

# SURGICAL MANAGEMENT OF BLEPHAROSPASM

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# Disclosure Information

- In the past 12 months, I have no relevant financial relationships with the manufacturer(s) of any commercial product(s) and/or provider(s) of commercial services discussed in this activity.
- I do not intend to discuss an unapproved/investigative use of a commercial product/device in my presentation.

# OVERVIEW

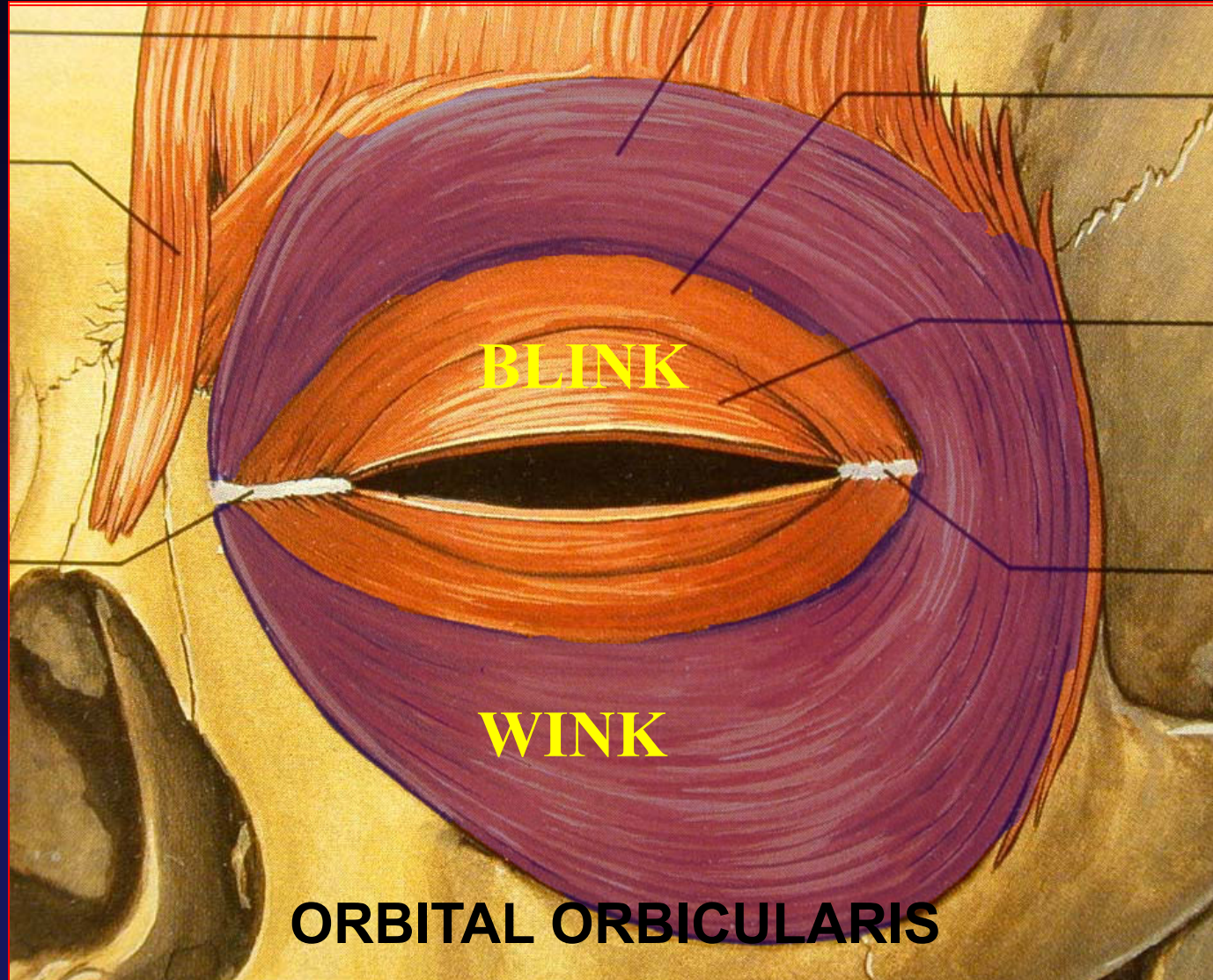
- Review of anatomy.
- Related clinical problems.
- Surgical options.
- Results and risks.

# BASIC EYELID ANATOMY

- Eyelid opening and closure depends on two sets of “antagonist” muscles.
- Eyelid CLOSERS:
  - Orbicularis oculi.
- Eyelid OPENERS:
  - Levator palpebralis superioris.



# ORBICULARIS

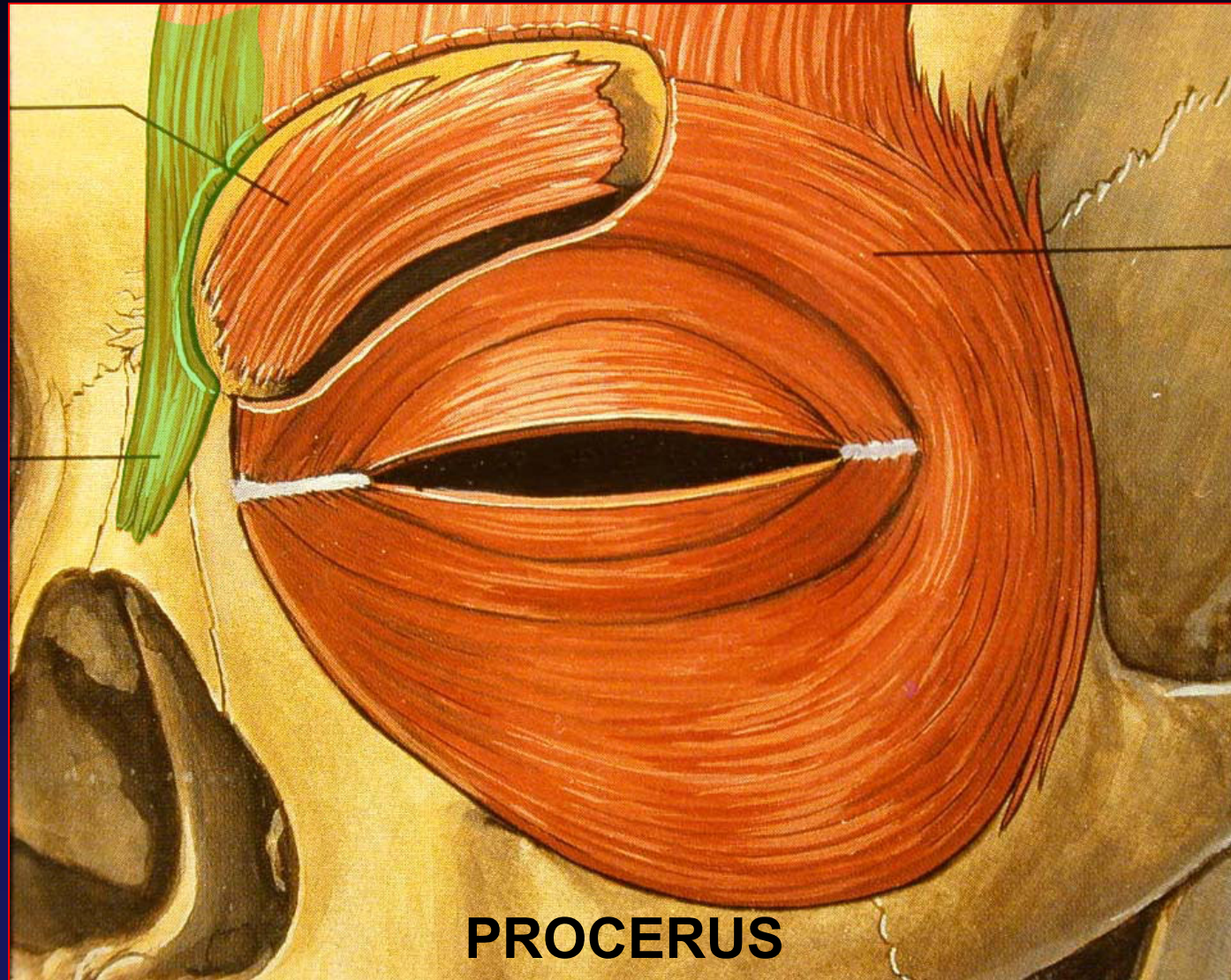








# SECONDARY “CLOSERS”

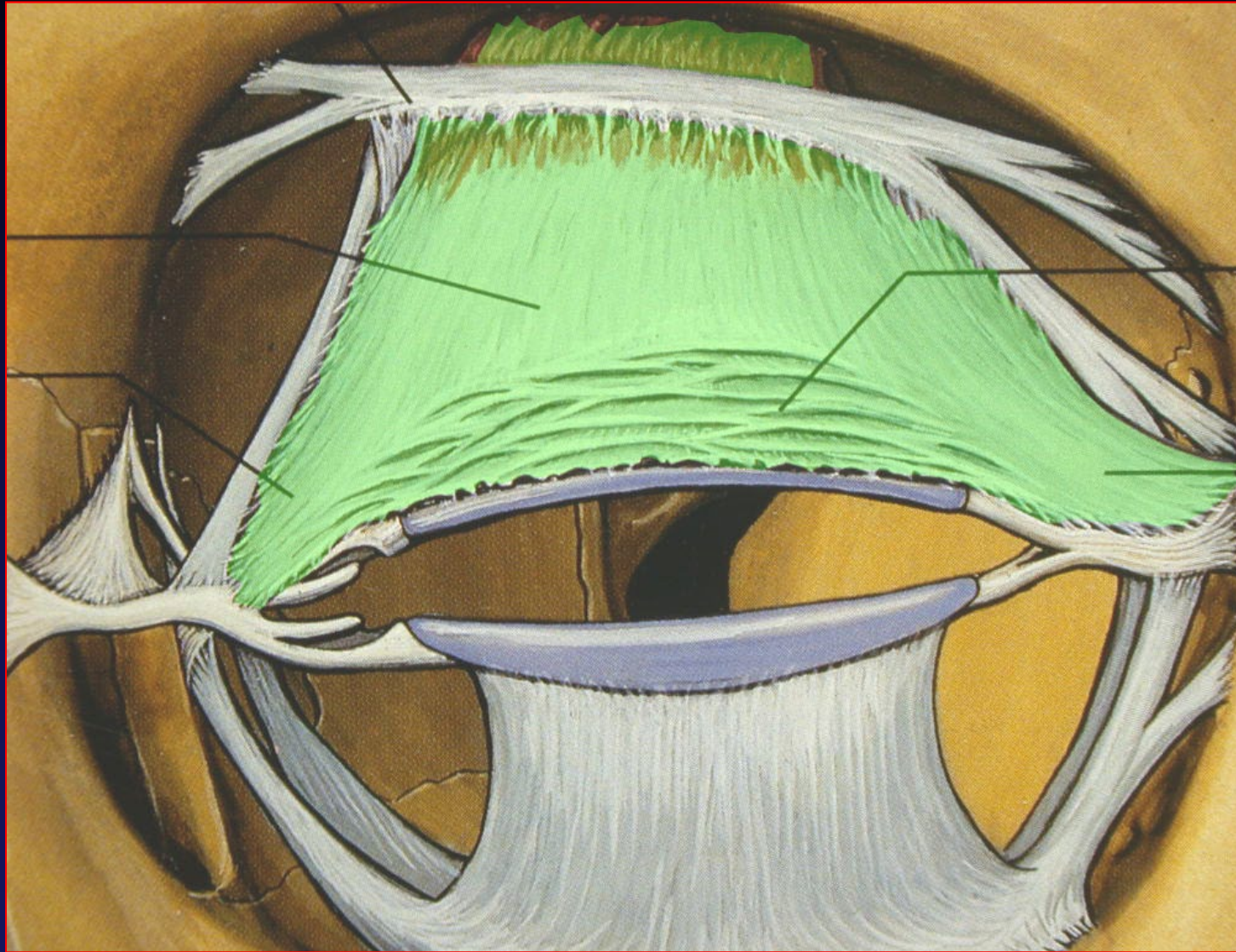






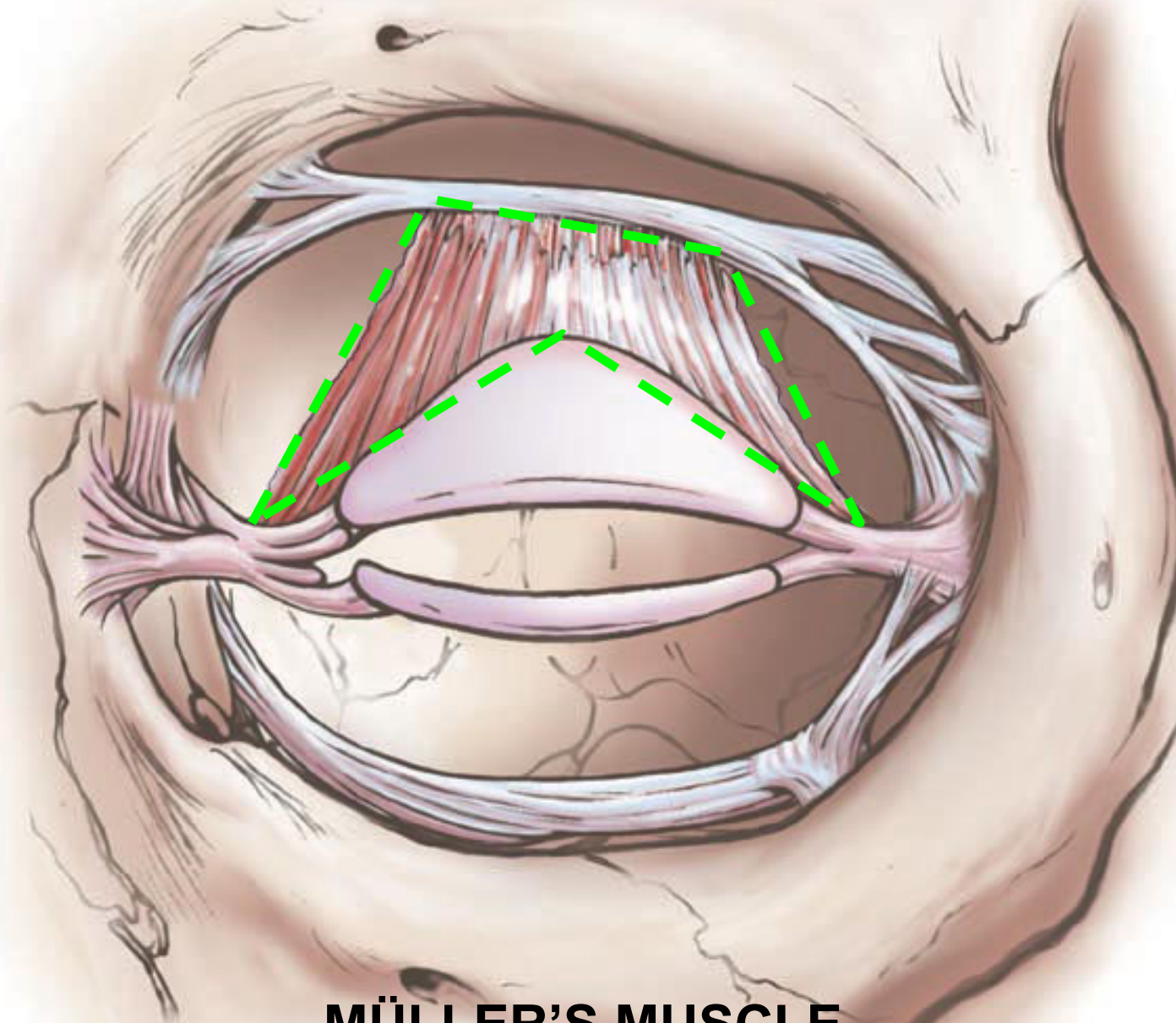


# LEVATOR









Tempo

Orbi  
or  
(palpebra

Orbicul  
ocul  
(orbital p

Zygoma  
bo

Levator labii  
superioris  
alaeque  
nasi muscle

Zygomati  
minor

rcilii

ebra

labii  
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nasi muscle

s muscle

ularis  
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al portion)

r labii  
oris m.

ygomaticus  
inor m.

Zygomatus  
major m.

ressor septi m

**MÜLLER'S MUSCLE**

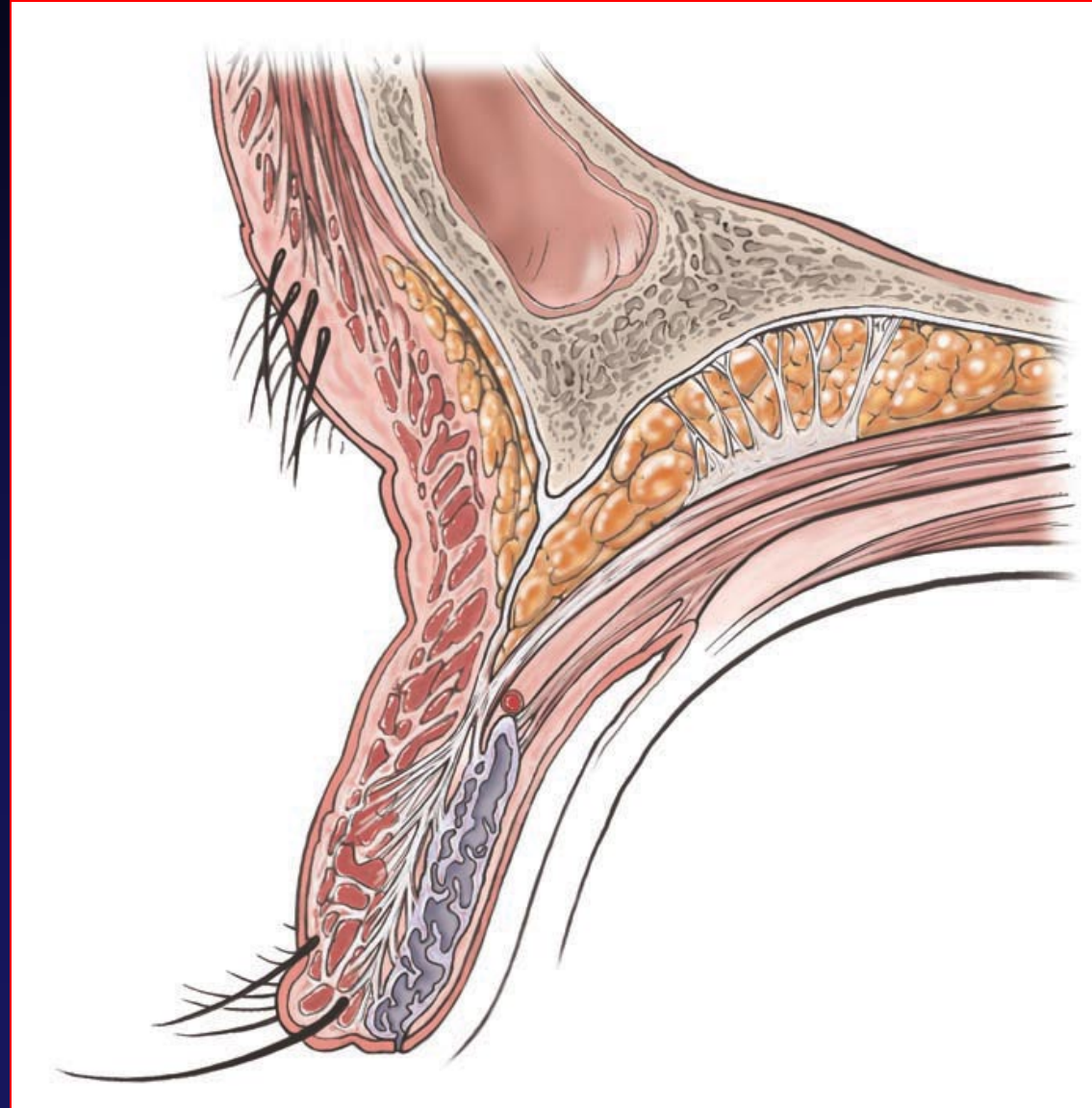


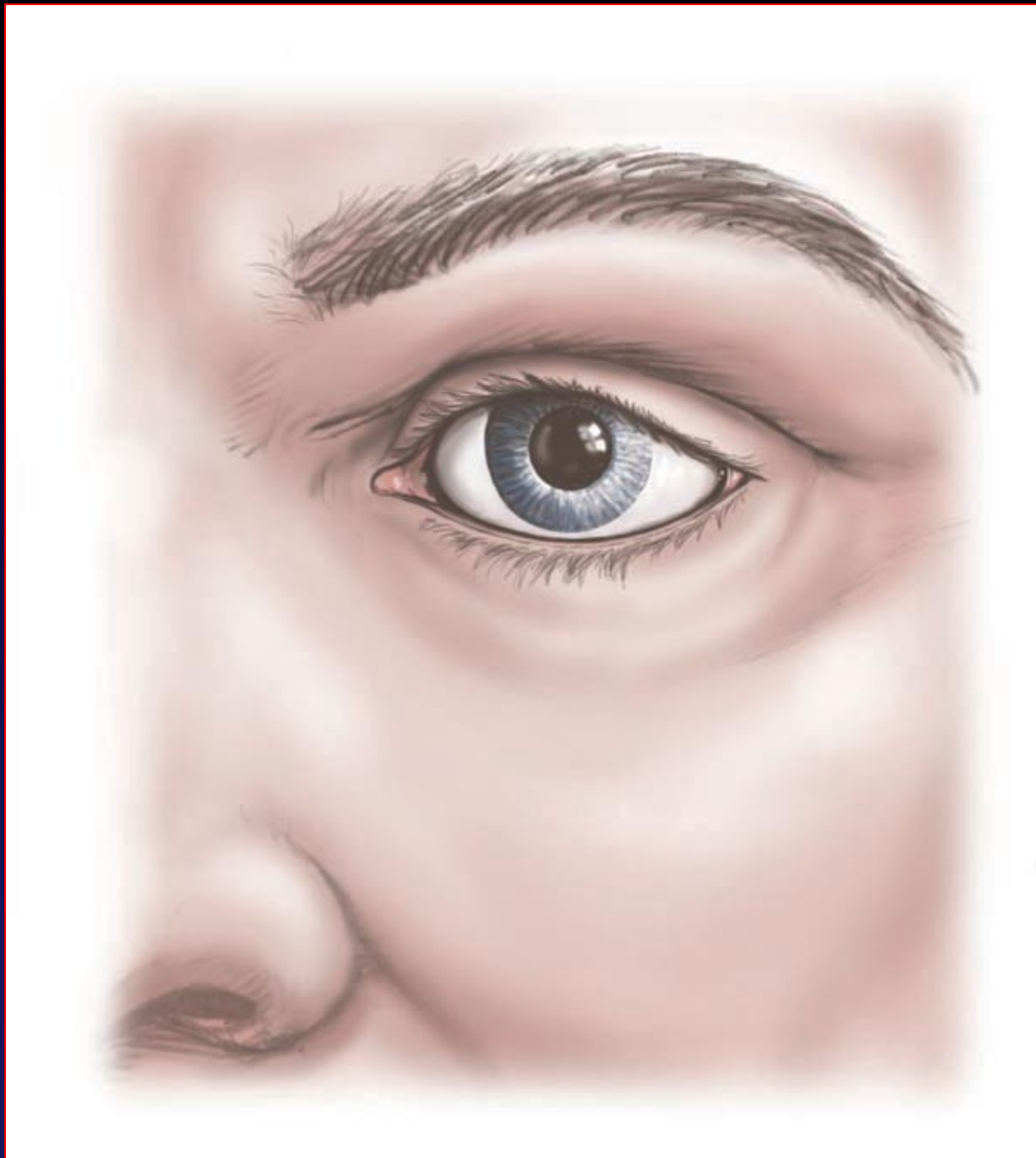




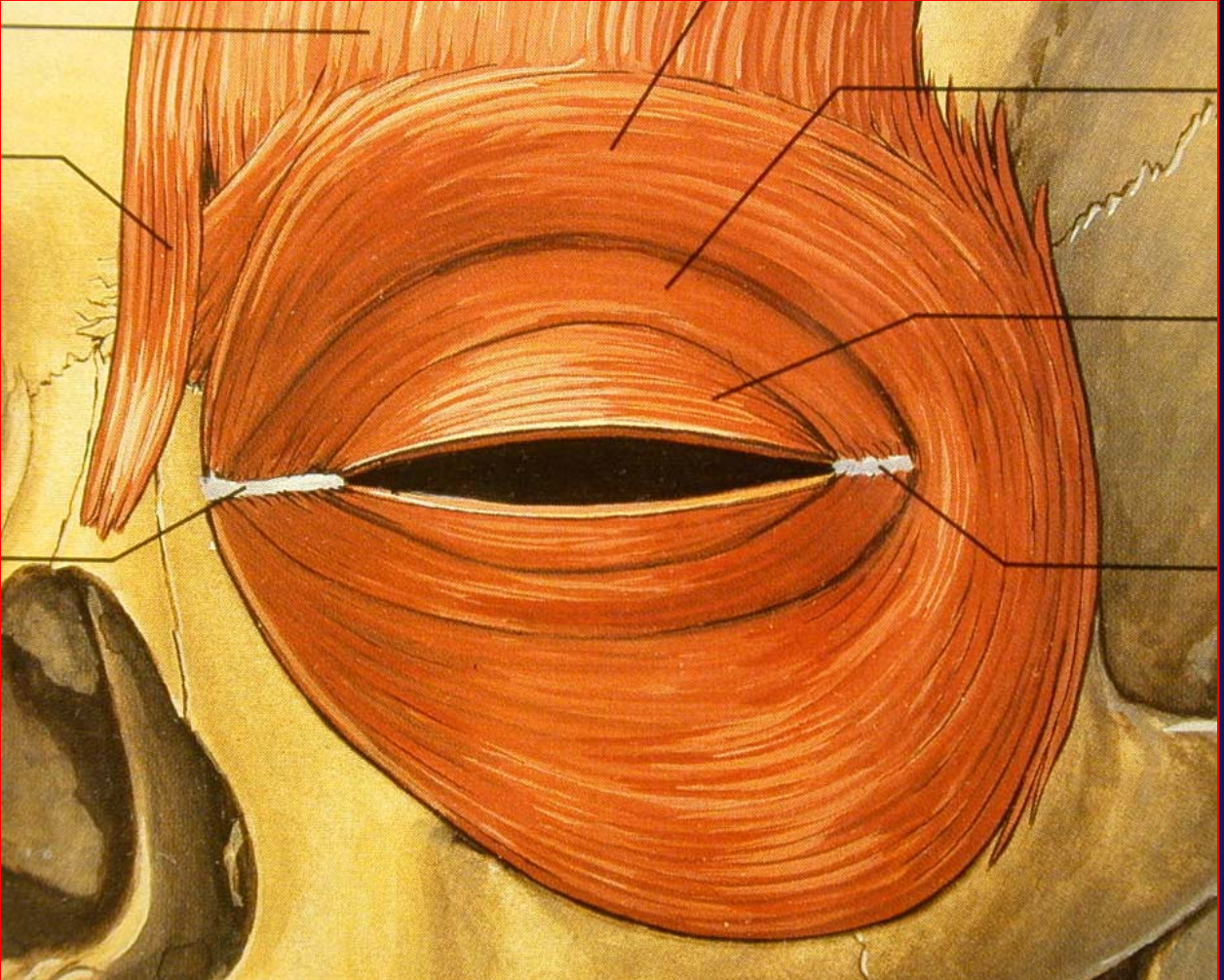
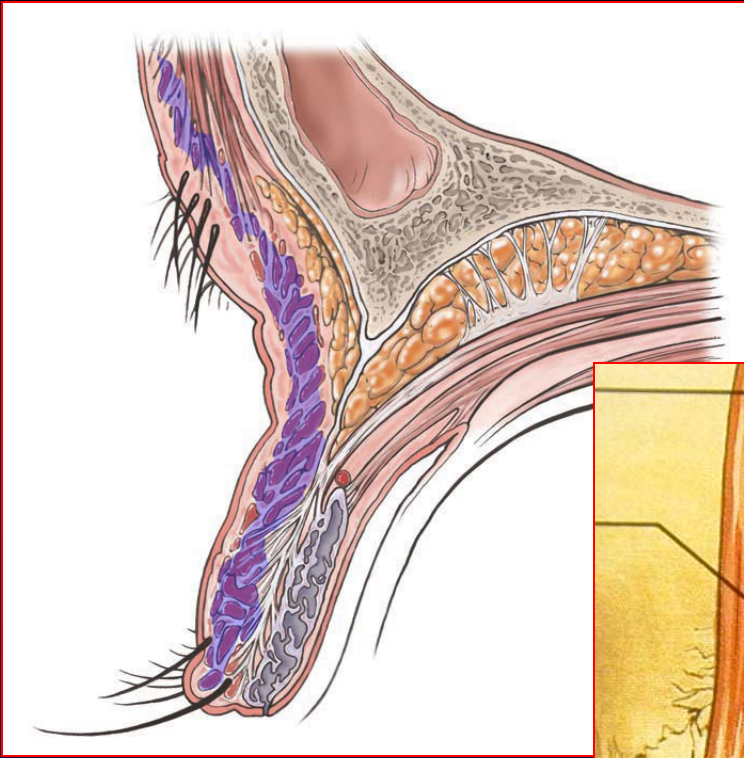


# ANATOMIC COMPLEXITY

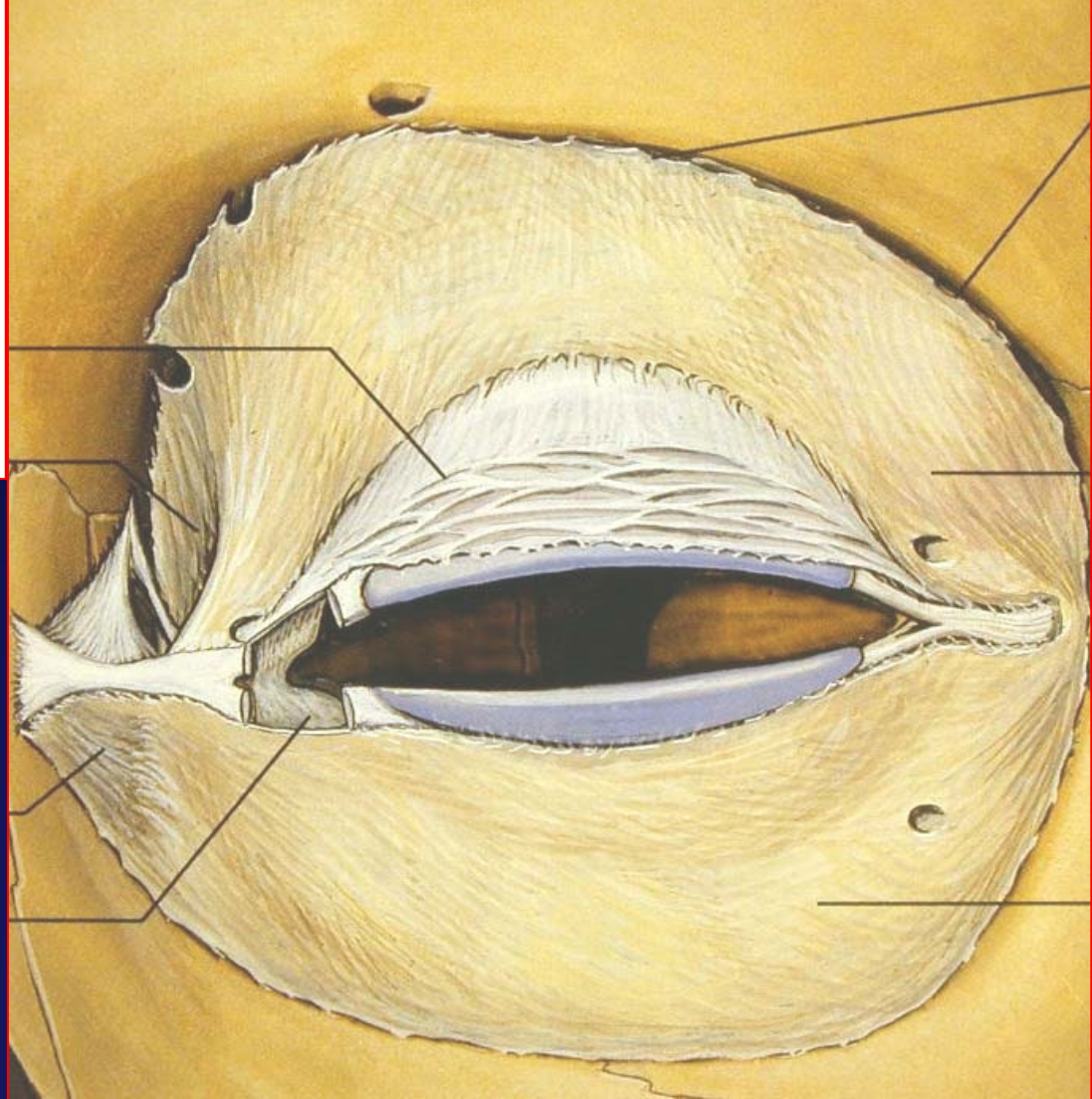
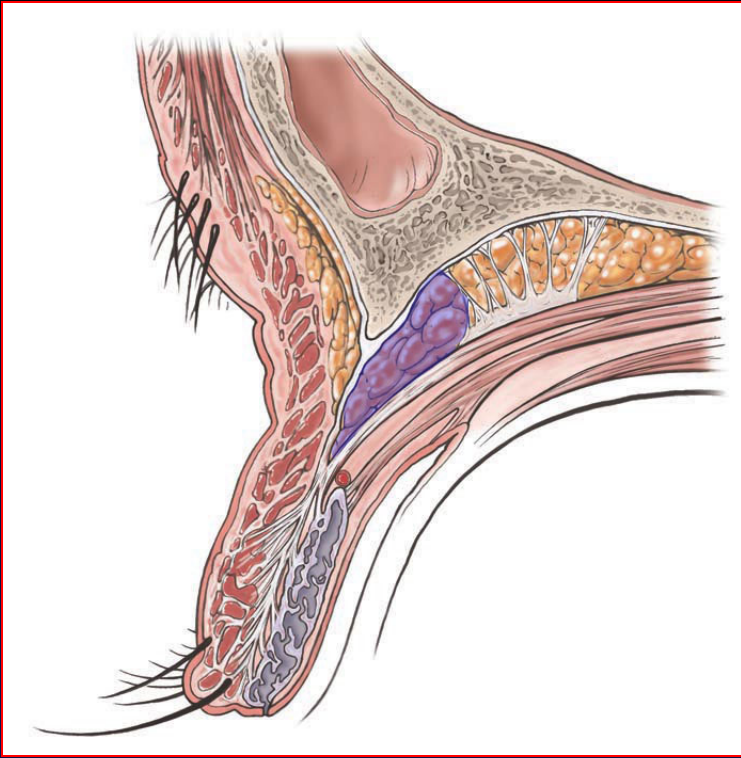




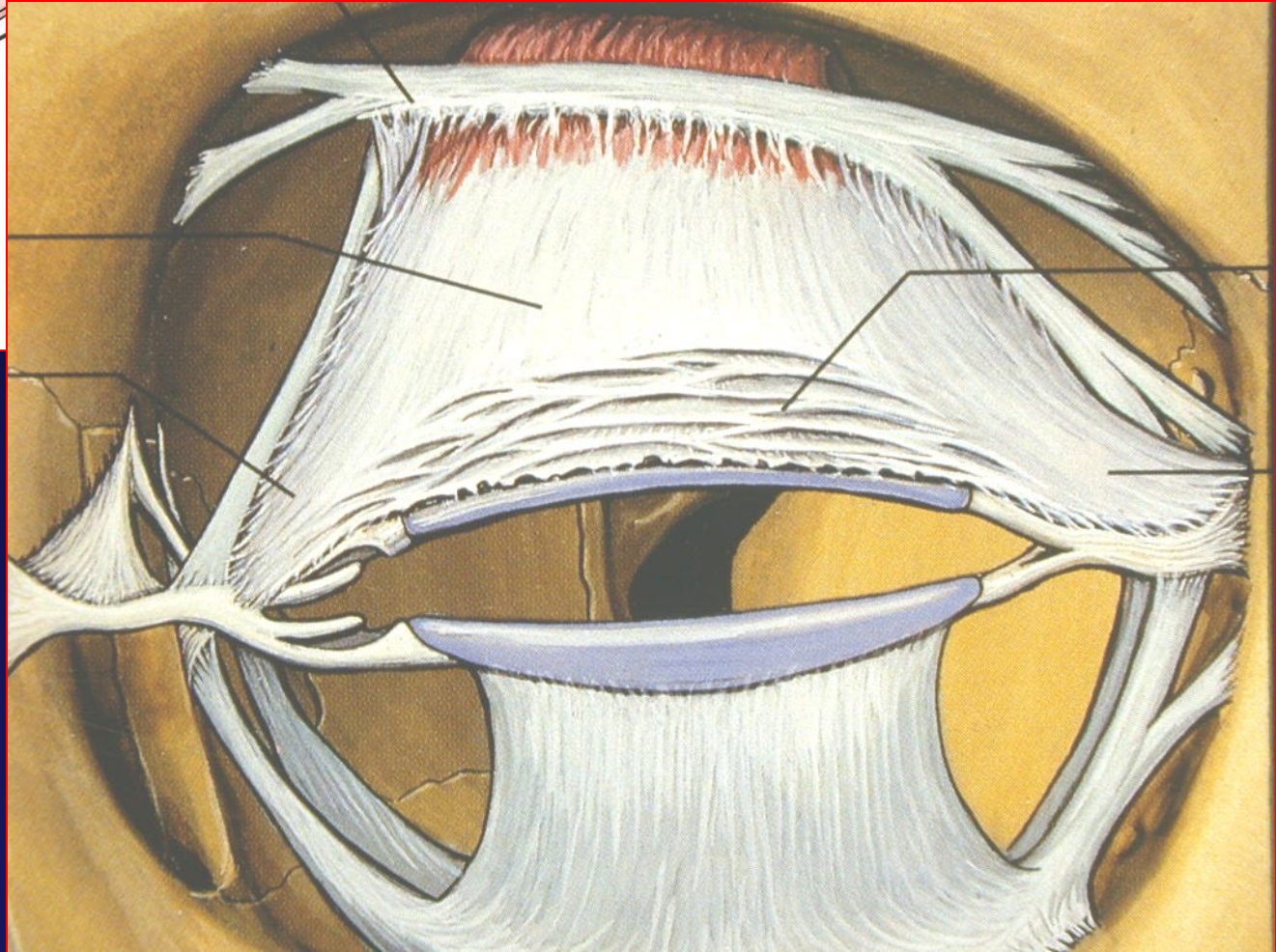
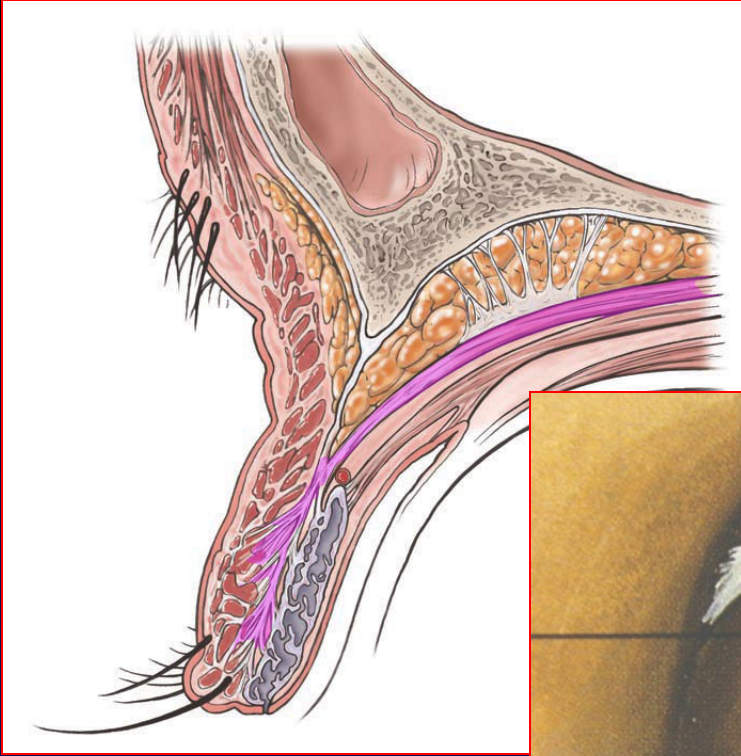




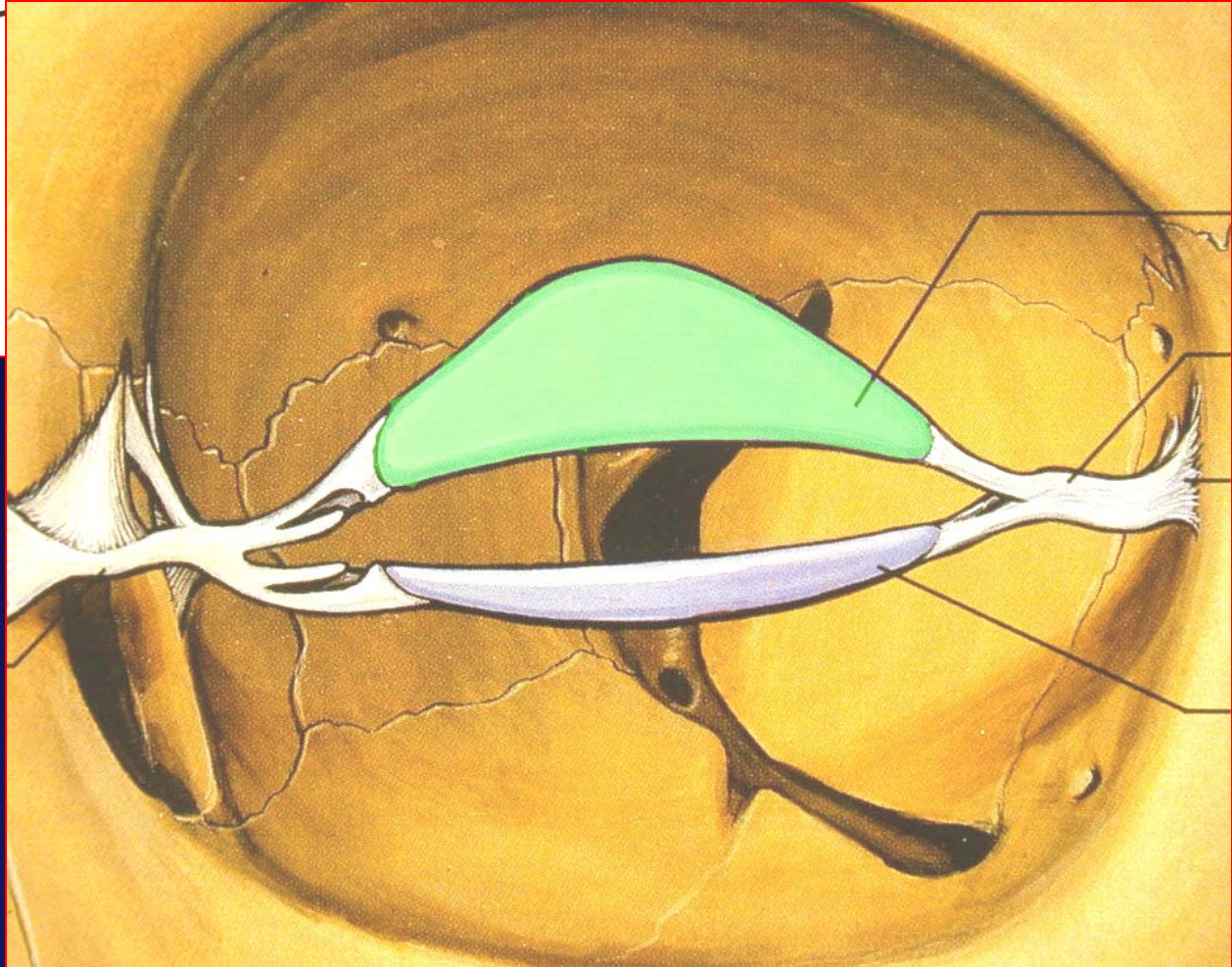
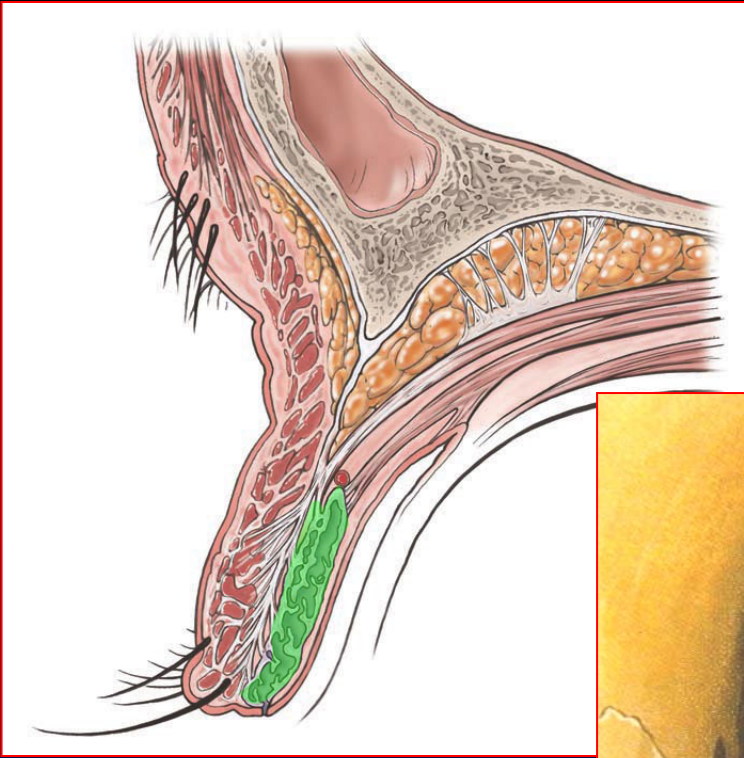










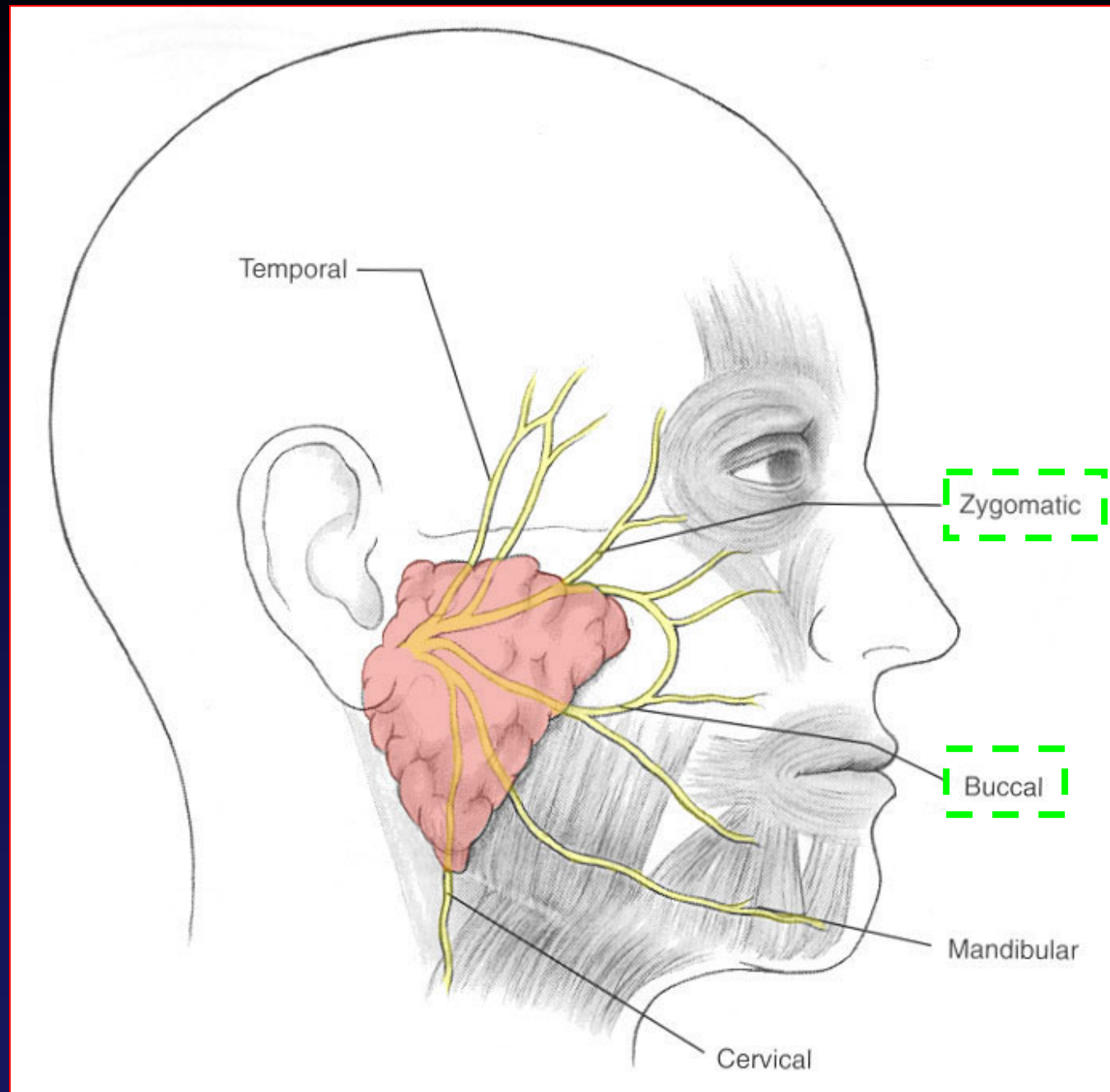




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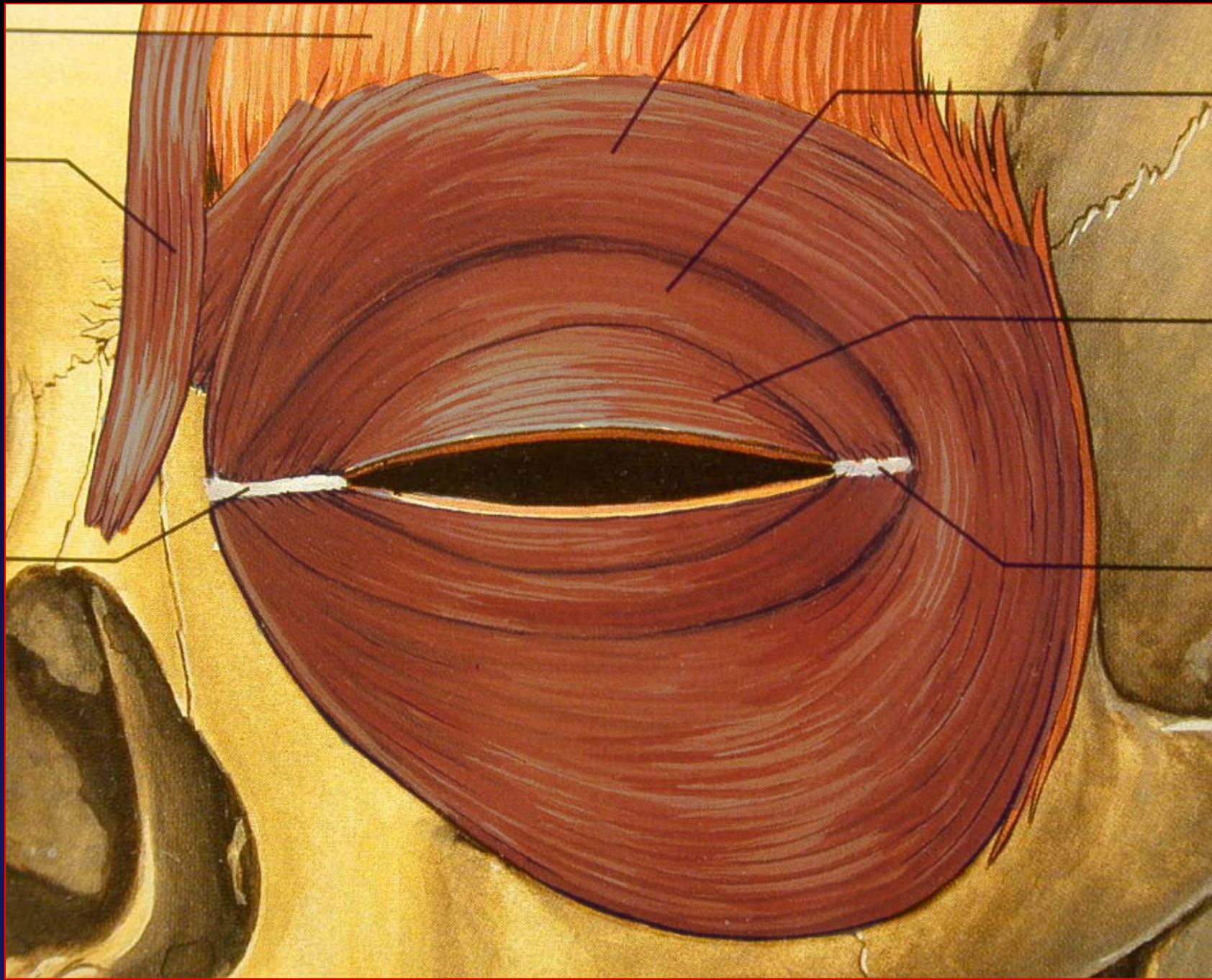




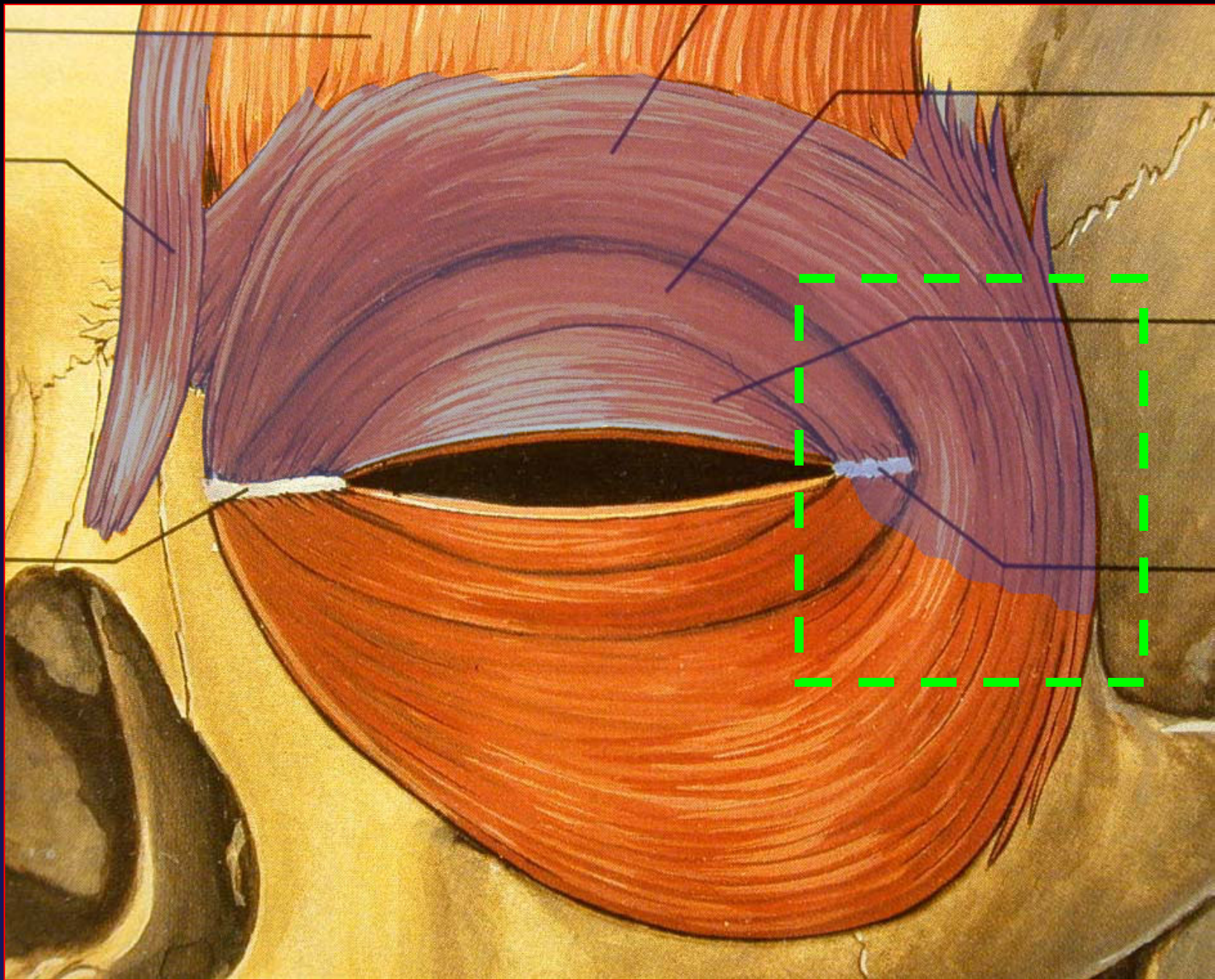
# MYECTOMY

- Removal of orbicularis through a skin incision.
- “Anderson procedure”: Extirpation of entire orbicularis, corrugator, procerus.
- “Limited myectomy”: Extirpation of portion of orbicularis.

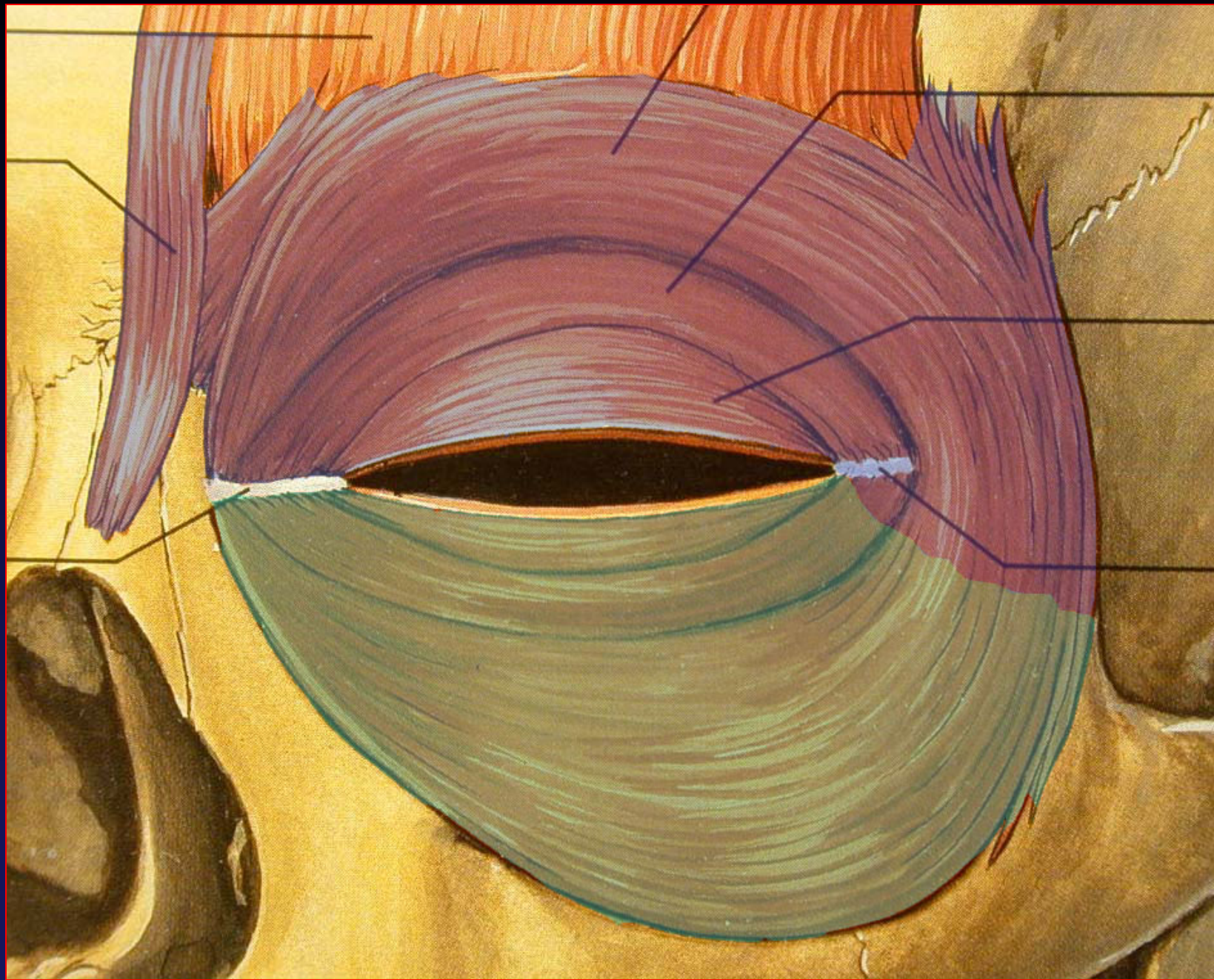






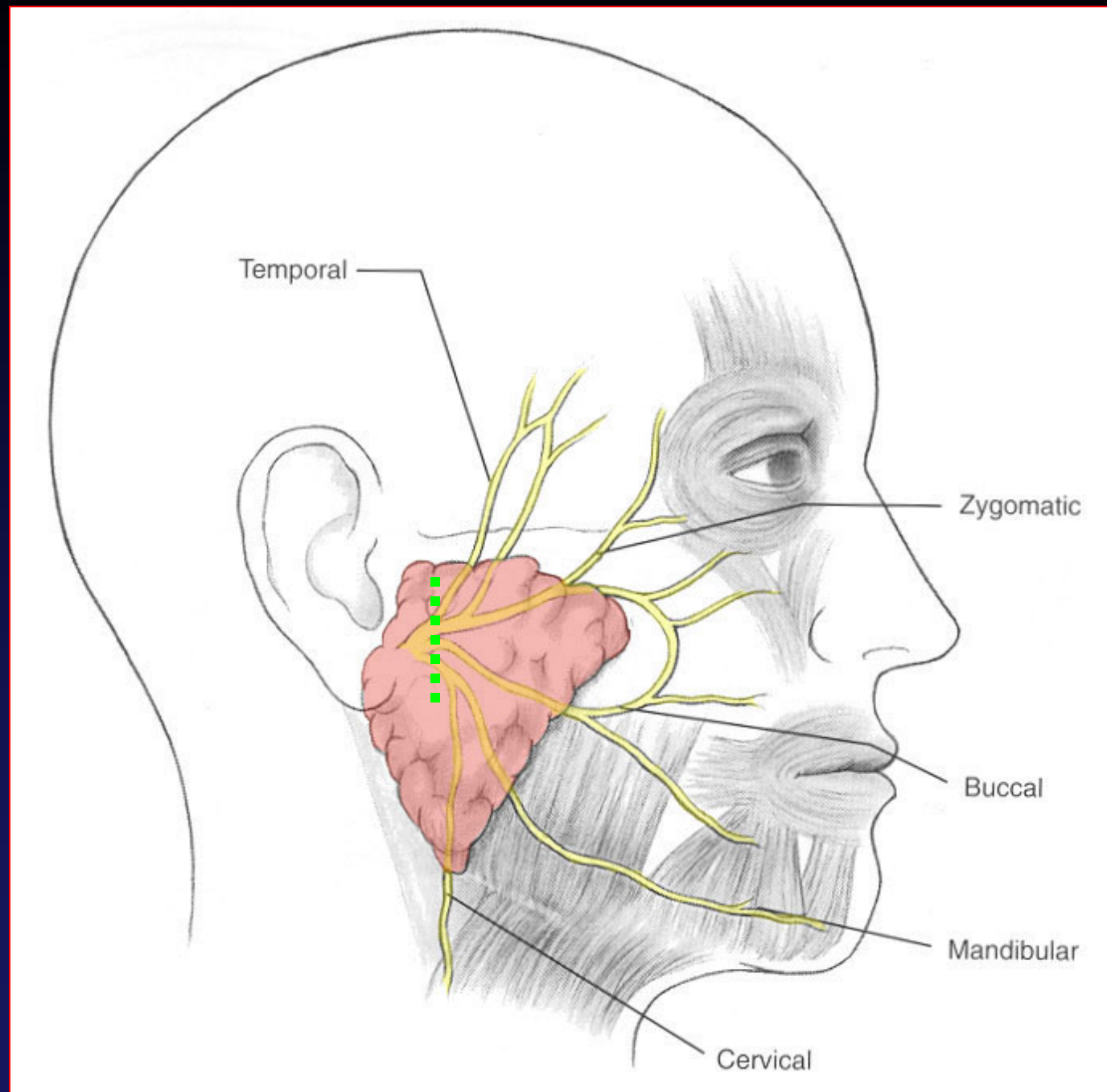




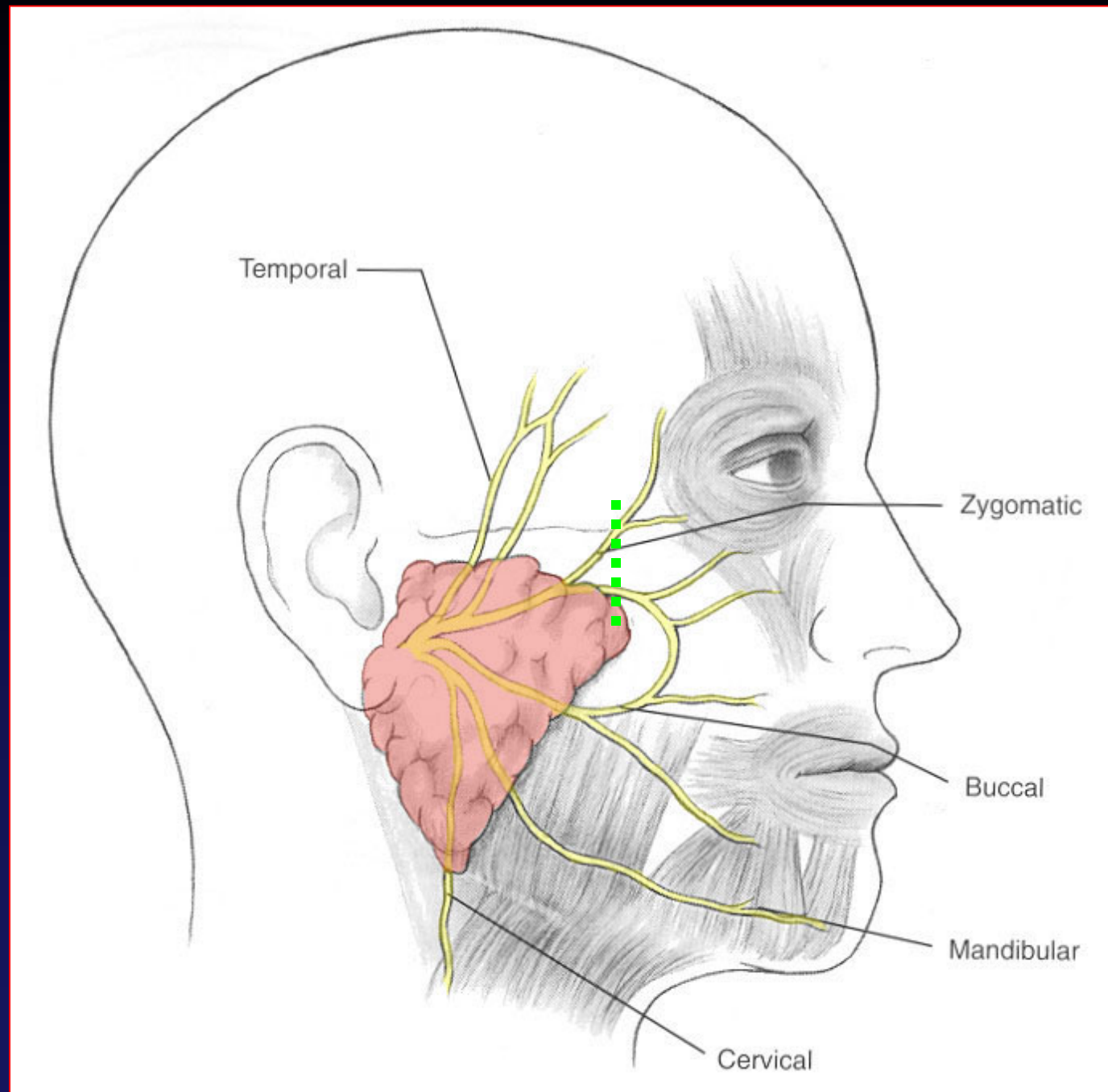


# FACIAL NERVE SURGERY

- Full neurectomy.
  - Facial nerve is cut and avulsed at its main trunk.
  - Results in hemifacial (half-face) paralysis.
- Limited neurectomy
  - Botulinum toxin is a variant: “chemo-denervation”.
  - Concentrated on zygomatic and buccal branches.



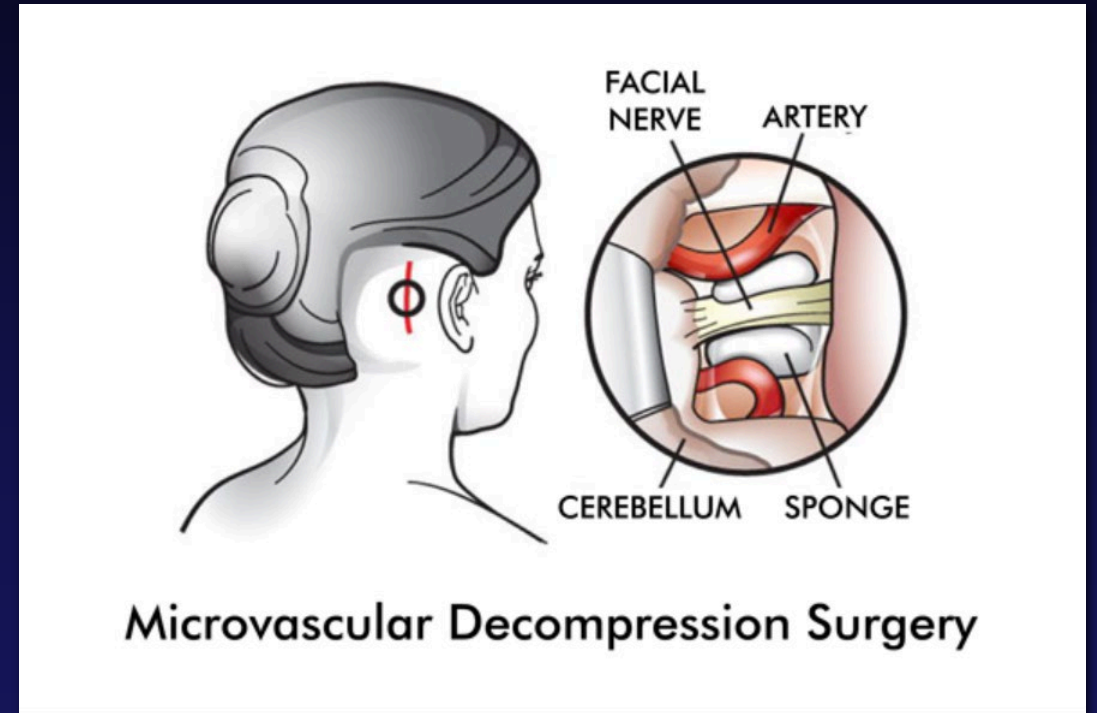






# SURGERY FOR HEMIFACIAL SPASM

- Microvascular decompression (MVD).
  - Also called Janetta procedure.
  - General anesthesia.
  - Reposition artery off nerve and place cushion between them.
  - 85% good long term outcome.
  - Small recurrence rate, 2% per year.



[Nashvillehemifacialspasm.com](http://Nashvillehemifacialspasm.com)

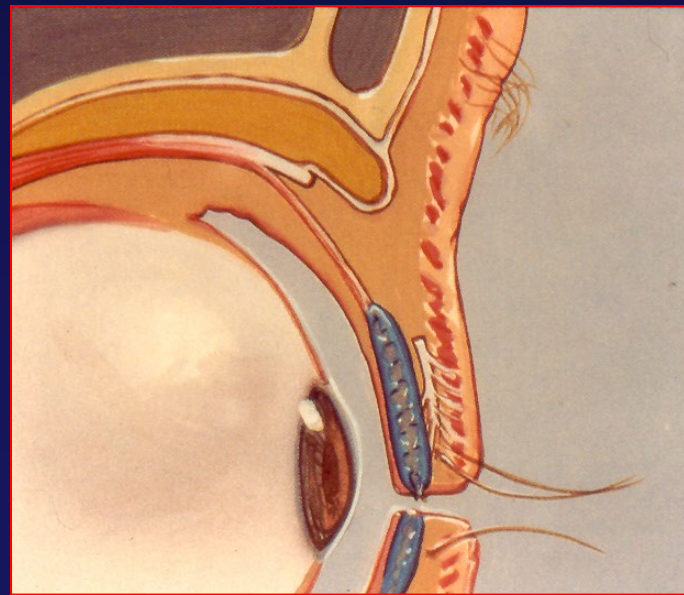
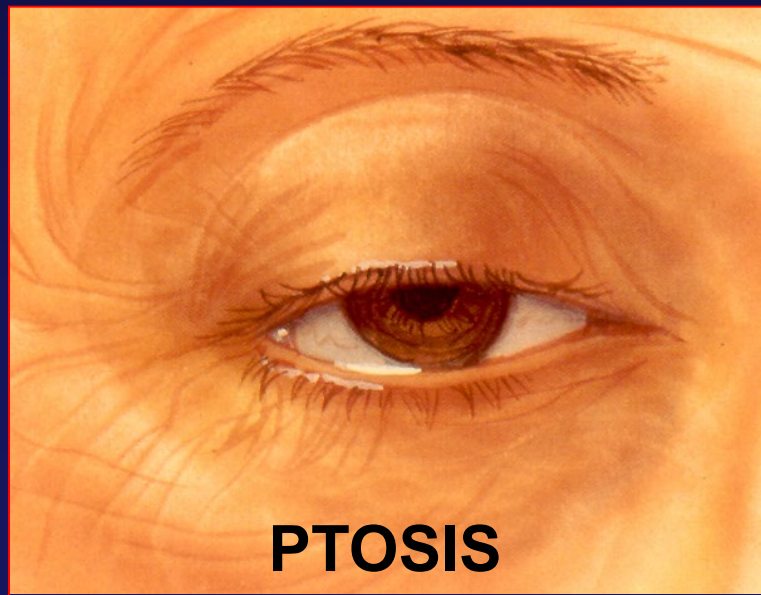
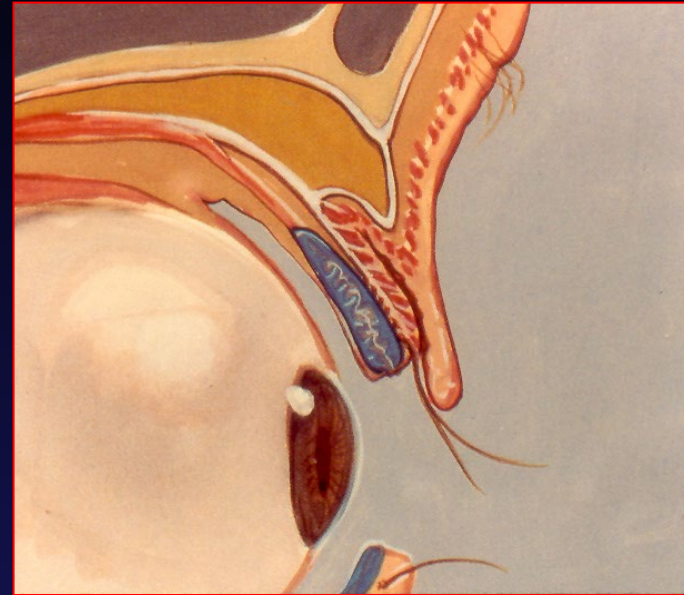
# SECONDARY PROBLEMS



NORI



# SECONDARY PROBLEMS





**DERMATOCHALASIS**



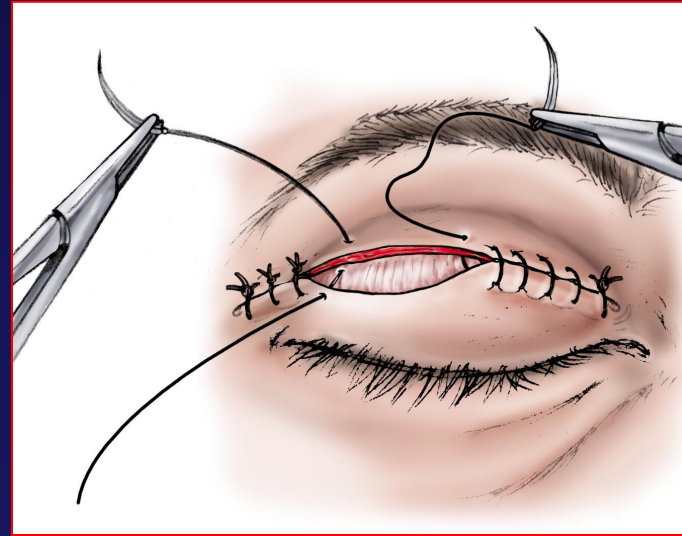
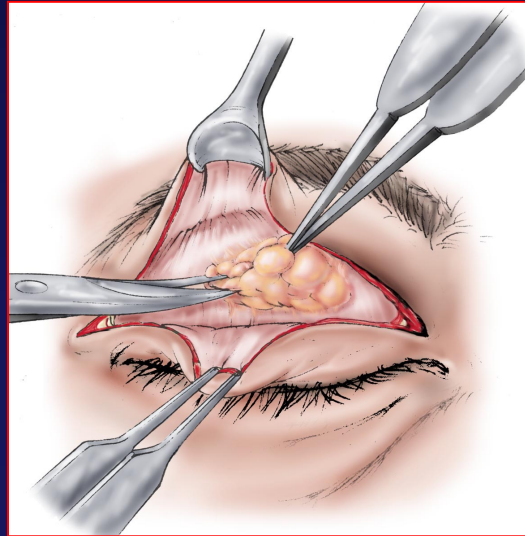
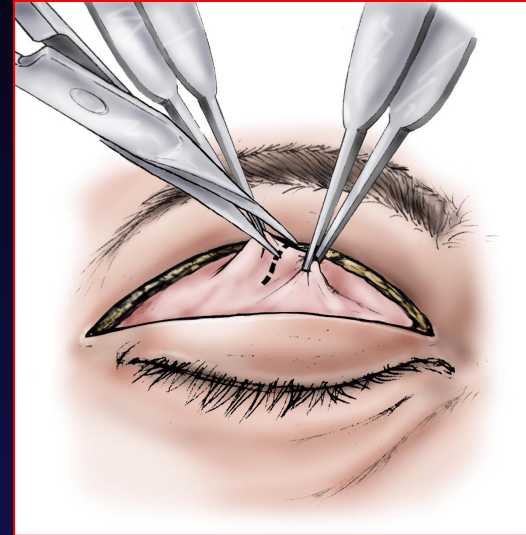
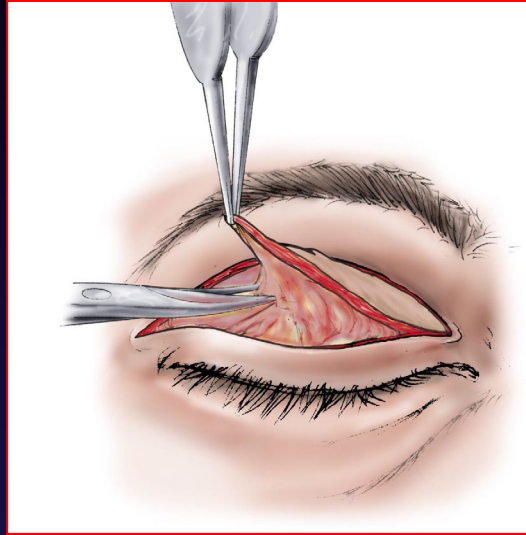
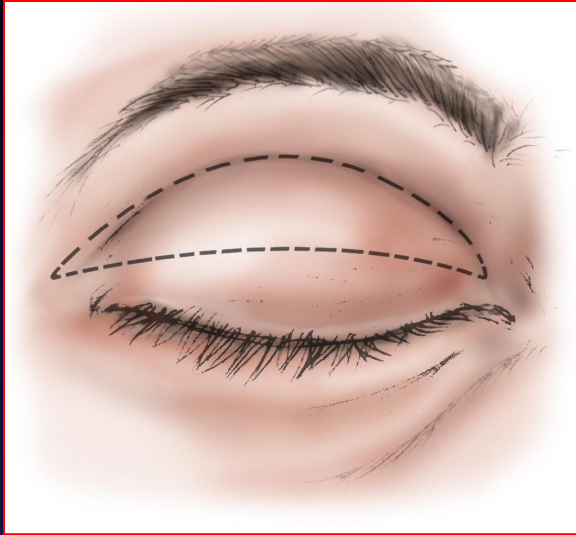
**PTOSIS**



# SECONDARY SURGERY

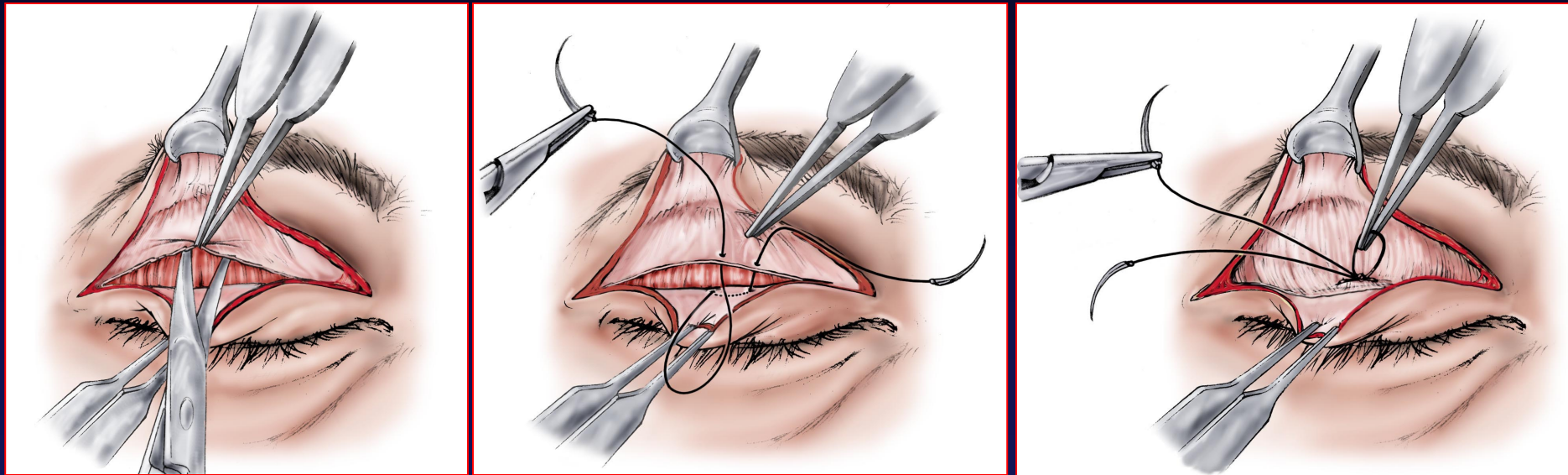
- For dermatochalasis: Upper eyelid blepharoplasty.
  - Removal of excess skin and fat.
- For ptosis: External levator resection.
  - Tightening of levator muscle.
  - More difficult to perform.
  - May require postoperative readjustments.
- Either surgery may exacerbate lagophthalmos and corneal exposure.

# UPPER LID BLEPHAROPLASTY





# EXTERNAL LEVATOR RESECTION

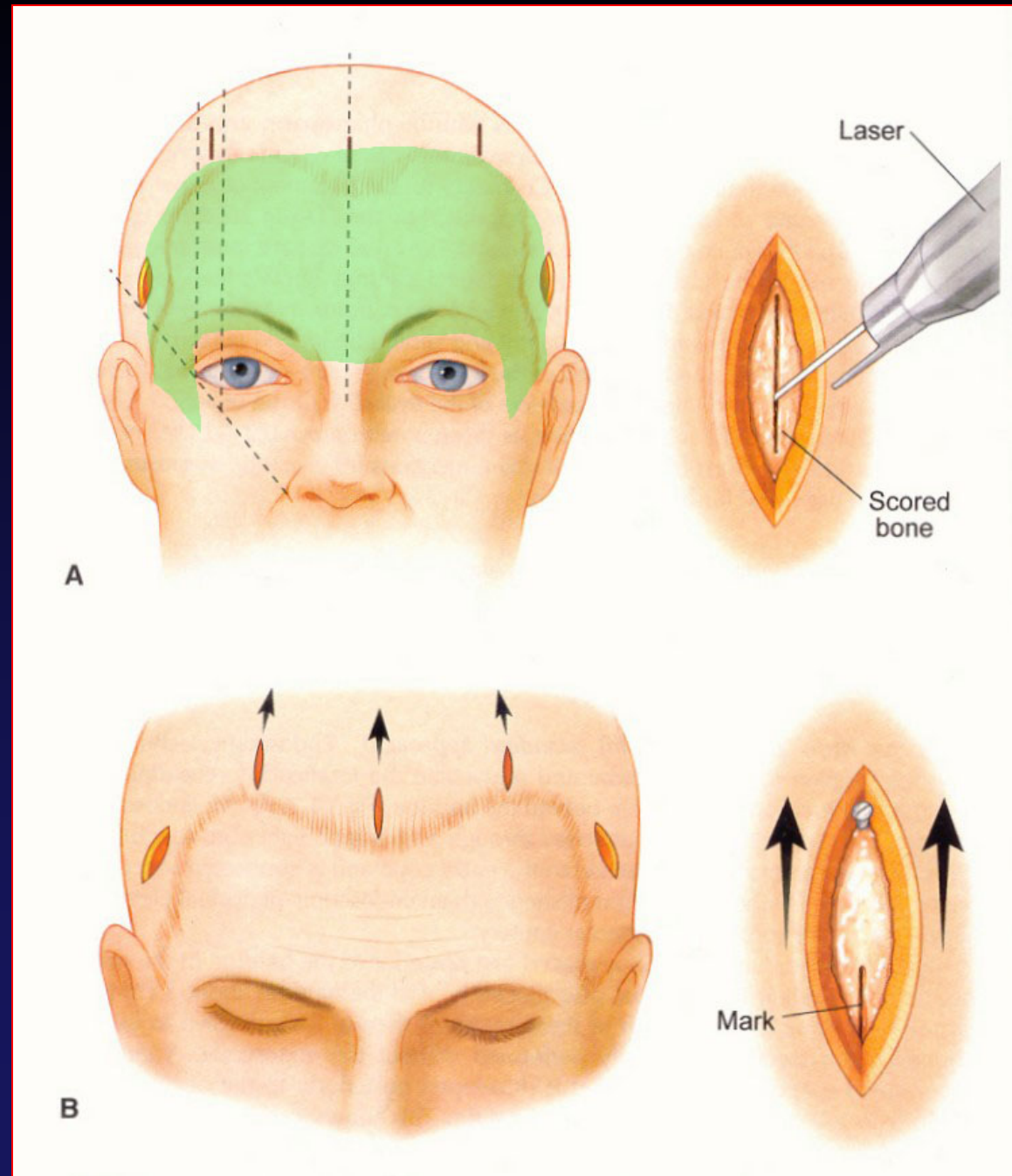


# SECONDARY SURGERY





# BROW LIFT



# RISKS

- ALL surgical procedures have risks and can occur in anyone!
- MYECTOMY
  - Lagophthalmos: 19%
  - Hematoma: 2%
  - Skin necrosis: 2%
  - Ectropion
  - Supraorbital hypesthesia (forehead numbness)
  - Lymphedema (prolonged lid/facial swelling).

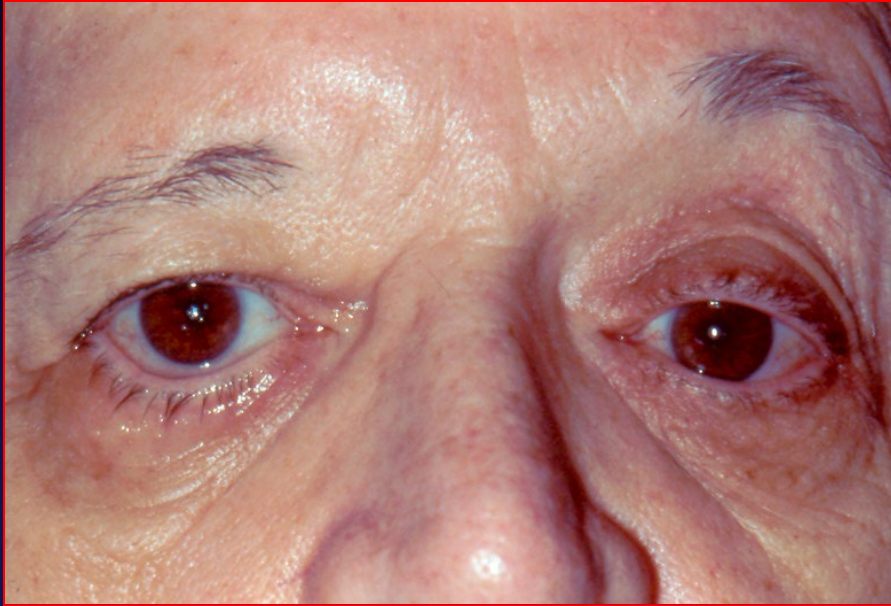




**HEMATOMA  
(BLEEDING)**



**SKIN  
NECROSIS**



**ECTROPION**

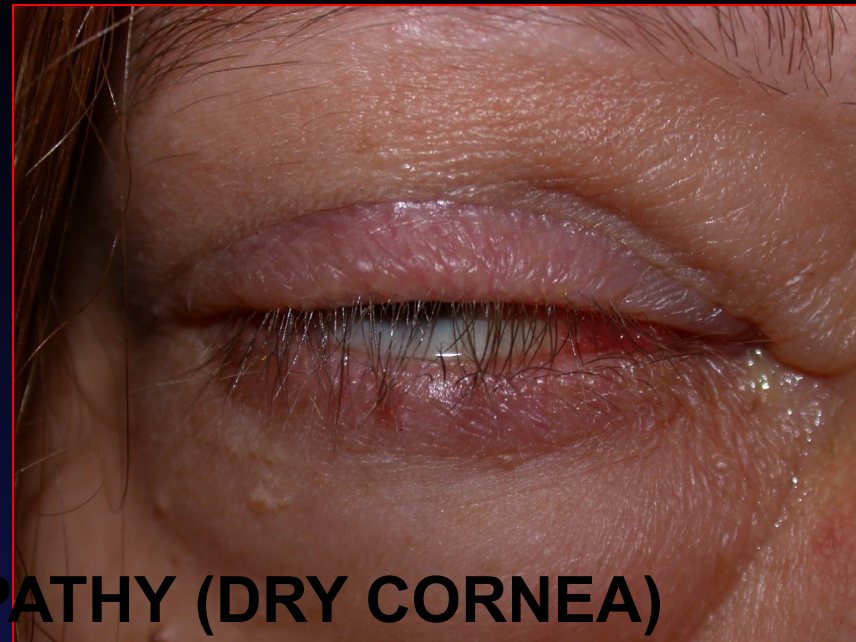


**LAGOPHTHALMOS**





**EXPOSURE KERATOPATHY (DRY CORNEA)**



**ASYMMETRY**





**LYMPHEDEMA**



# RESULTS

- After myectomy, the recurrence of BEB occurred in about 46-59% of patients over 5 years. Many of these cases recurred in the lower eyelids.
- Many patients were controlled with additional botulinum toxin, usually at a lower dose than initially required.
  - Injections may be more painful.
- 94% of patients stated that myectomy provided both short and long term benefits.

# RESULTS

- Severe cases of BEB benefited more than mild or moderate cases.
- Limited myectomy provided more long-term relief than facial nerve avulsion.



# SUMMARY

- Limited myectomy is reserved for patients with severe BEB who have failed botulinum toxin therapy.
- Surgery may have to be staged.
- Botulinum toxin may be needed after myectomy or neurectomy.
- All surgery carries risks.

# Wills Eye Hospital



[www.willseyeonline.org](http://www.willseyeonline.org)