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RECONSTRUCTION OF THE NOSE AND EYELIDS

RECONSTRUCTIVE SURGERY

- “If you know the enemy and know yourself, you need not fear the result of a hundred battles. If you know yourself but not the enemy, for every victory gained you will also suffer a defeat. If you know neither the enemy nor yourself, you will succumb in every battle.”
- —Sun Tzu : The art of War
- 400BC

The enemy = the problem

- Understand the defect
 - Anatomy : what is missing
 - Mechanism of “injury”
 - Context : battle vs campaign

Yourself =clinical judgment

- Resources
 - Anatomy : what is left
 - Materials : autologous, alloplast, xeno/
homograft
 - Experience
 - Skill
 - Patient

Indian Rhinoplasty 1794 (Ayurvedic/Sushruta 600 BC)



BRANCA 1415

Gaspare Tagliacozzi 1597



WW1 Esser & Gilles



MR. H. D. GILLIES.



WW2

McIndoe and the Guinea Pigs



MODERN ERA

- AXIAL PATTERN FLAPS
- REFINEMENTS
- MICROVASCULAR FREE FLAPS
- ALLOPLAST
- XENOGRAFT
- HOMOGRAFT

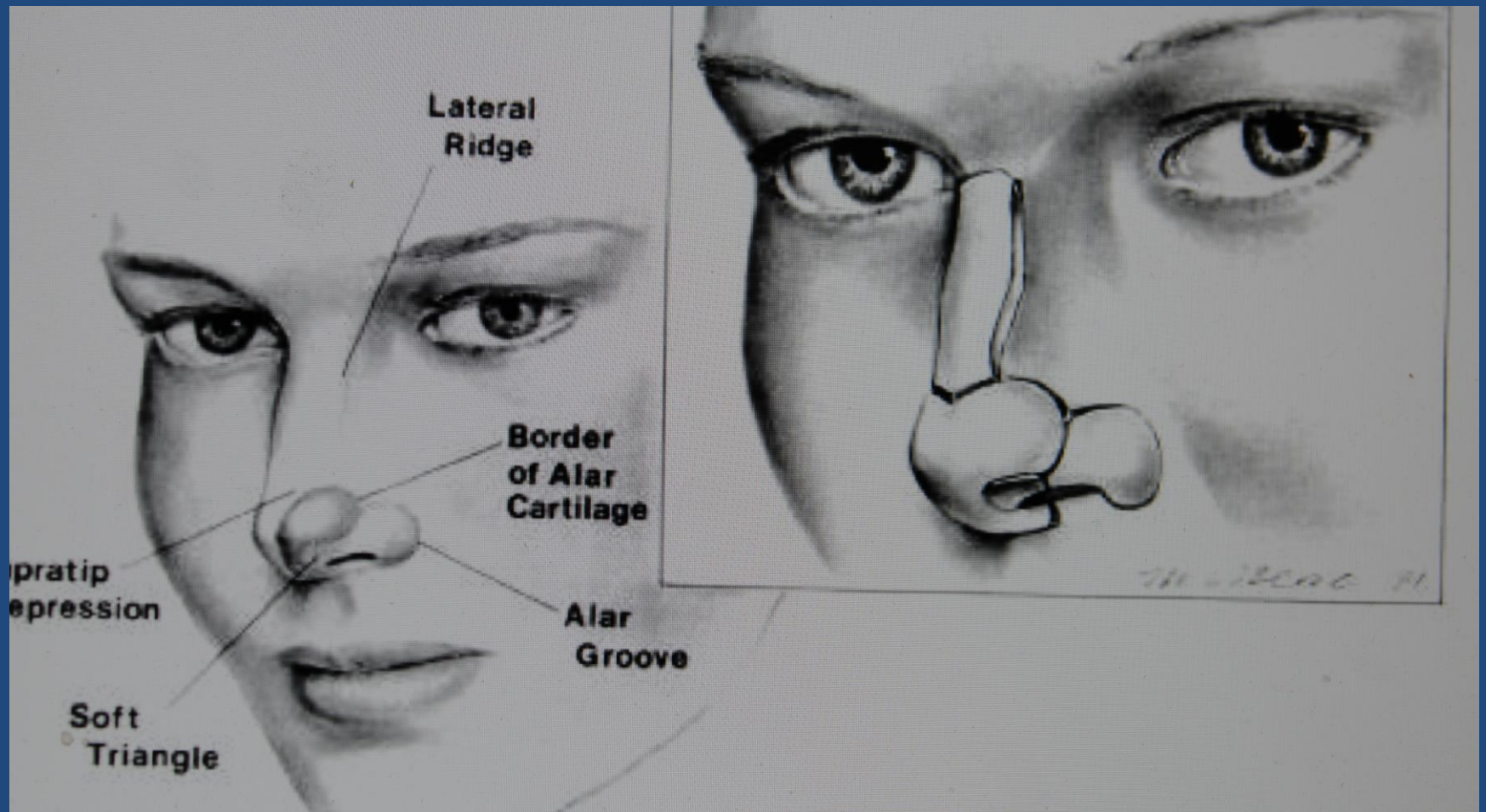
Anatomy

- Skin
- Skeleton: bone and cartilage
- lining
- Donor
- Plumbing and wiring

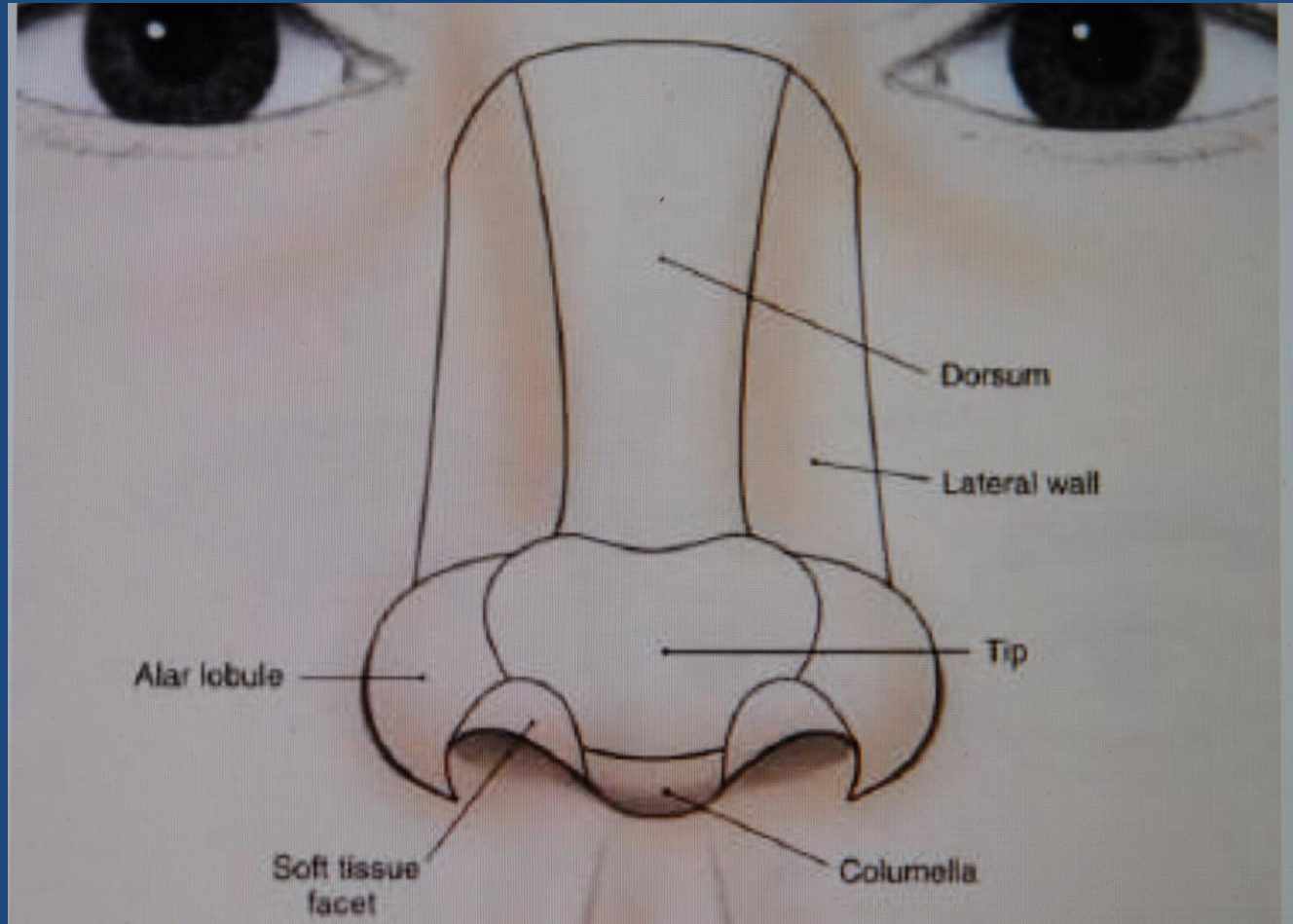
priorities

- 3D shape
- Thickness
- Scar location
- texture

Subunits G Burget 1985

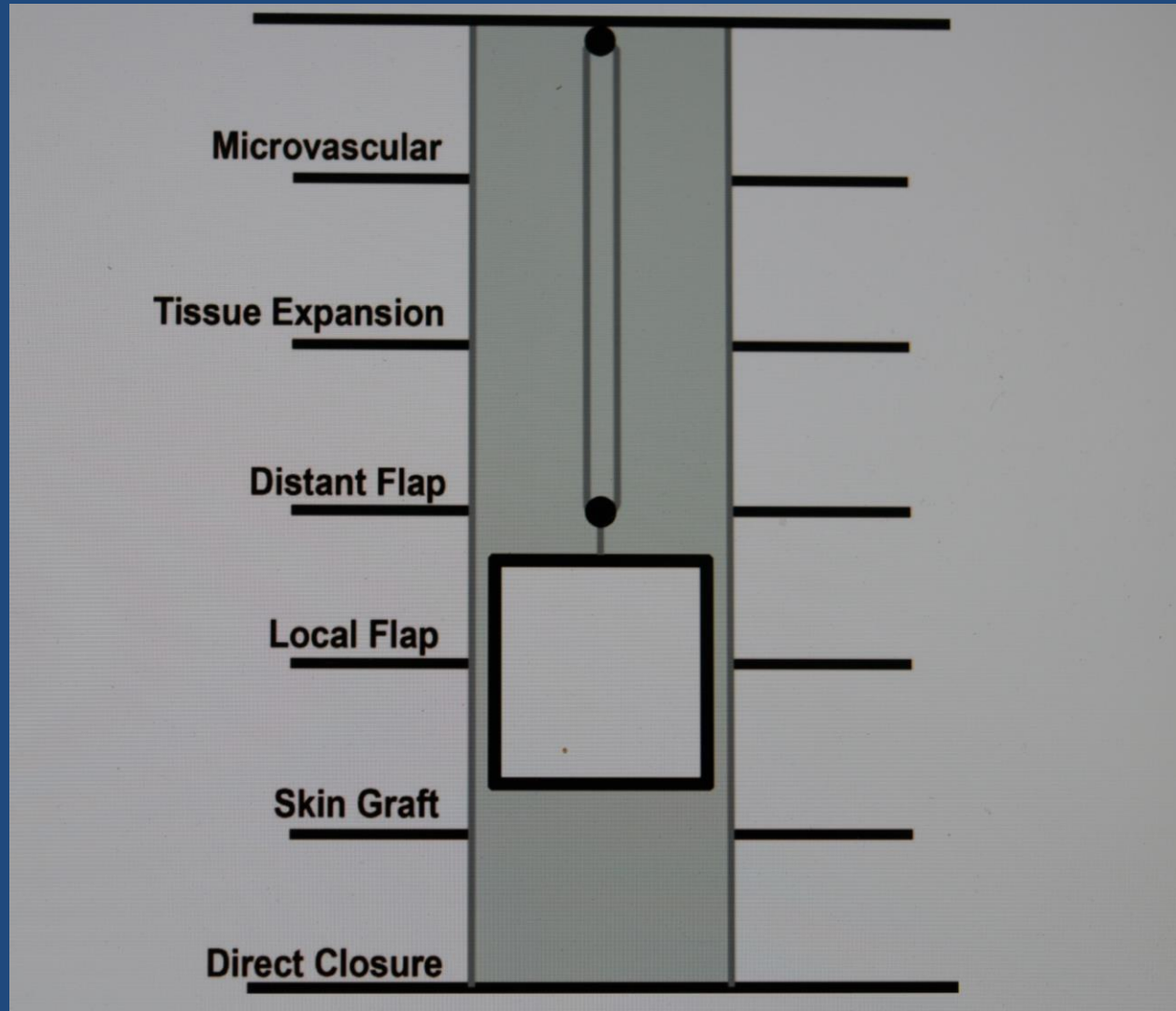


SUBUNITS





RECONSTRUCTIVE ELEVATOR (GOTTLIEB 1994)



Reconstructive campaign

- Combinations
- Stages

patient



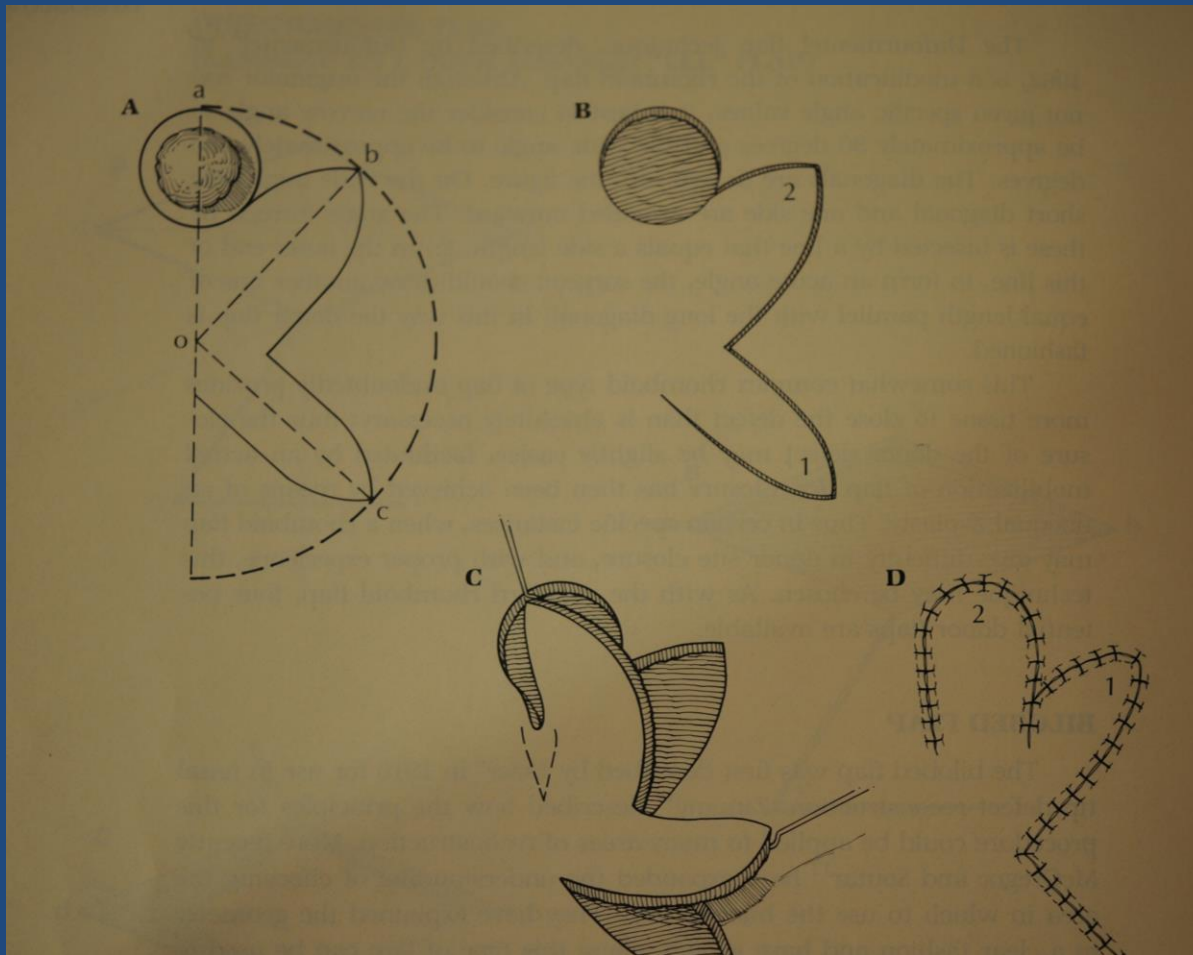
Small skin defects < 50% of subunit

- CONVEX : LOCAL FLAPS
- CONCAVE : GRAFTS or contracture
- NOSTRIL MARGIN : COMPOSITE
- UNCERTAIN MARGIN : GRAFT

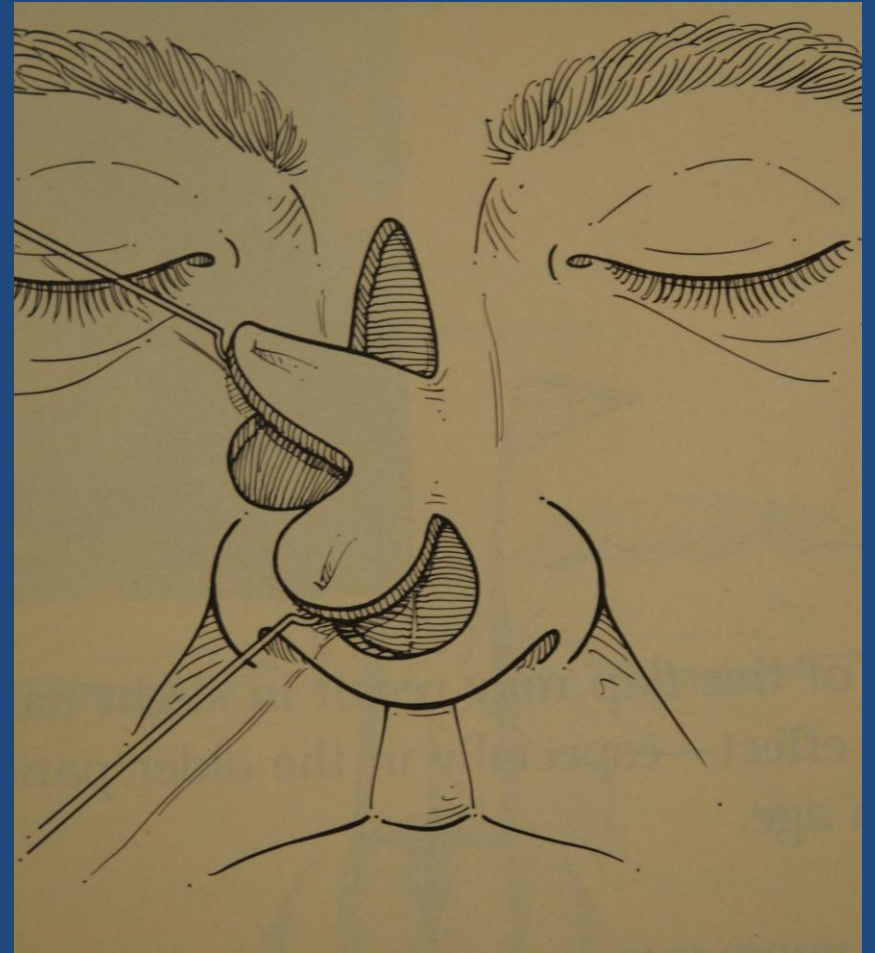
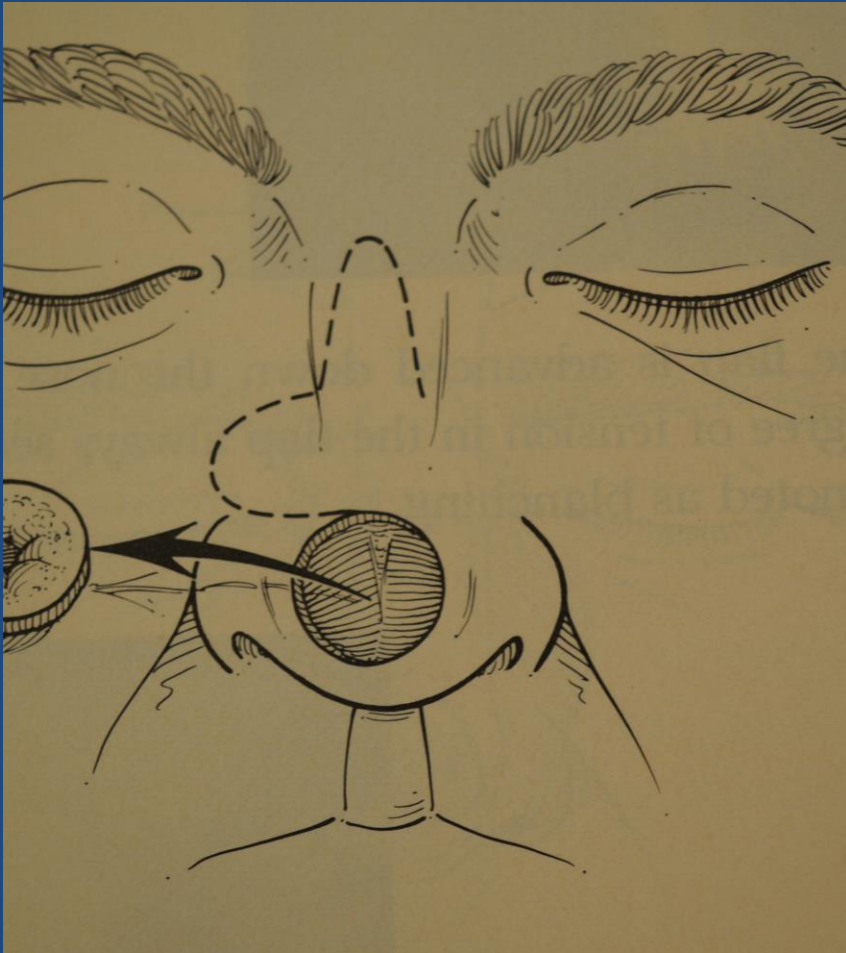
LOCAL FLAPS : WHERE IS THE SPARE?



BILOBED FLAP (Esser 1918)



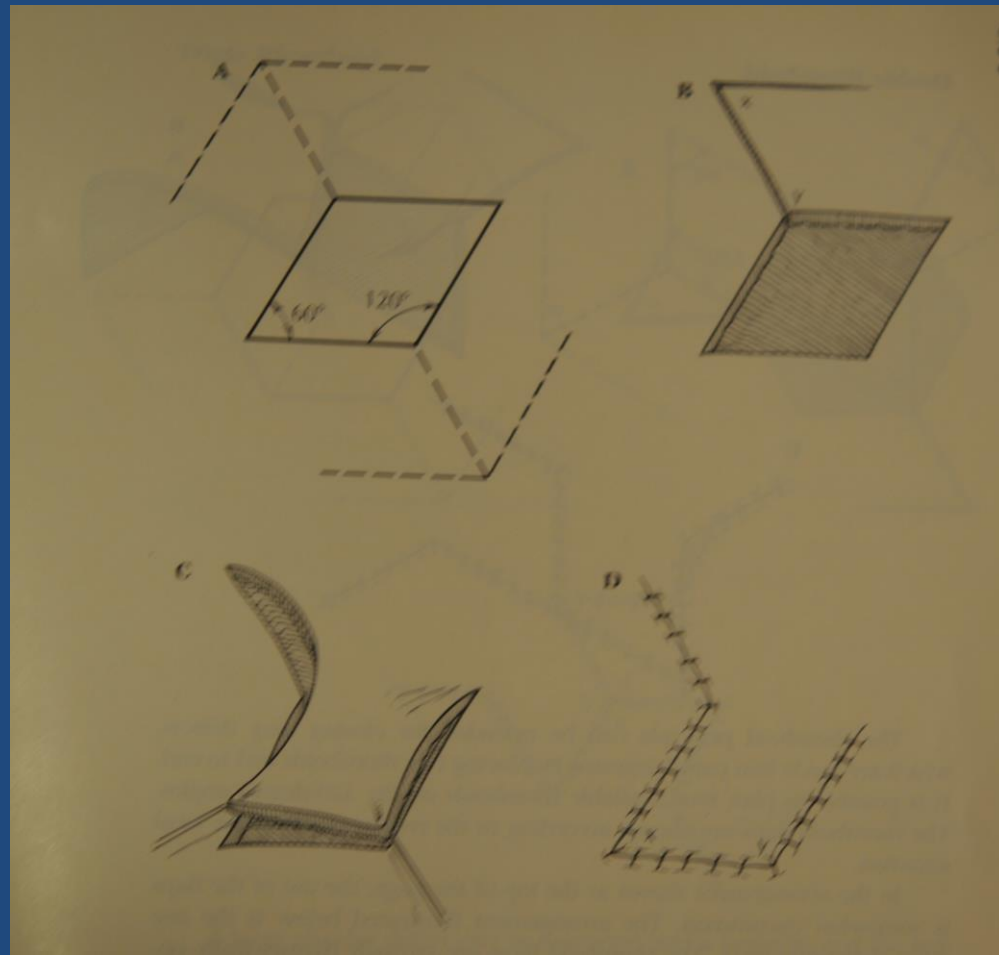
BILOBED FLAP



BILOBED



RHOMBOID (Limberg 1946)



RHOMBOID



Pitfalls of local flaps

- Base of flap across concavity
- Donor worse than defect! (where is the spare?)
- Pin cushioning
- Dog ear
- Tension = Distortion

COMPOSITE = SMALL RIM DEFECTS



Larger/deeper defects > 50% of
subunit

?replace the entire subunit?

- THIN :FTSG
- DEEP : REGIONAL + DISTANT

Dorsal subunit



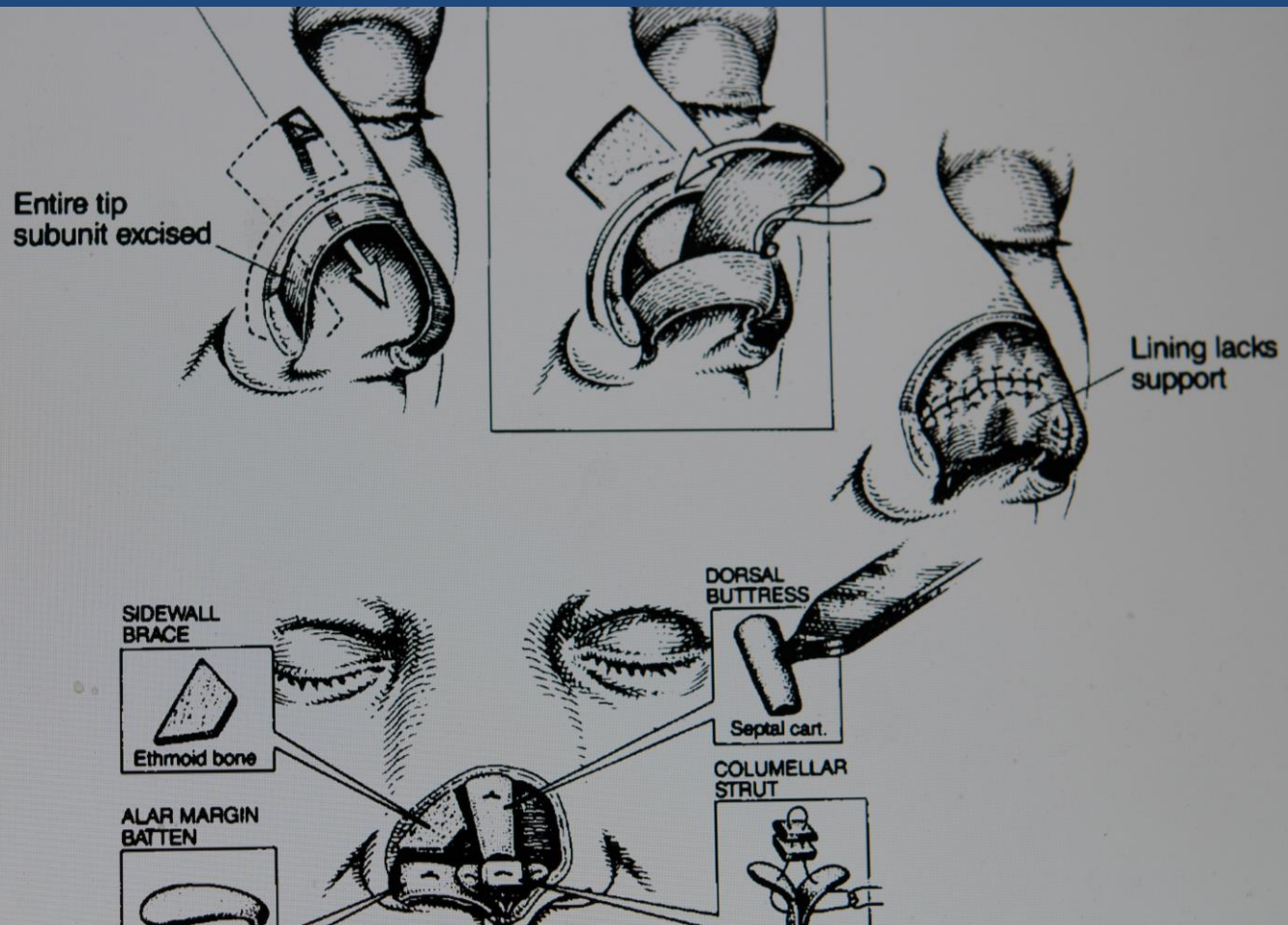
Dorsal subunit



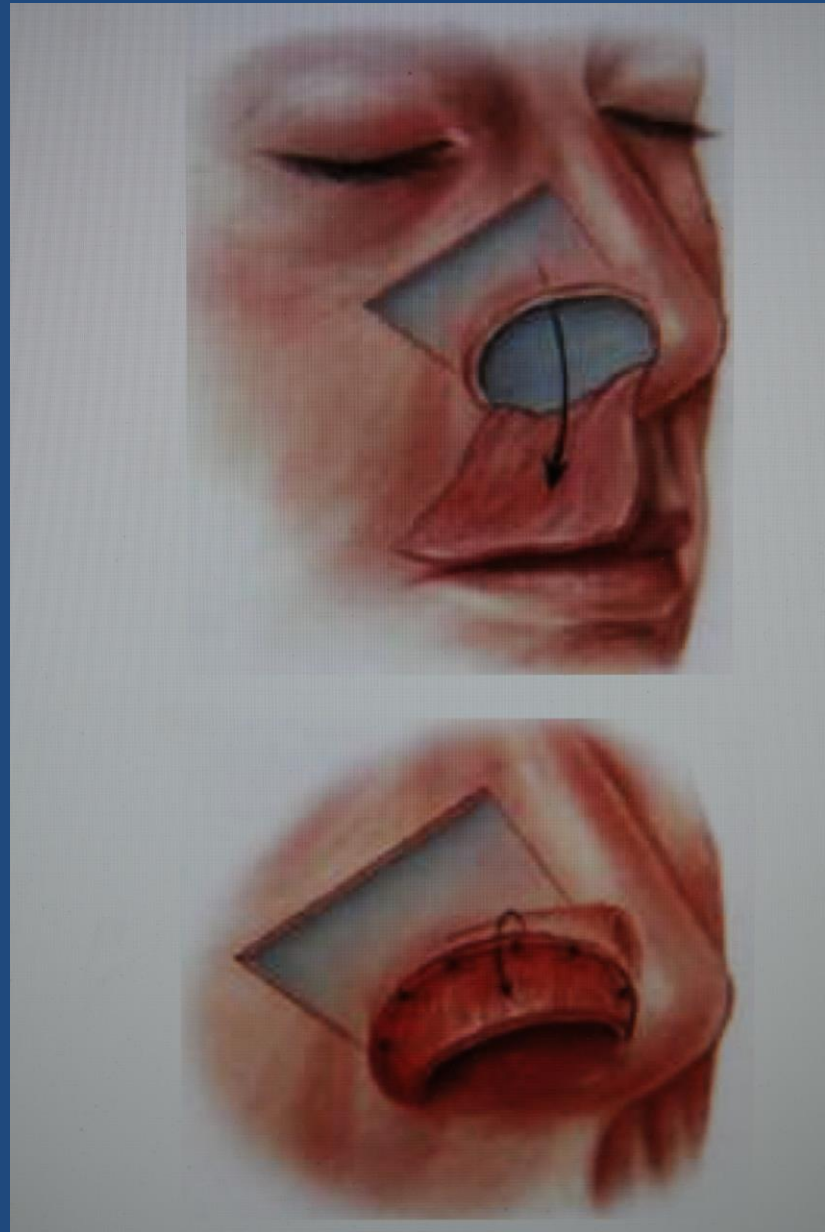
Dorsal subunit



LINING + SKELETON



LINING
THIN
PLIABLE
ENOUGH!



Tip and soft triangle subunits









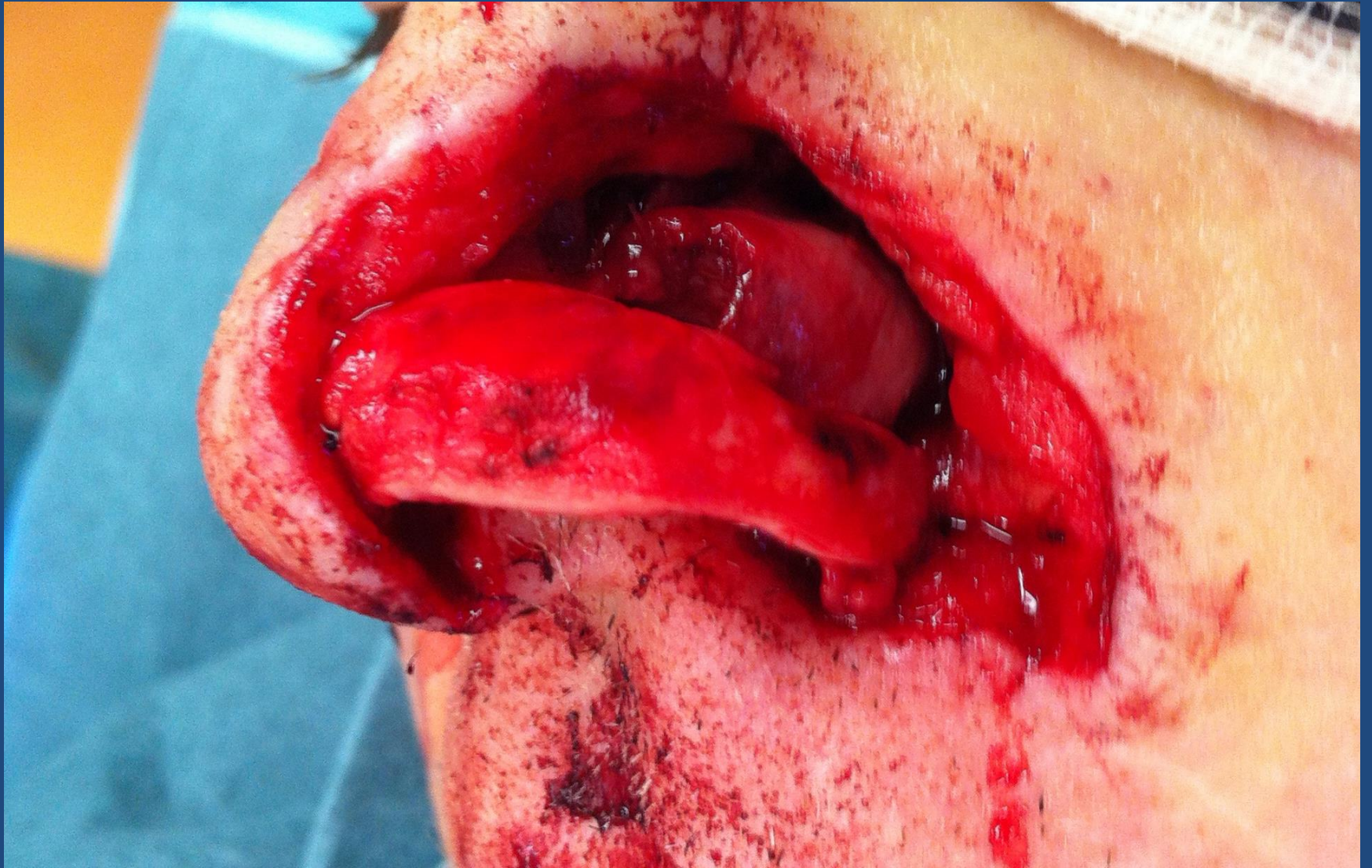
lateral



lateral



lateral



lateral



lateral



Platform and lining



platform



platform



platform





prosthesis



EYELIDS

- LAMELLAE
 - ANTERIOR = SKIN AND ORBICULARIS
 - POSERIOR = CONJUNCTIVA AND TARSUS
- FUNCTION
 - UPPER = CORNEAL PROTECTION **MOBILE**
 - LOWER = TEAR CATCHER **STATIC**

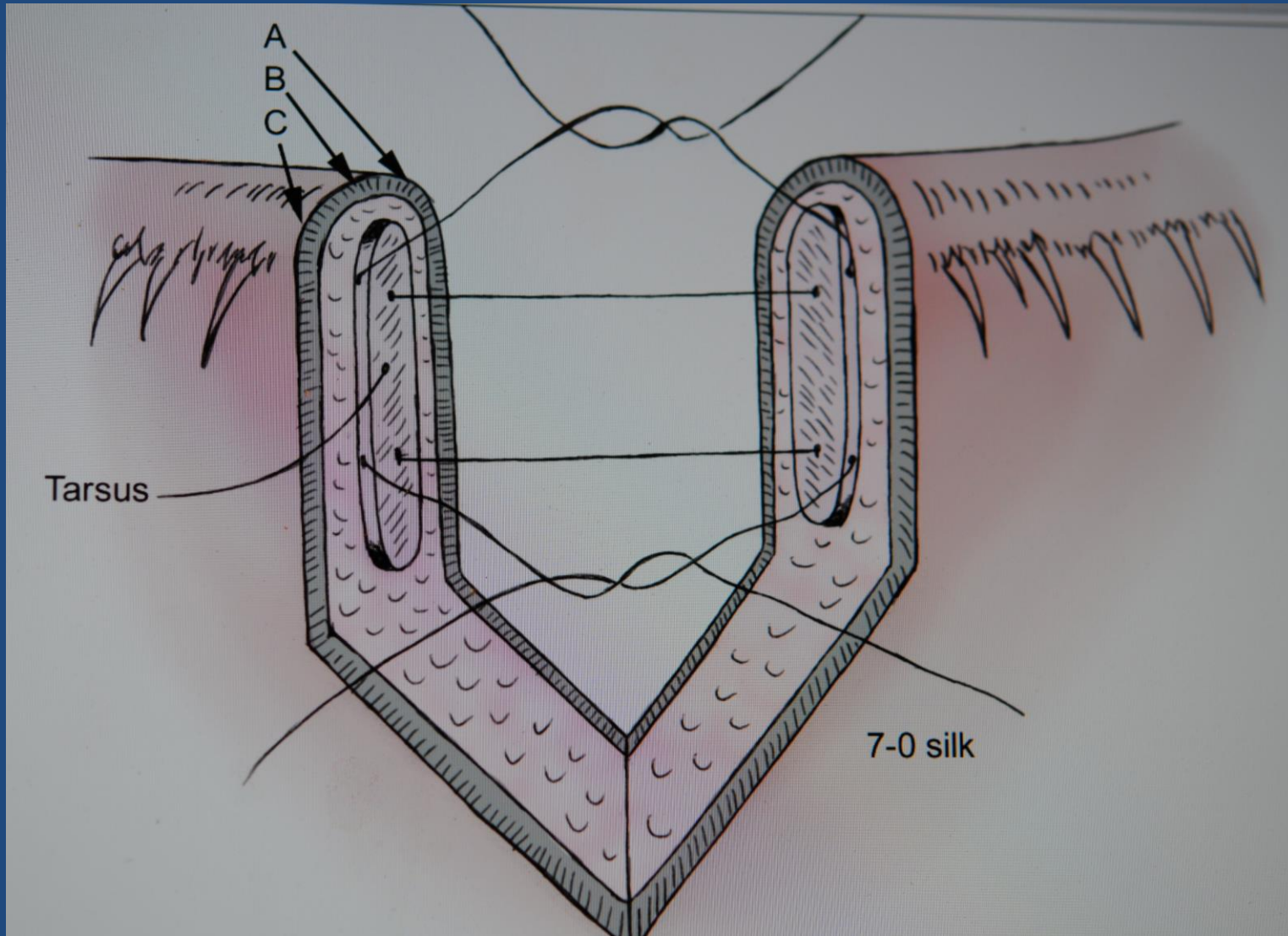
RECONSTRUCTION

VERY LOCAL

Anterior lamella

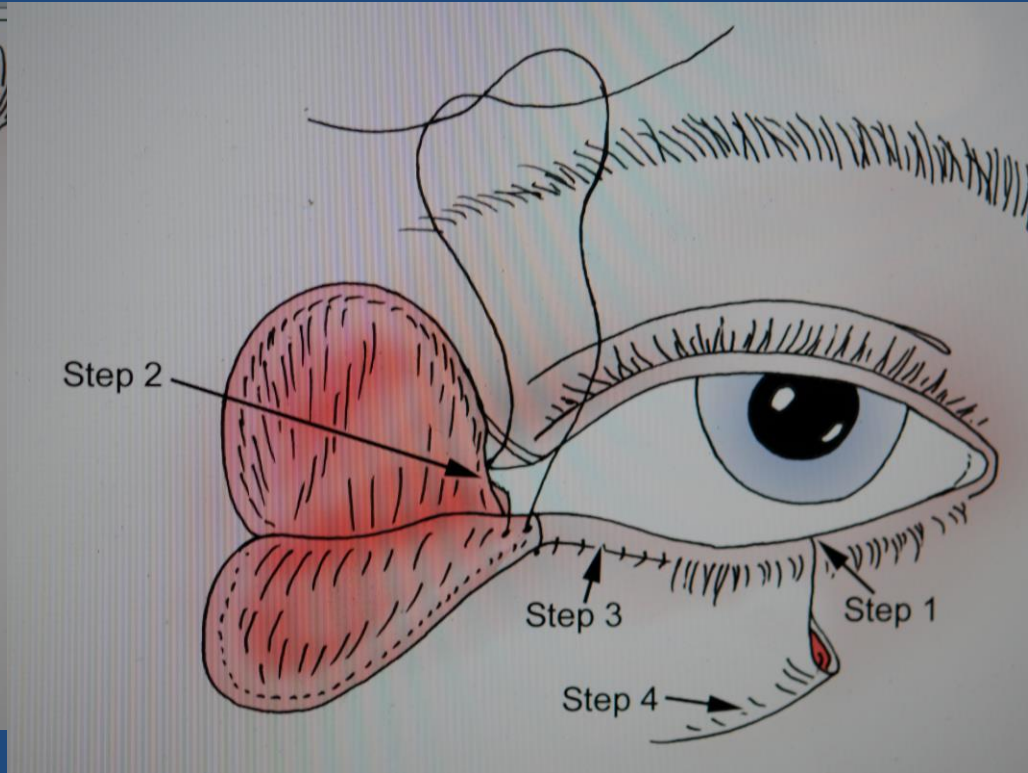
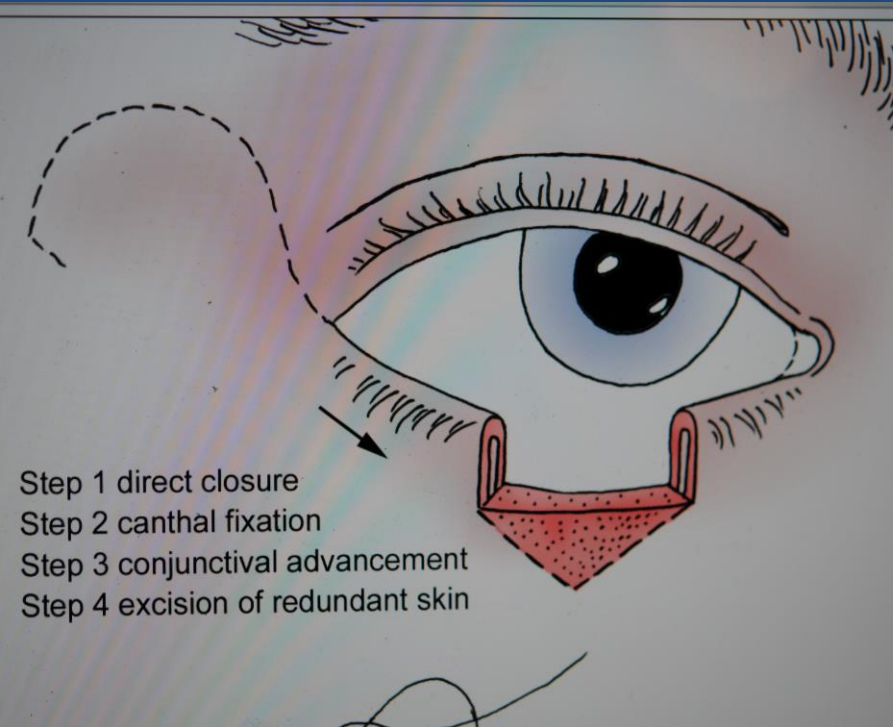
- Like with like => local skin/muscle (esp lower lid)
- Large /transverse skin only = FTSG
- Avoid vertical V-Y

AVOID SECONDARY HEALING



AVOID DISTORTION

- IF DIRECT CLOSURE WILL CAUSE DISTORTION
BRING IN A FLAP AND/OR GRAFT



LINE THE FLAP

- NB : PRIMARY CLOSURE OF BOTH LAMELLAE
 - MOBILISE CONJUNCTIVA
 - BUCCAL MUCOSAL GRAFT
 - HARD PALATE MUCOSAL GRAFT
 - NASAL CHONDROMUCOSAL ??

NO VERTICAL LID TENSION

- ECTROPION
- ENTROPION
- CORNEAL EXPOSURE
- OBVIOUS DEFORMITY AT MARGIN

NO VERTICAL TENSION



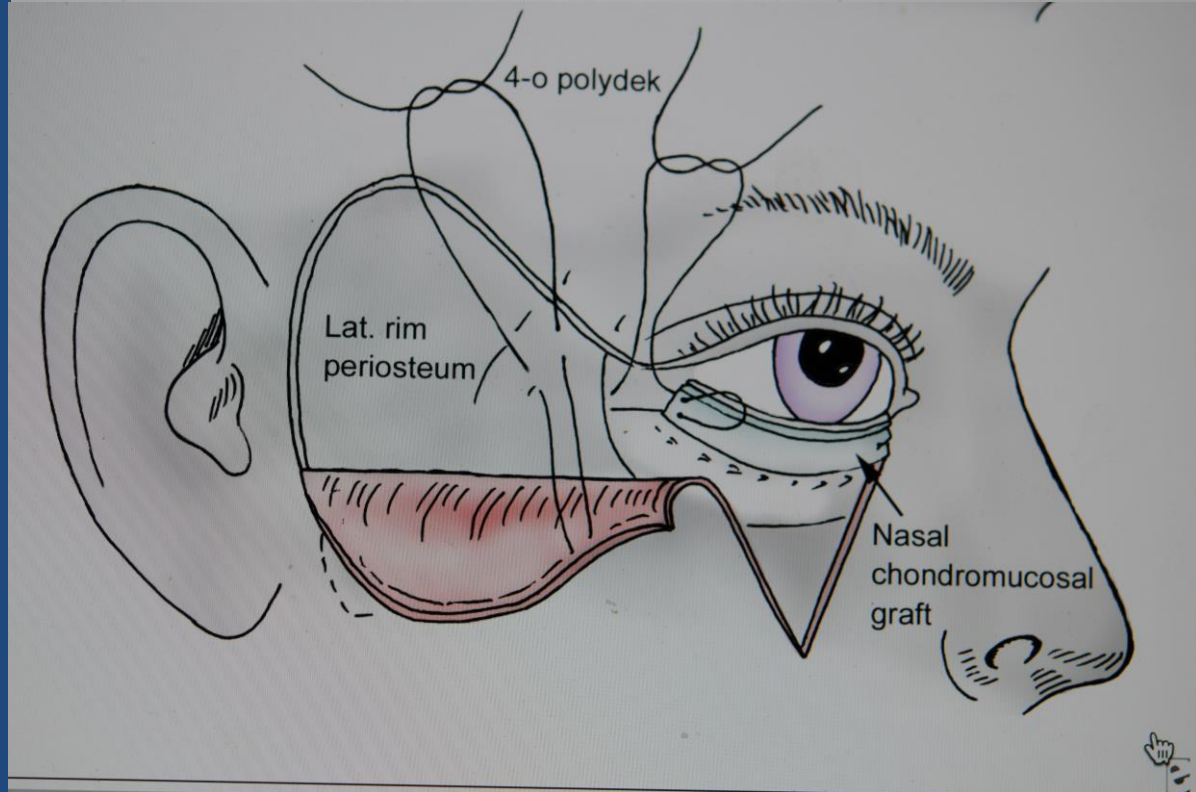
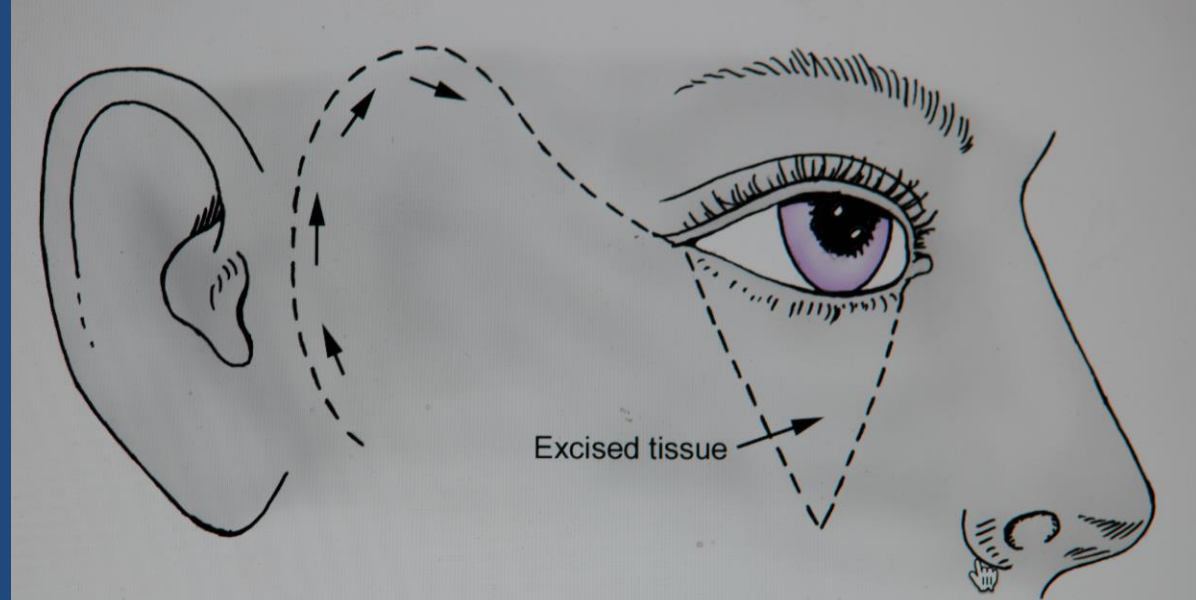
MUSTARDE'

LONG LAT LIMB

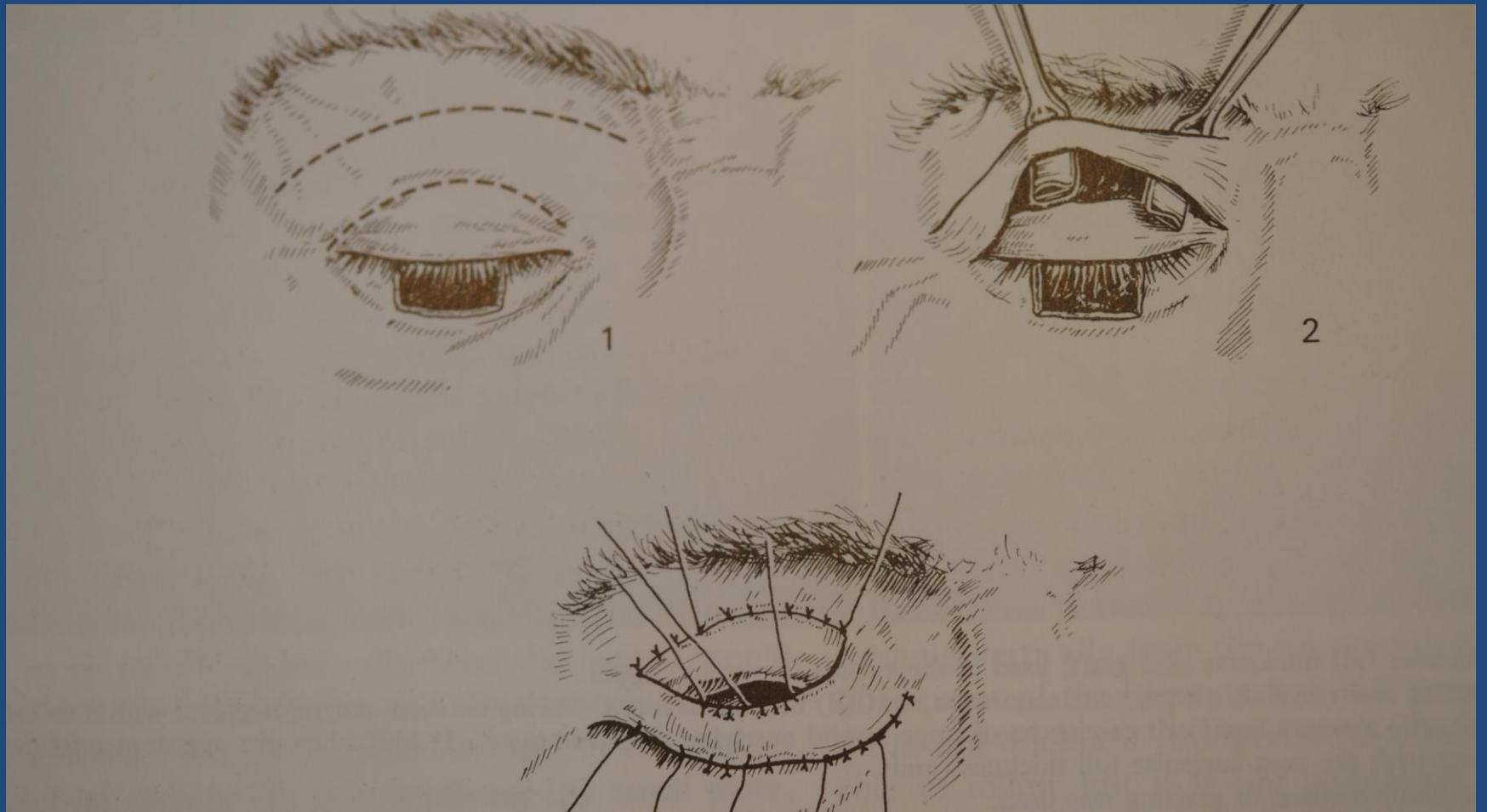
HIGH ARC

BONE SUSPENSION

STITCH SEQUENCE



BIPEDICLED

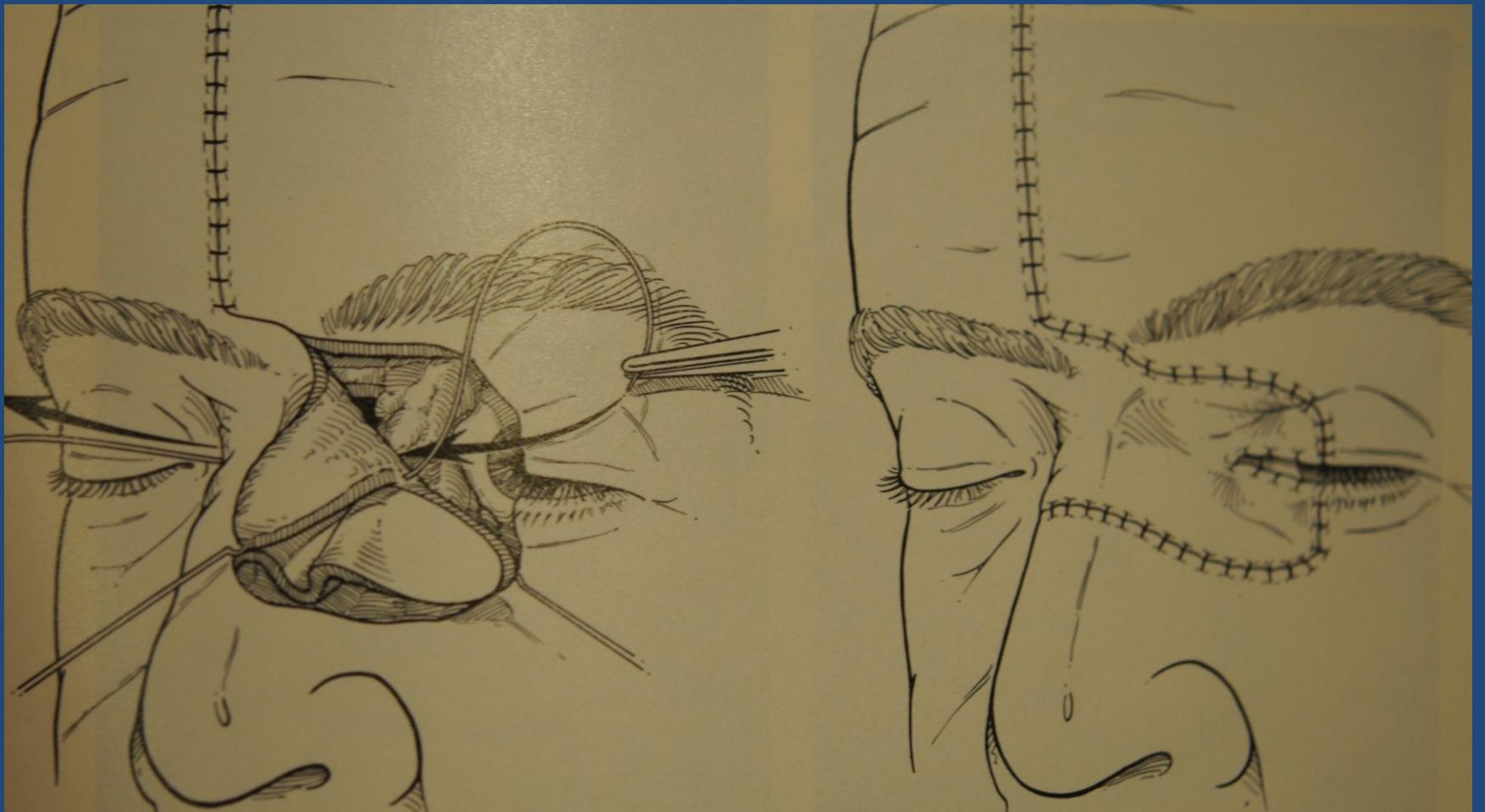


CANTHI

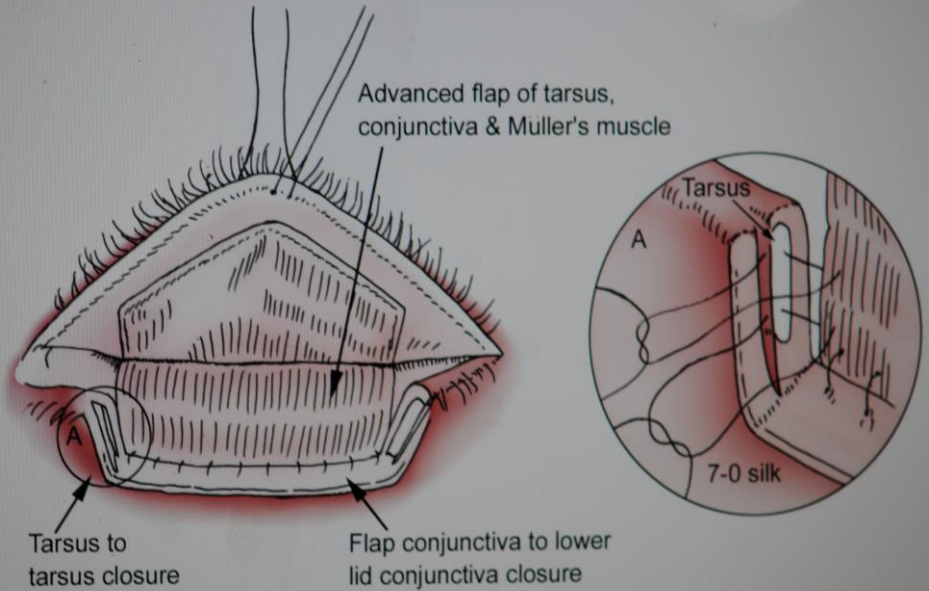
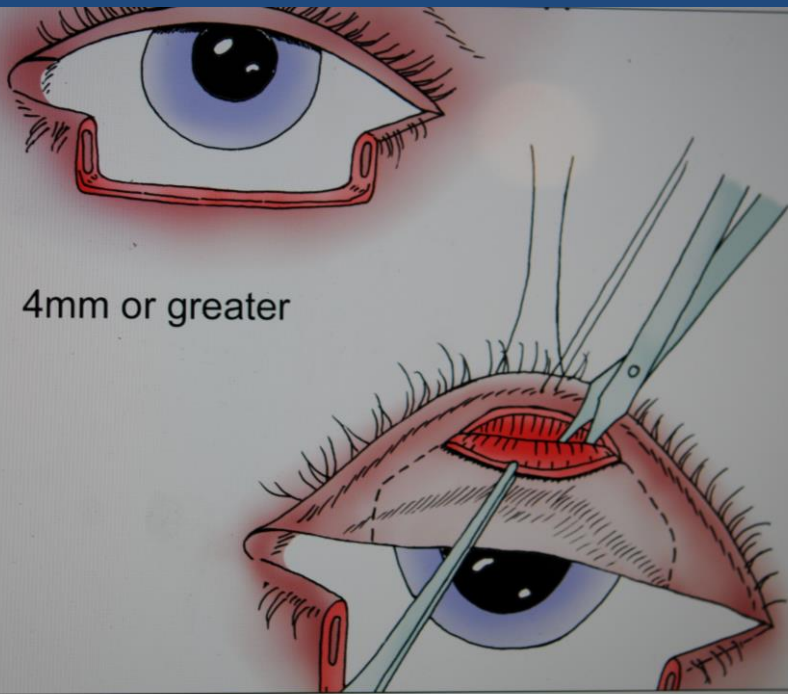
“OVER THE HORIZON”

- ATTACH **INSIDE** THE ORBIT
- MEDIAL = MITEK OR BONE GRAFT
- LATERAL BONE TUNNELS
- TFL GRAFT

LAST RESORT FLAPS



HUGHES



EXTENSILE APPROACH

- ROTATION FLAPS
 - PRIMARY
 - + LATERAL CANTHOTOMY (hemi)
 - + TEMPORAL EXTENSION
 - + Z PLASTY
 - + CHEEK
 - +NECK