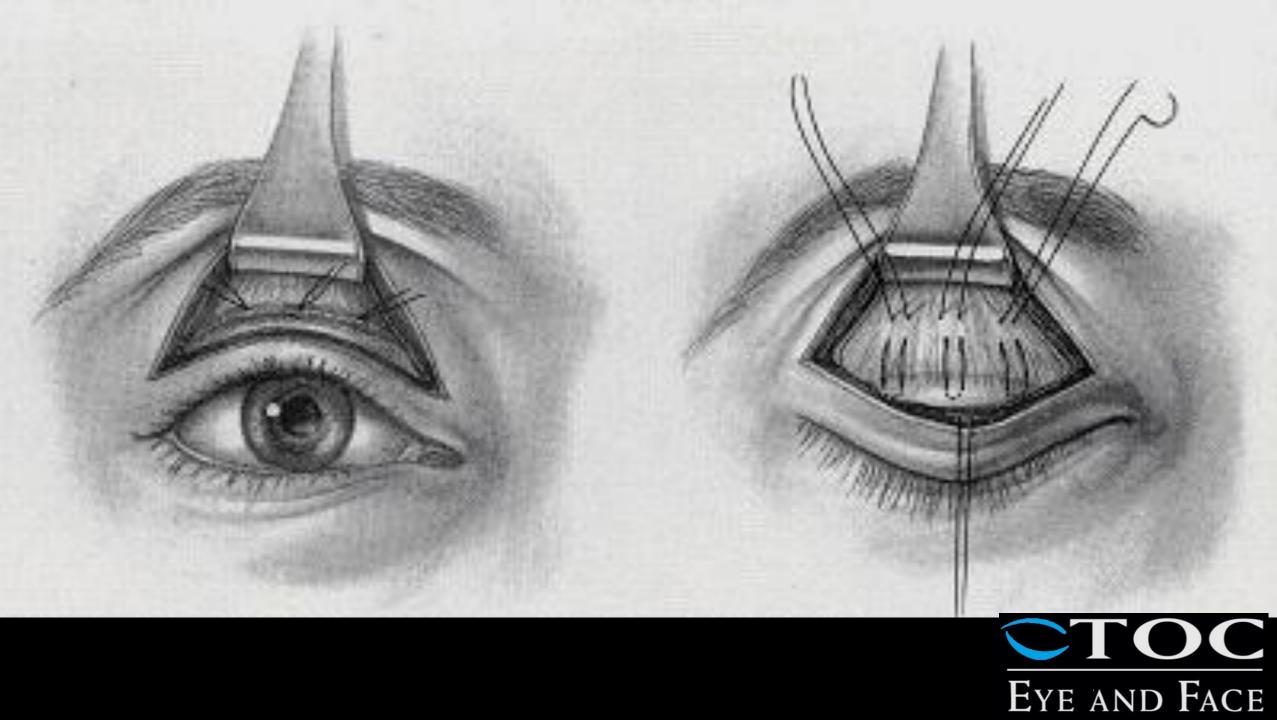
# Anterior Approach



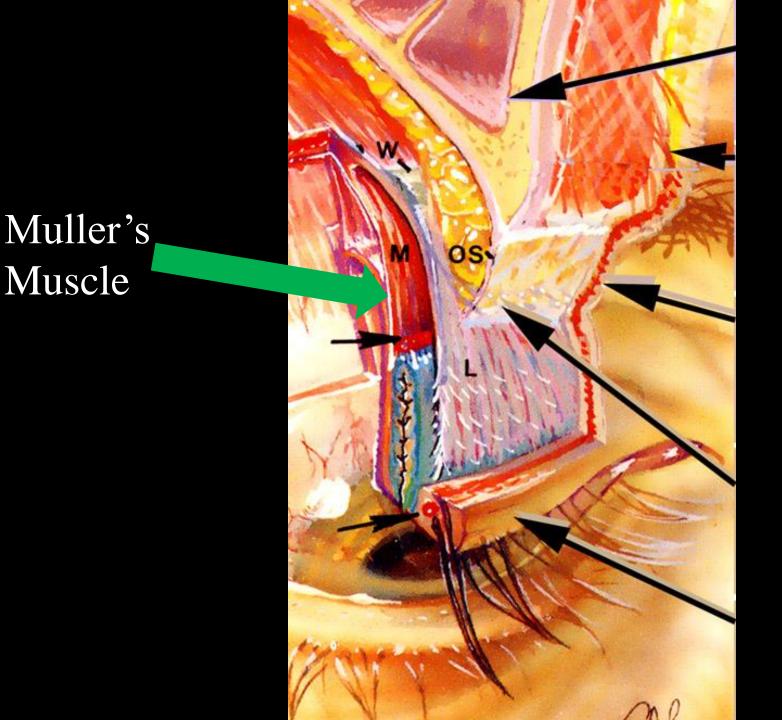
Levator Aponeurosis

### **CTOC** Eye and Face









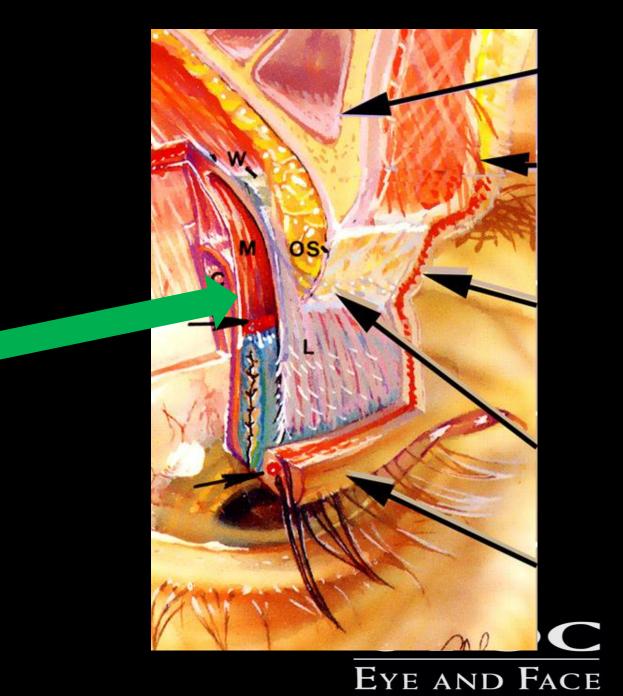
Muscle

# Posterior Approach

### CTOC Eye and Face

# $\underline{\alpha}$ adrenergic agonist

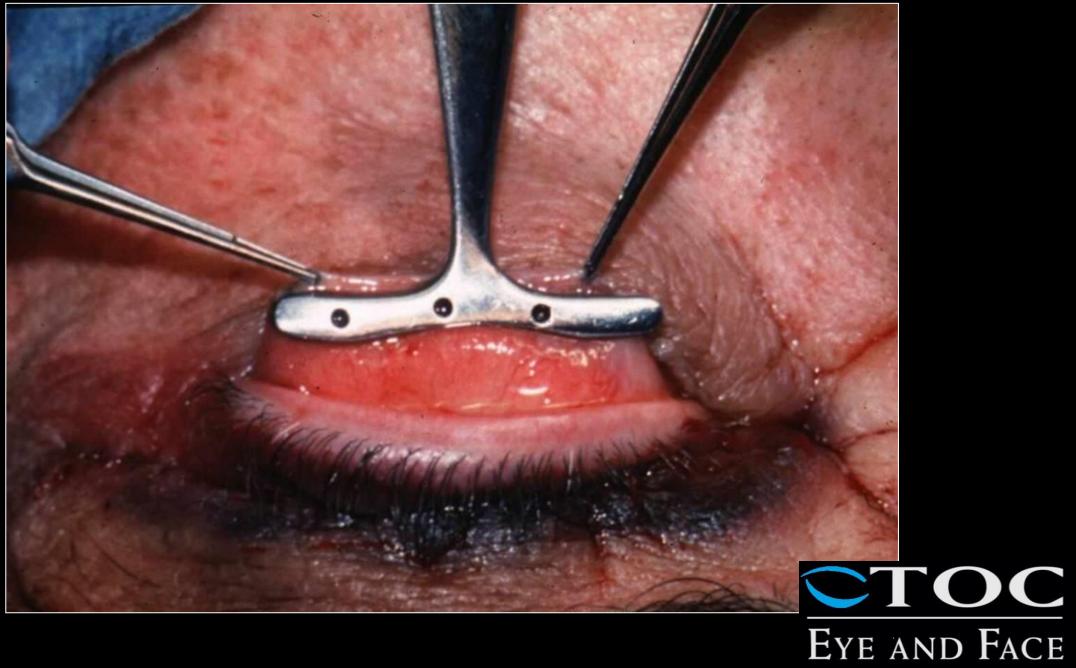


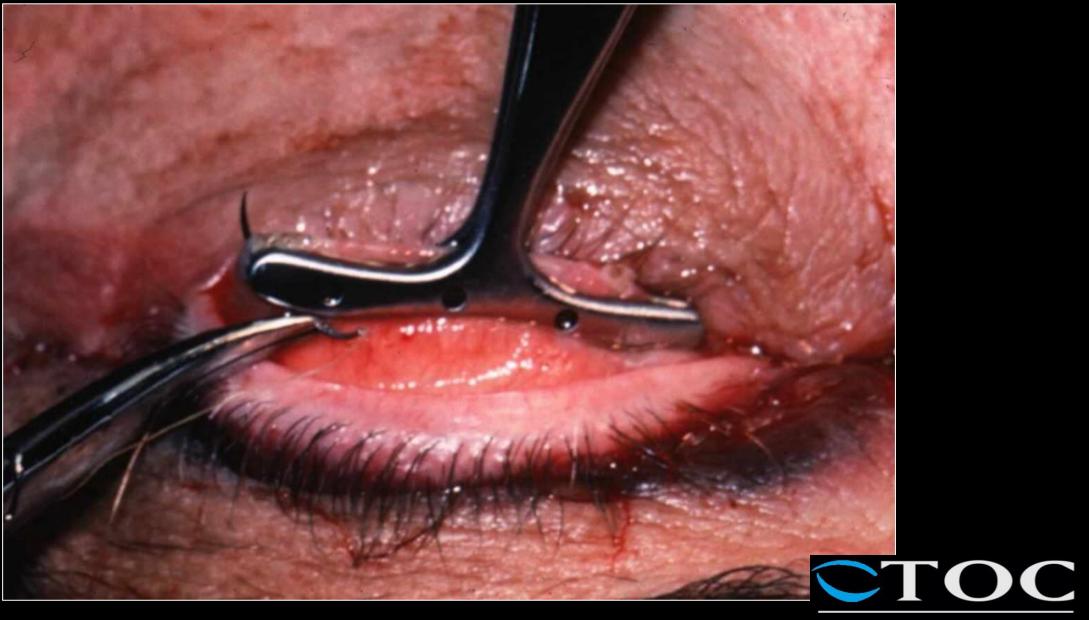


## Putterman Ptosis Clamp

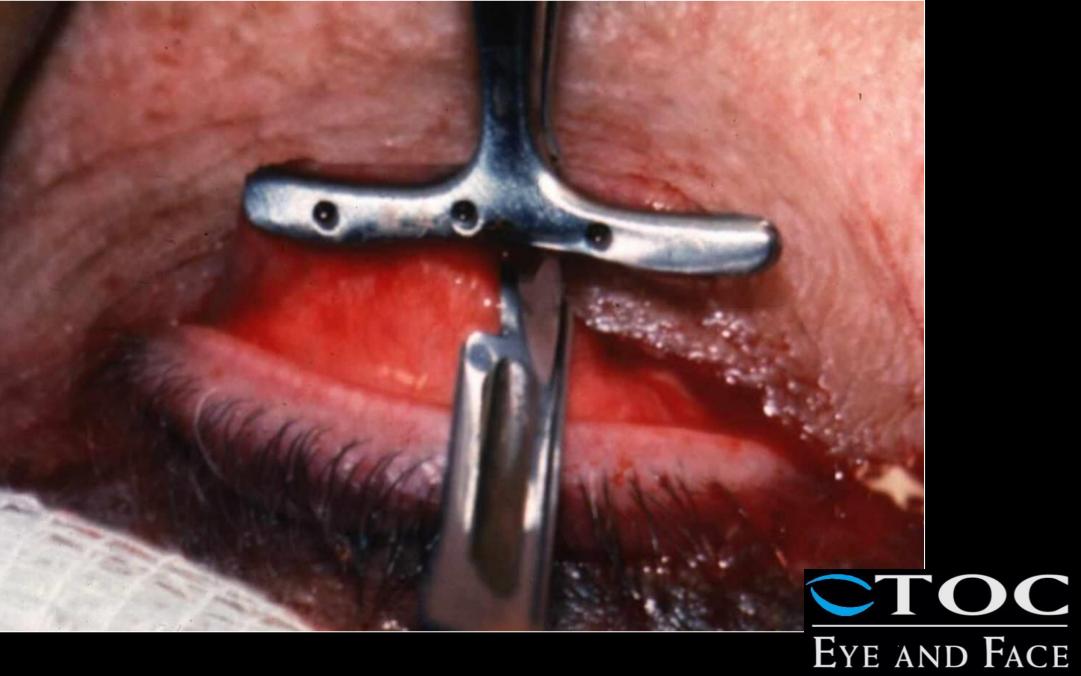
CE

ARTITUT





Eye and Face



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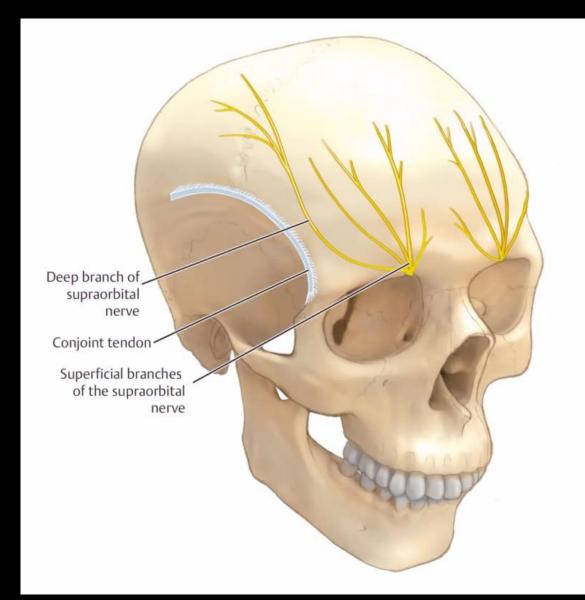


# "I have droopy eyelids"

**Brow Ptosis** 

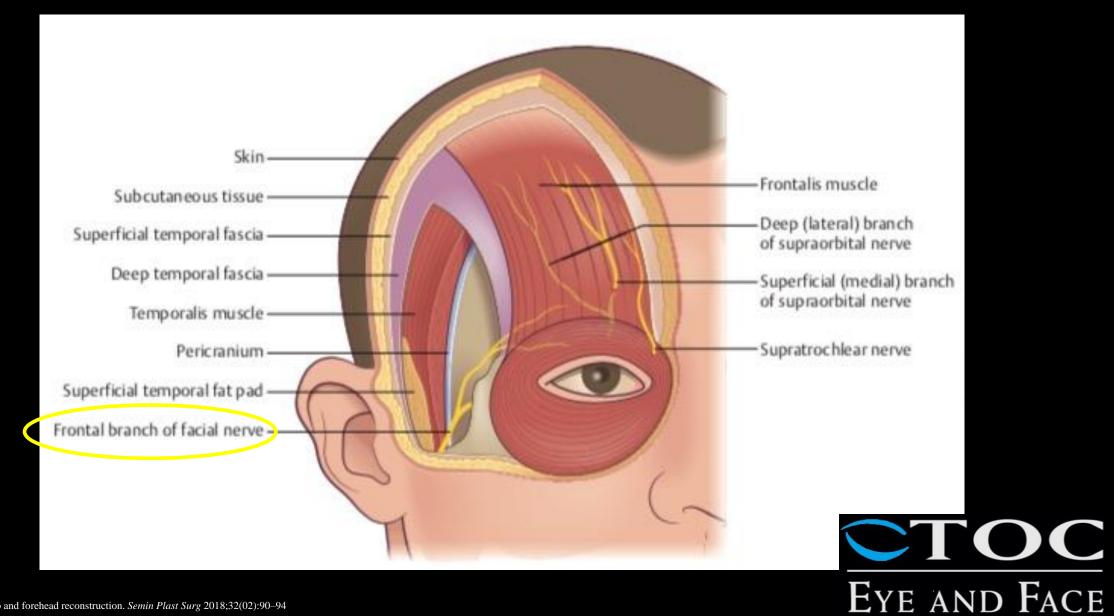


### Forehead Anatomy



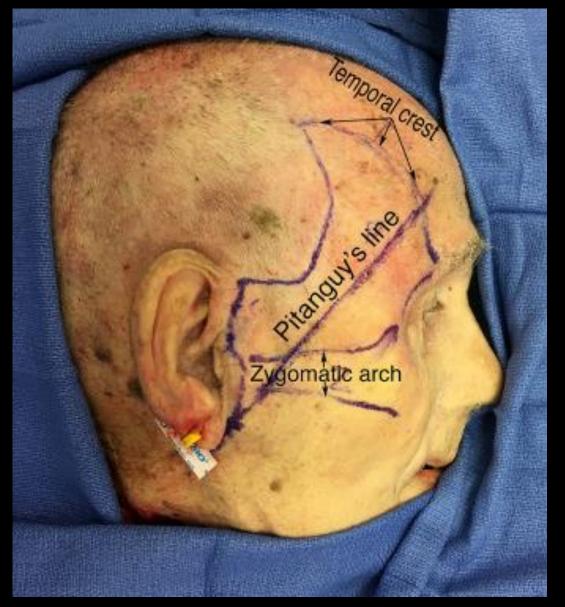
**EVE AND FACE** 

## Forehead Anatomy



### Sokoya M, Inman J, Ducic Y. Scalp and forehead reconstruction. Semin Plast Surg 2018;32(02):90-94

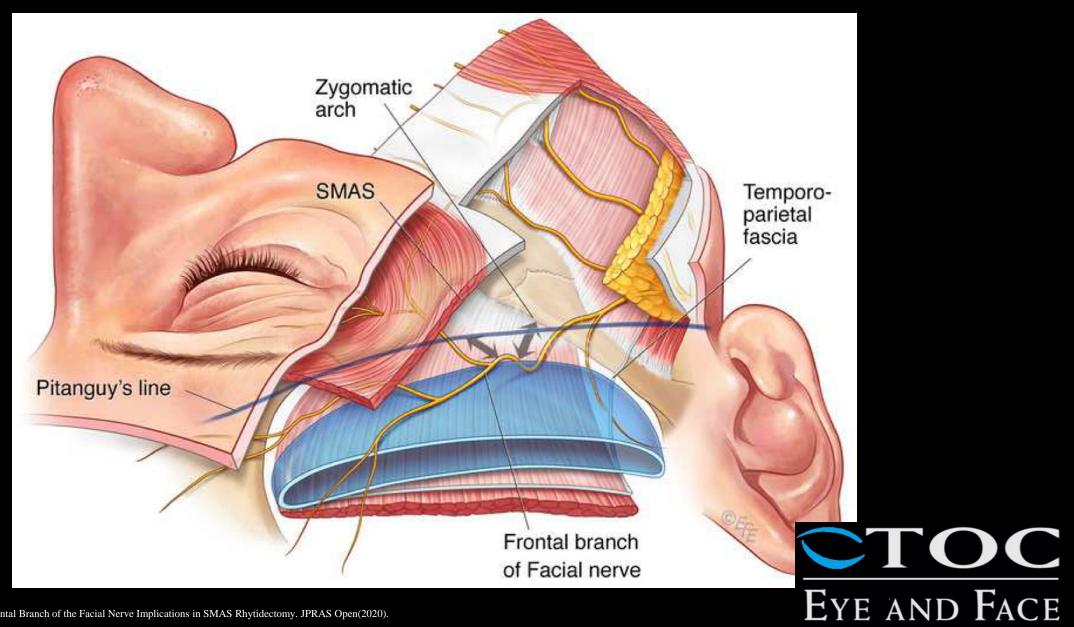
# Pitanguy's Line



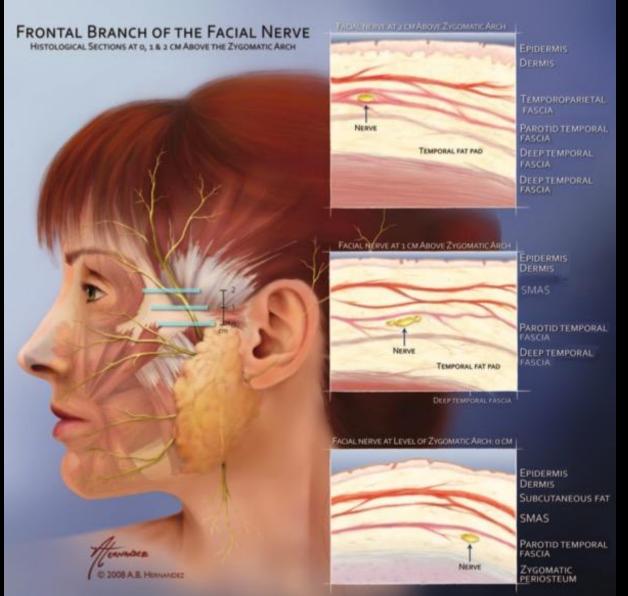
**CTOC** Eye and Face

Pankratz, J, et al. Depth Transitions of the Frontal Branch of the Facial Nerve Implications in SMAS Rhytidectomy. JPRAS Open(2020).

# Pitanguy's Line



## Temple Anatomy



Trussler, et al. The Frontal Branch of the Facial Nerve across the Zygomatic Arch: Anatomical Relevance of the High-SMAS Technique. Plast Reconstr Surg. 2010 Apr;125(4):1221-9.

**TOC** Eye and Face

### Central Dissection



**EVE AND FACE** 

### Full Midface Release



# **Options for Fixation**

- Endotine<sup>TM</sup>
- Lactosorb Screws<sup>TM</sup>
- Bone Tunnels





### **Bone Tunnel Fixation**



# Brow Lift Complications

- Etiology  $\rightarrow$  Cautery, Traction, Dissection
- Alopecia
- Sensory 6.2%
  - Dysesthesia
  - Neurogenic Itching
    - Consider: Elavil, Neurotin, Lyrica
- Motor 1.5%
  - Typically, frontal branch of the facial nerve
  - Consider post-operative steroid (oral vs injection)





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