Blepharoplasty

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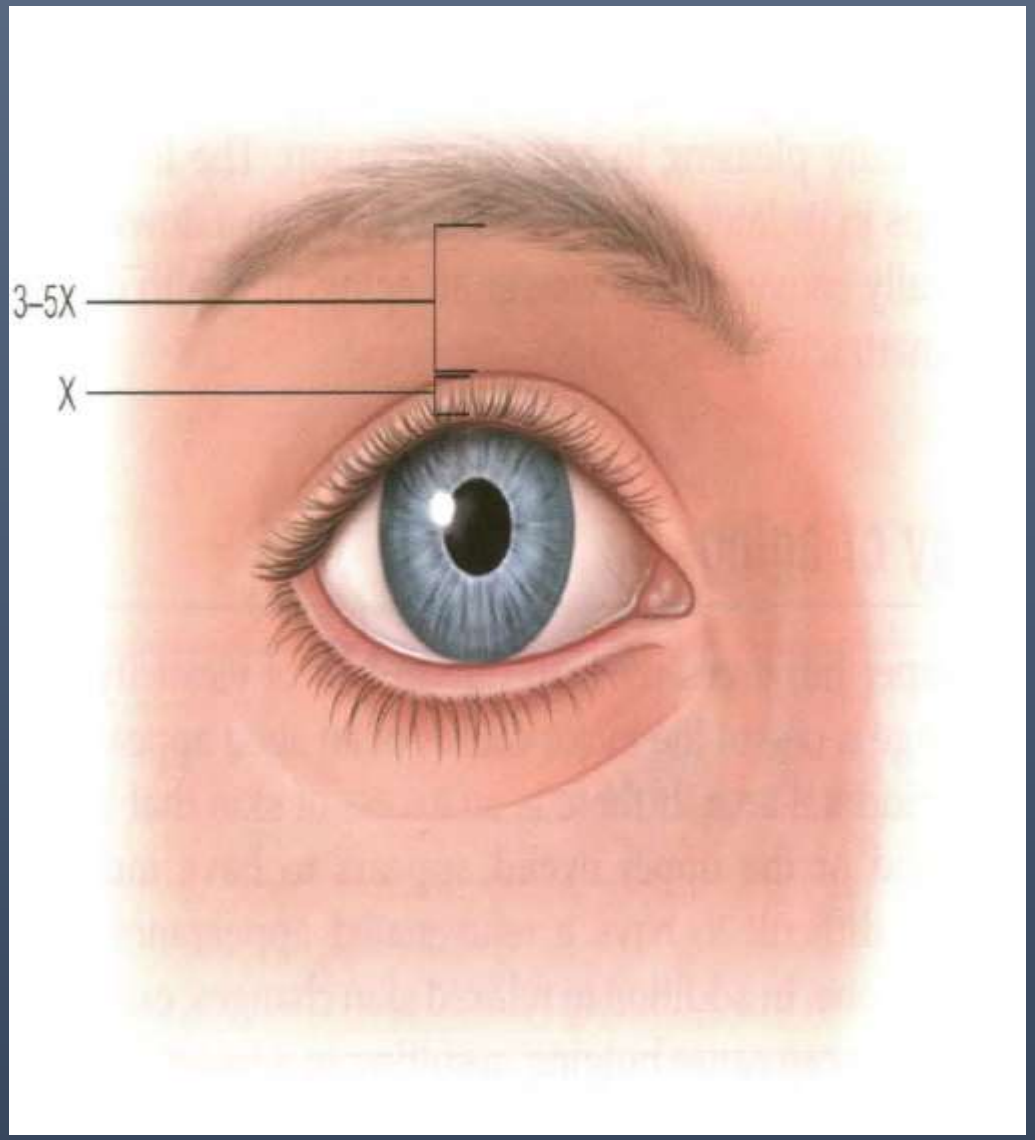
Youthful, beautiful eyes

- The characteristics of youthful, beautiful eyes differ from one population to another.
- In a relaxed forward gaze, the vertical height of the aperture should expose at least three-quarters of the cornea with the upper lid extending down at least 1.5 mm below the upper limbus (the upper margin of the cornea) but no more than 3 mm. The lower lid ideally covers 0.5 mm of the lower limbus but no more than 1.5 mm.[4]
- In the upper lid, there should be a well-defined lid crease lying above the lid margin with lid skin under slight stretch, slightly wider laterally.



- sclera show is contradictory to optimal aesthetics and may be perceived as a sign of :
  - Aging
  - previous blepharoplasty
  - orbital disease (e.g., thyroid disease)
  - More than 0.5 mm of sclera show beneath the cornea on direct forward gaze begins to confer a sad or melancholy aura to one's appearance
- The intercanthal axis is normally tilted slightly upward (from medial to lateral) in most populations

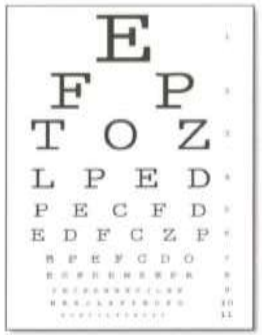
Etiology of aging

- Skin laxity due to loss of elasticity
- Excessive fat herniation
- Relaxation of the tarsal margin with scleral show
- Hollowing of the nasojugal groove and lateral orbital rim areas

Evaluation basics

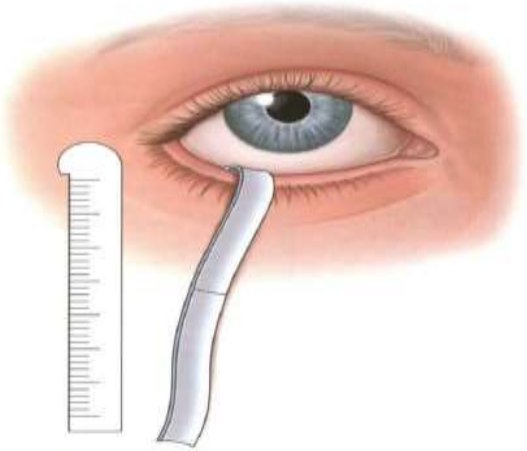
- **Medical and ophthalmic history**
- Medication use: particularly anticoagulants, anti-inflammatory and cardiovascular drugs, and vitamins (especially vitamin E).
- Herbal supplement use: herbs represent risks to anesthesia and surgery, particularly those affecting blood pressure, blood coagulation, the cardiovascular system, and healing.
- Allergies: medication and type.
- Past medical history especially hypertension, diabetes, cardiovascular and cerebrovascular disease, hepatitis, liver disease, heart disease or arrhythmias, cancer, thyroid disease, and endocrine disease.
- Bleeding disorders or blood clots.
- Psychiatric disease.
- Alcohol and smoking history.
- Recreational drug use, which may interact with anesthesia.
- Exposure to human immunodeficiency virus and hepatitis virus.
- Any history of facial herpes zoster or simplex.

Ocular examination

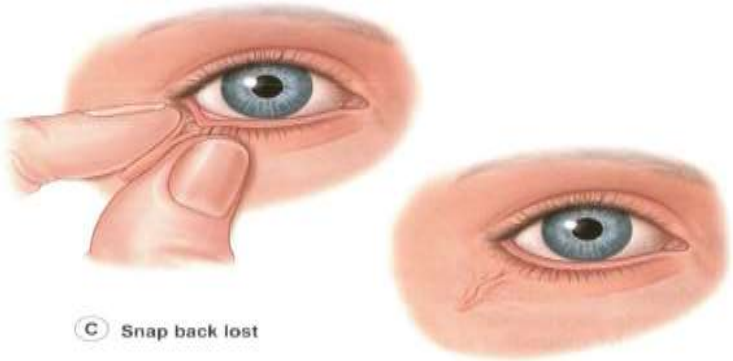


V_a (SC) $< \frac{20/40}{20/40}$ V_a (CC) $< \frac{20/20}{20/20}$

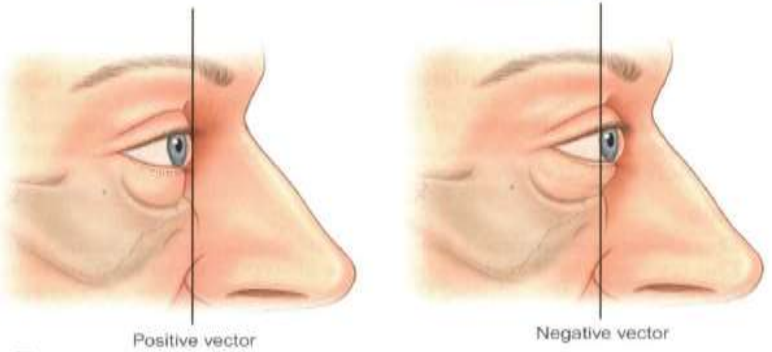
A Visual acuity via Snellen chart



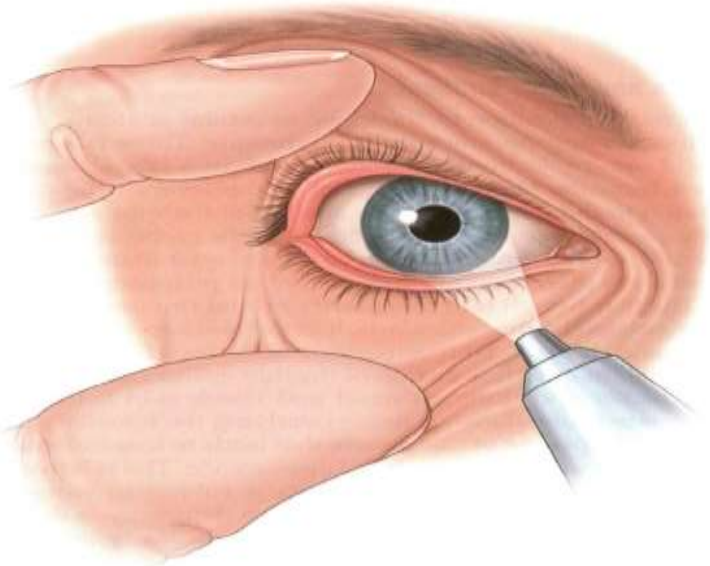
B Schirmer's test



C Snap back lost



D Malar support



E Tear film break up time

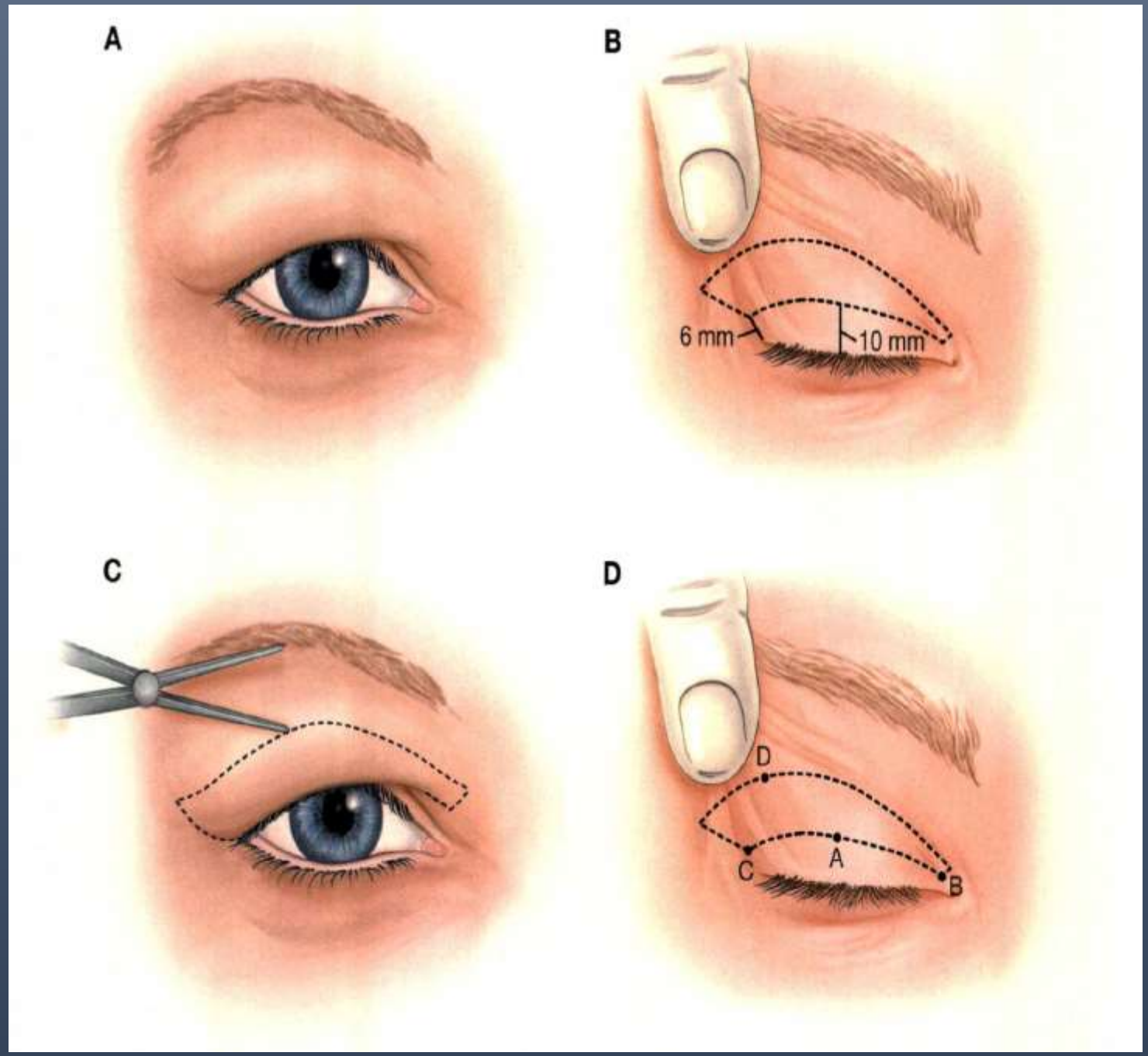
Patient selection

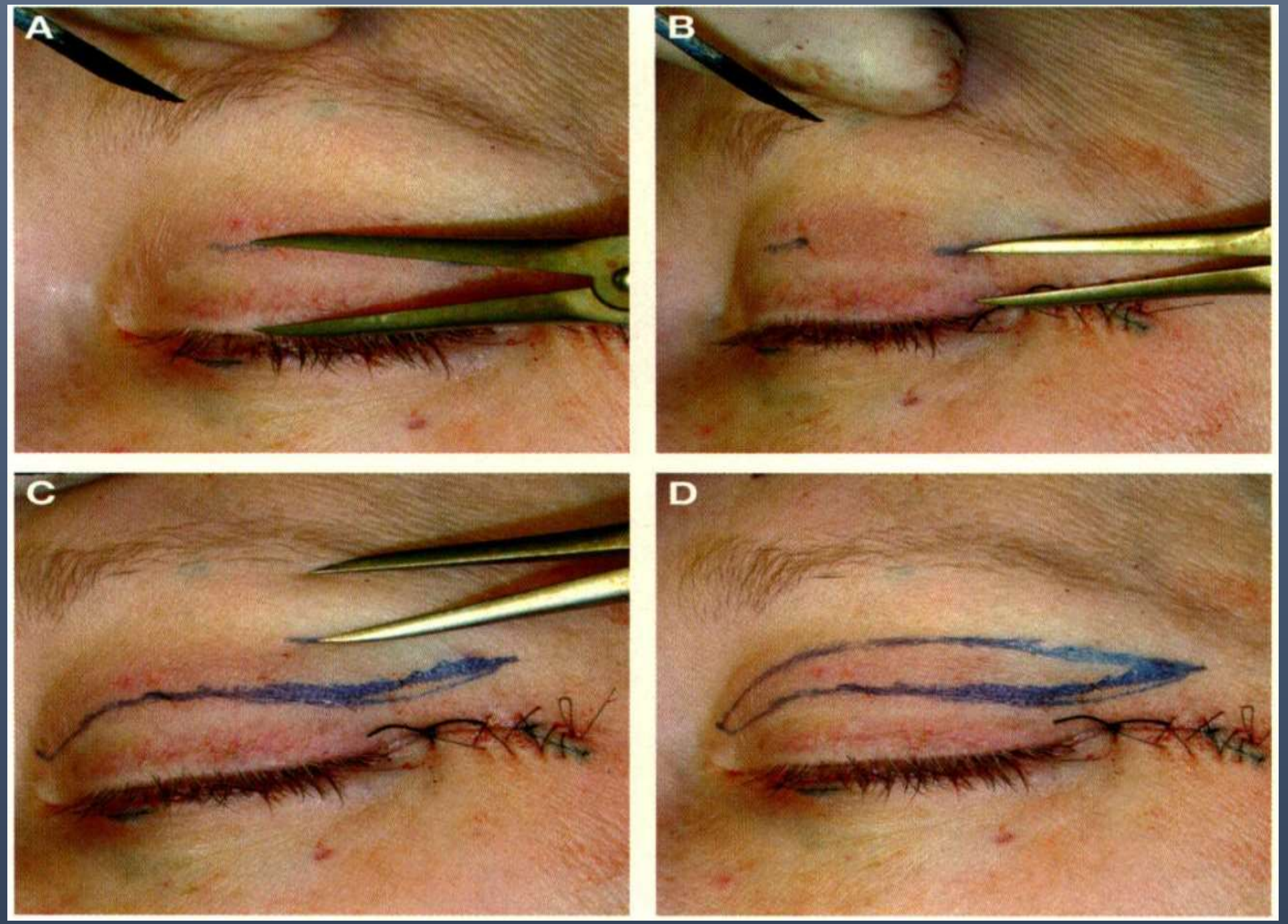
Anatomic-directed therapy

- *Upper eyelid position*
  - 20 mm of upper lid skin must remain between the bottom of the central eyebrow and the upper lid margin to allow adequate lid closure during sleep, a well-defined lid crease, and an effective and complete blink.
- *Lower eyelid tonicity*
- *Eyelid ptosis or retraction*
- *Globe position and malar prominence*
- *Tear trough deformities*
- *Optimal brow positioning*

Upper eyelid surgery

A)In designing the skin excision in upper lid blepharoplasty, the surgeon must keep in mind both the desired aesthetic result and the need for postoperative lid closure. B-D) In women the lid is marked 10mmabove the lash linein the central part of the lidand 7 mmat the lateralcanthus. In men the central measurement may be less. The upper edge of the ellipse is usually 1 to 1.5 cm below the edge of the lateral brow. The nasal part of the excision is usually 5 mm wide.

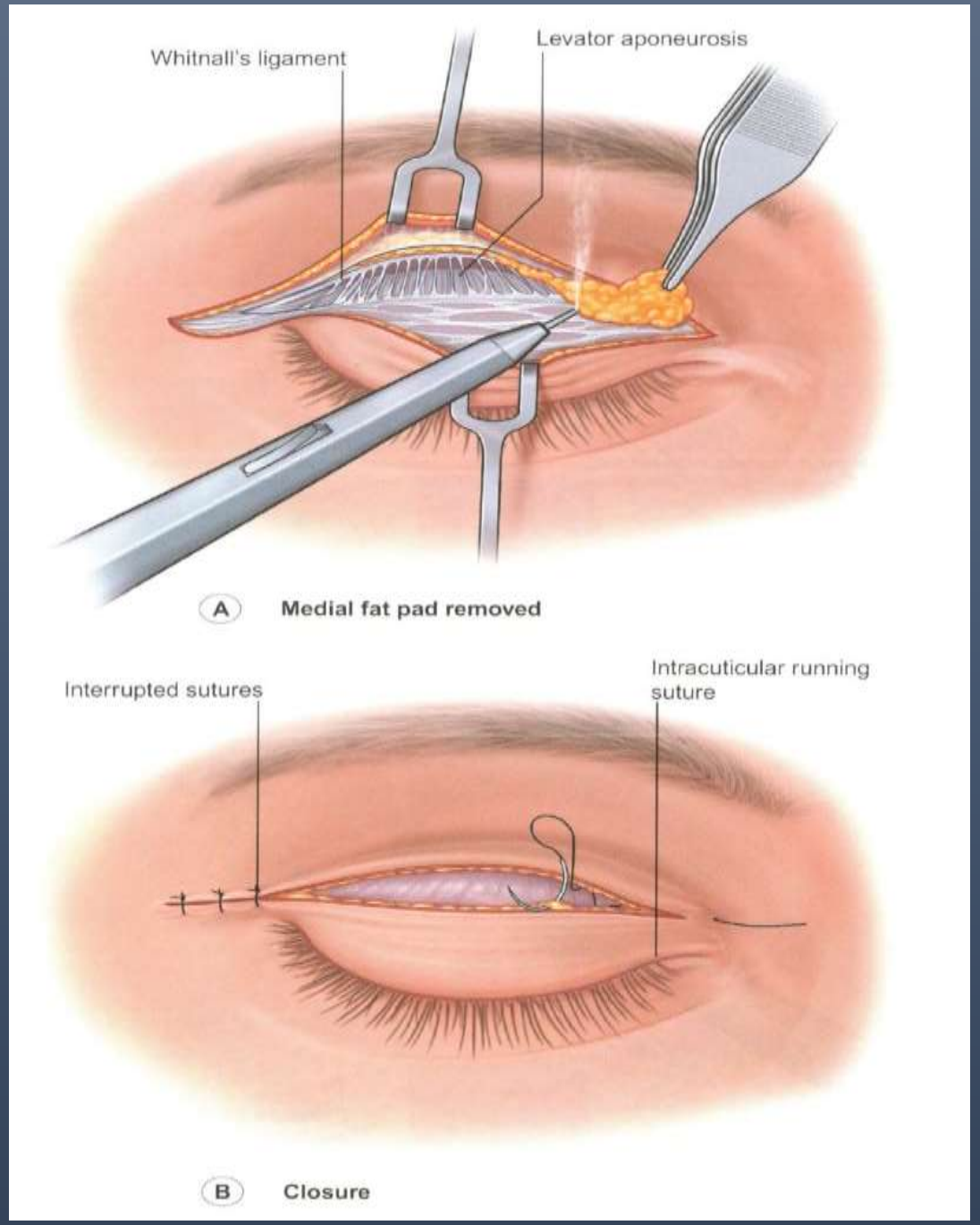



A
B
C
D

Simple skin blepharoplasty

- Preserving orbicularis muscle and preaponeurotic fat has been shown to enhance aesthetic outcomes.
- When skin-only excision is elected, it should occur above the supratarsal fold or crease, leaving that structure intact.
- The shape of the skin resection is lenticular in younger patients and more trapezoid-shaped laterally in older patients.
- Extension lateral to the orbital rim should be avoided if possible, to prevent a prominent scar
- The medial markings should not be extended medial to the medial canthus because extensions onto the nasal side wall result in webbing.
- At the conclusion of the case, the patient should have approximately 1- 2 mm of lagophthalmos bilaterally

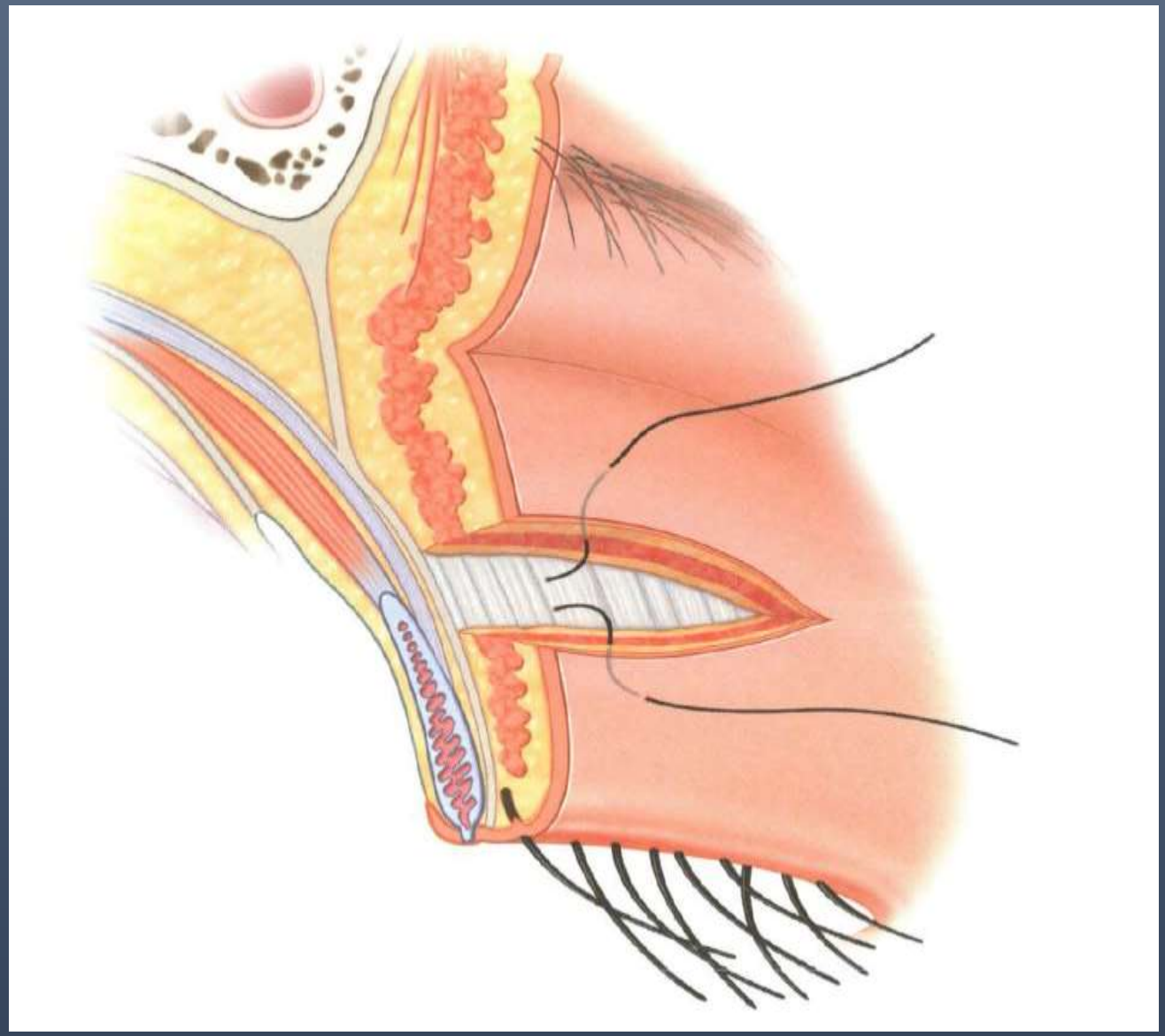
(A) The medial fat pad may require digital pressure to expose and grasp; however, care should be taken not to overly resect fat when using digital pressure techniques. (B) Closure may then be performed with a combination of interrupted and running intracuticular sutures.



Anchor (or invagination blepharoplasty)

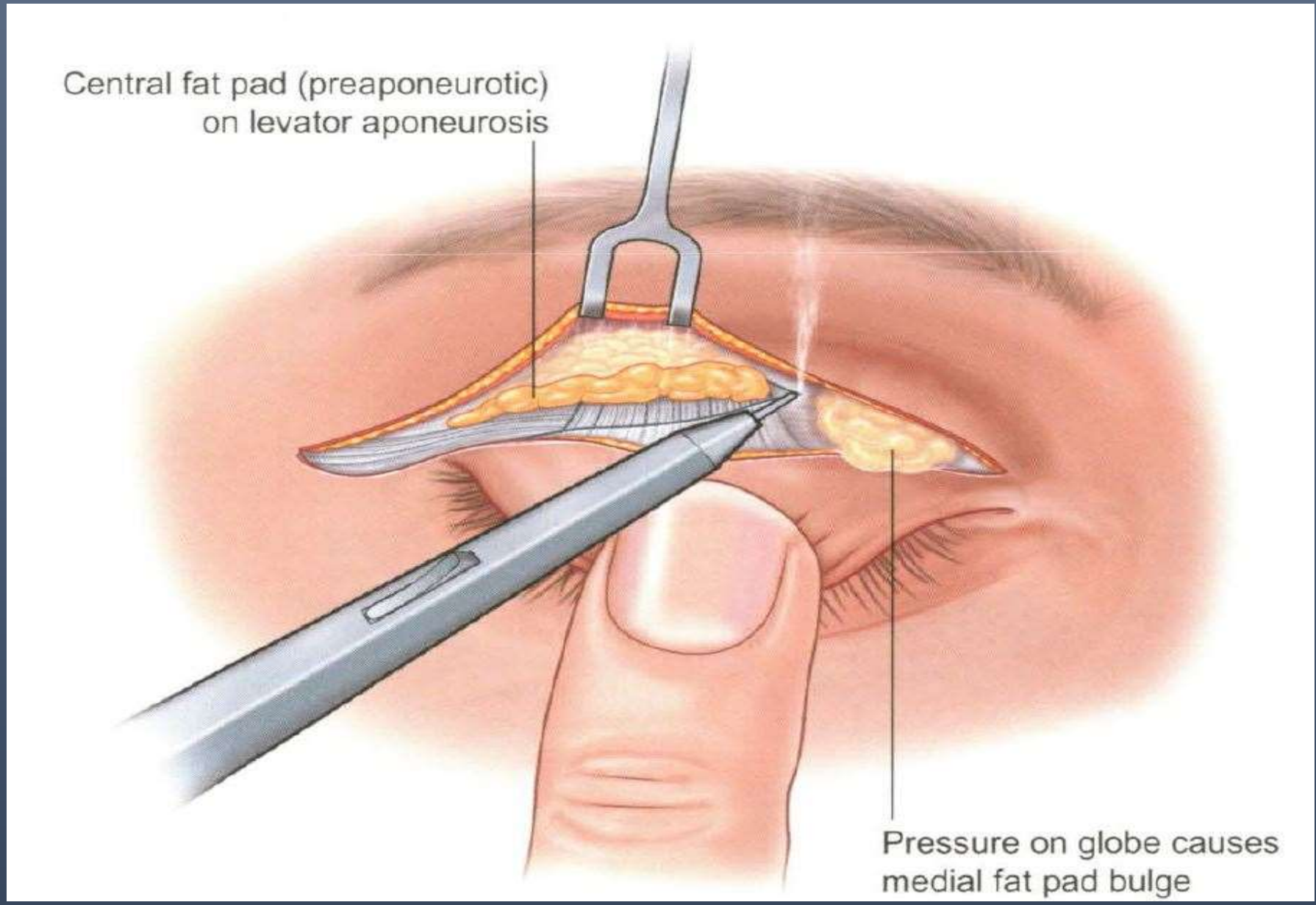
- Anchor blepharoplasty involves the creation of an upper eyelid crease by attaching pretarsal skin to the underlying aponeurosis.
- The advantage of an anchor blepharoplasty is a crisp, precise, and well-defined eyelid crease that persists indefinitely
- Such lids are more desirable in women than in men because they tend to glamorize the orbital region.
- Disadvantage is that it is more time-consuming, requires greater surgical skills and expertise
- Key components of the anchor blepharoplasty include minimal skin excision

Anchor blepharoplasty technique. Attaching the dermis of the pretarsal skin flap to the superior aspect of the tarsus and to the free edge of the aponeurosis

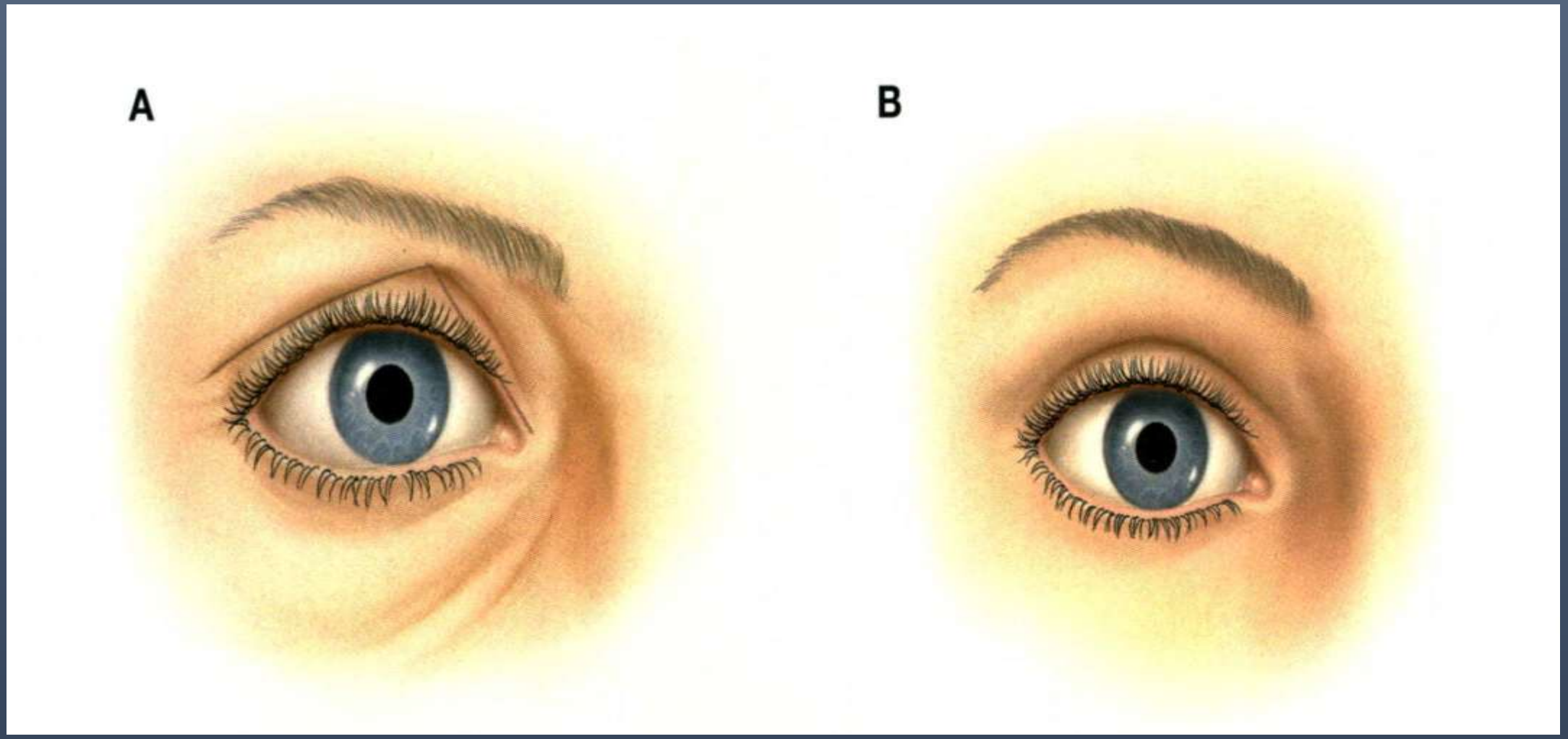


Orbital fat excision

- A relative excess of retroseptal fat may be safely excised through an upper eyelid blepharoplasty incision.
- A small septotomy is made at the superior aspect of the skin excision into each fat compartment in which conservative resection of redundant fat has been planned.
- The fat is teased out bluntly and resected using pinpoint cautery. This fat usually includes the medial or nasal compartment, which contains ***white fat***.
- ***Yellow fat*** in the central compartment is usually more superficial and lateral.
- Gentle pressure on the patient's globe can reproduce the degree of excess while the patient lies recumbent on the operating room table .
- Undercorrection is preferred to prevent hollowing, which can be dramatic and recognized as an A-frame abnormality.


Central fat pad (preaponeurotic)
on levator aponeurosis
Pressure on globe causes
medial fat pad bulge

A, A-frame deformity: peaking and distortion of the upper lid crease as a result of aggressive fatremoval. **B,** Postoperatively, the upper lid crease should have a concentric curvature.



Lower lid blepharoplasty

Transconjunctival blepharoplasty

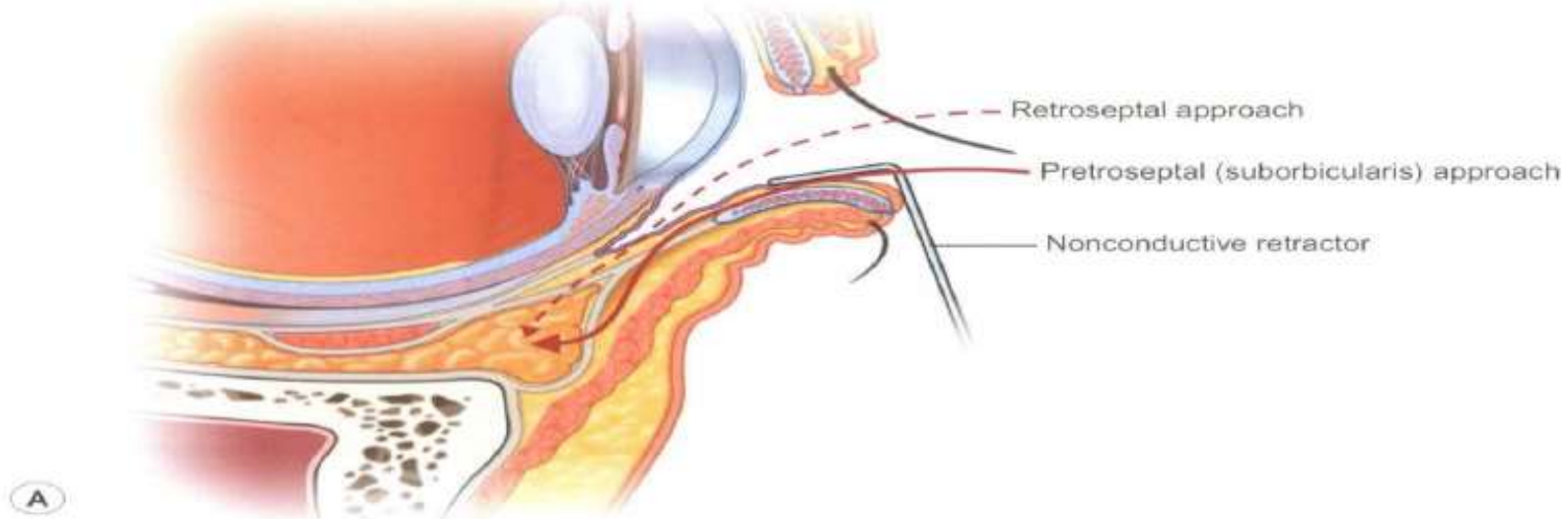
- the preferred procedure for fat reduction in patients without excess skin and with good canthal position.
- Less likely to lead to lower lid malposition than is a transcutaneous approach.
- The conjunctival incision is made with a monopolar cautery needle tip at least 4 mm below the inferior border of the tarsus- ***never through the tarsus***
- **preseptal approach :**

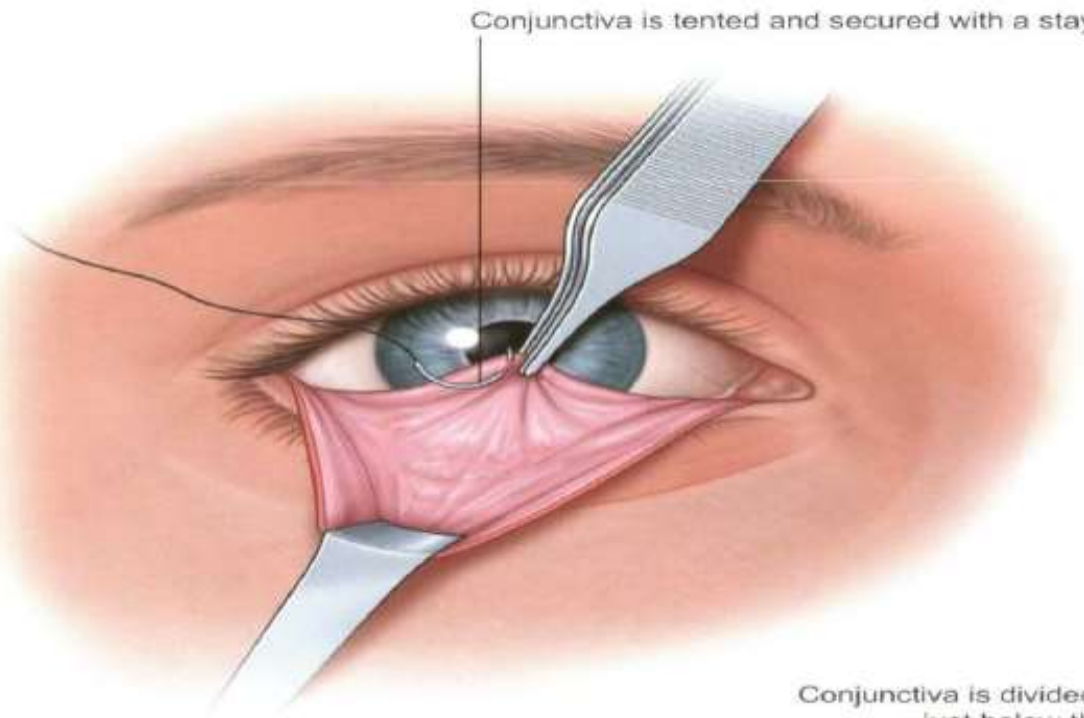
➢ obtained by entering the conjunctiva above the level of septal attachment to the capsulopalpebral fascia.

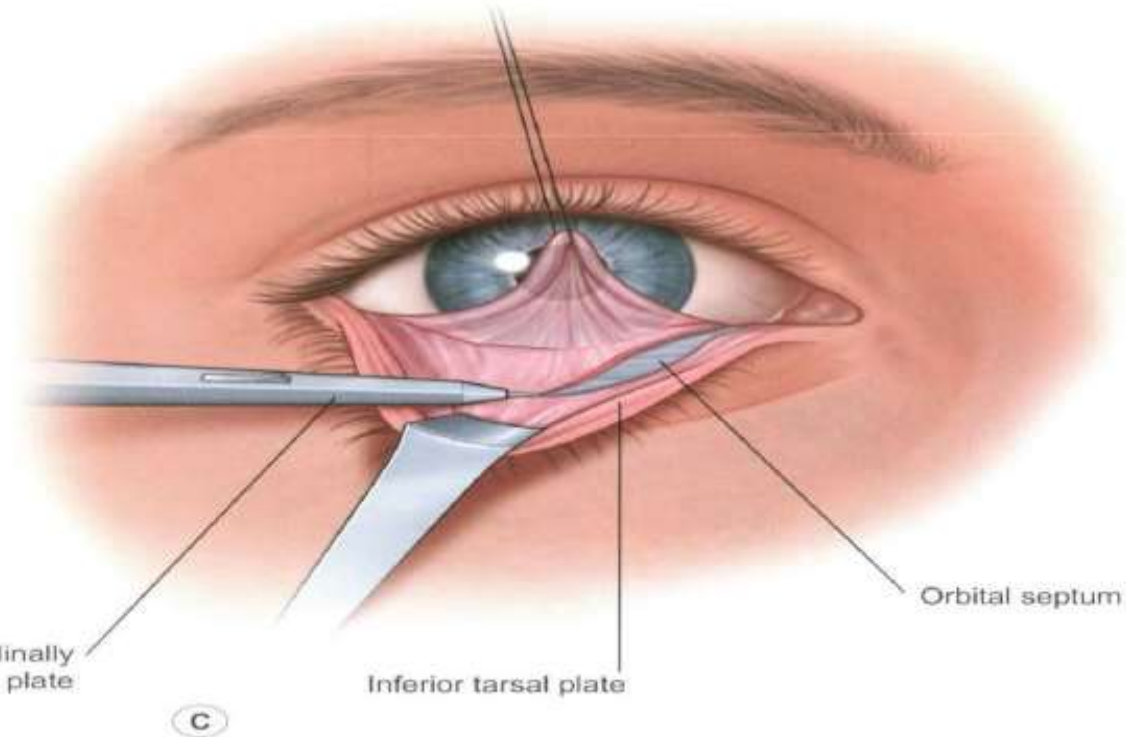
- **retroseptal approach :**

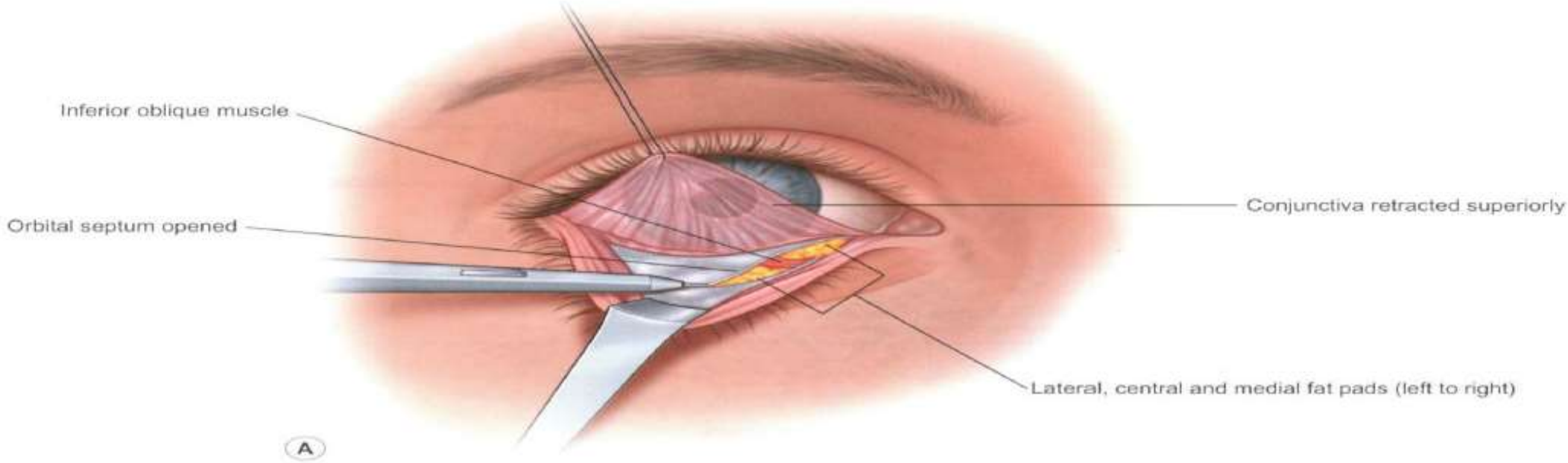
➢ 1.5-2 cm incision lower down in the fornix

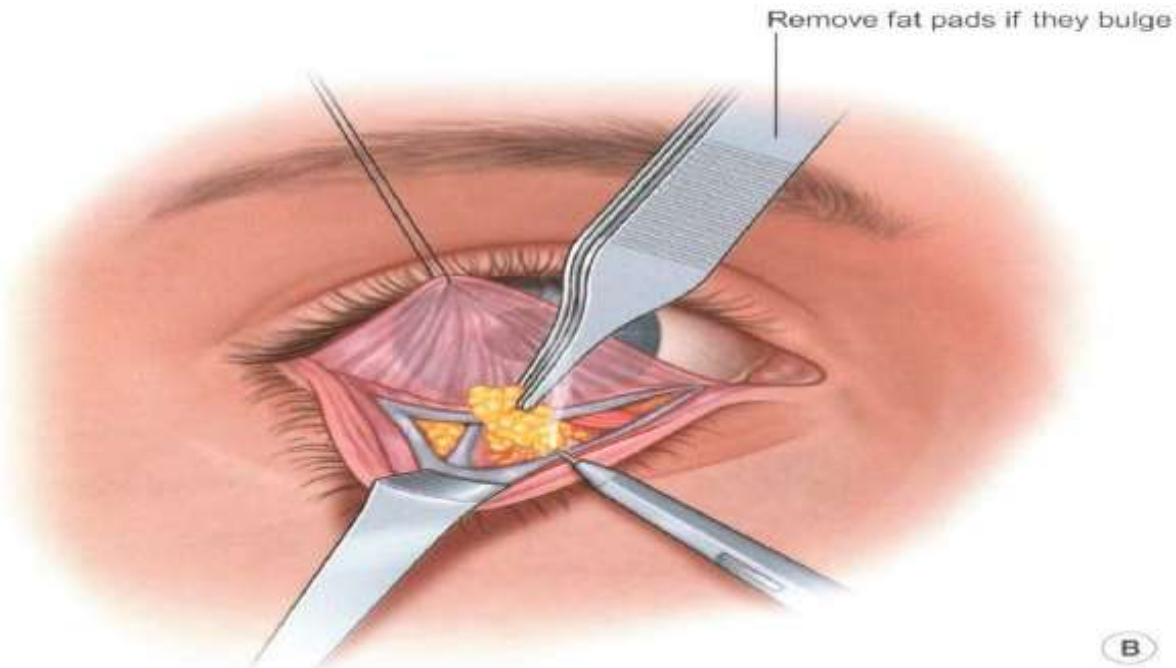
- There are differences of opinion about whether to leave the transconjunctival incision open or to close it; however, it is preferable to leave it open.

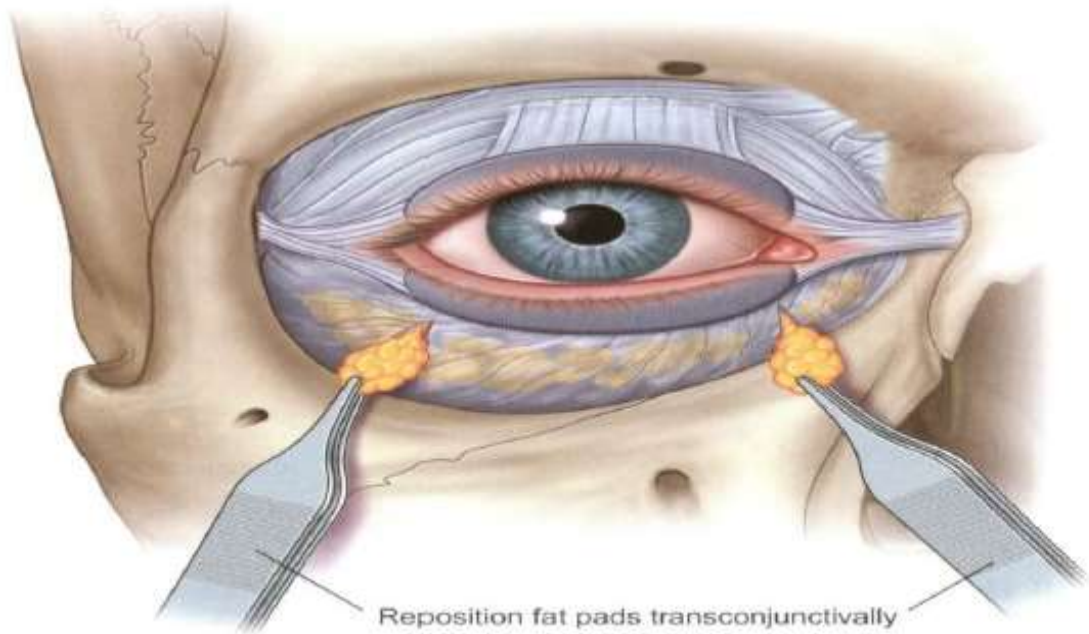

Retroseptal approach
Pretroseptal (suborbicularis) approach
Nonconductive retractor
A


Conjunctiva is tented and secured with a stay suture
B


Conjunctiva is divided longitudinally
just below the tartsal plate
Inferior tarsal plate
Orbital septum
C

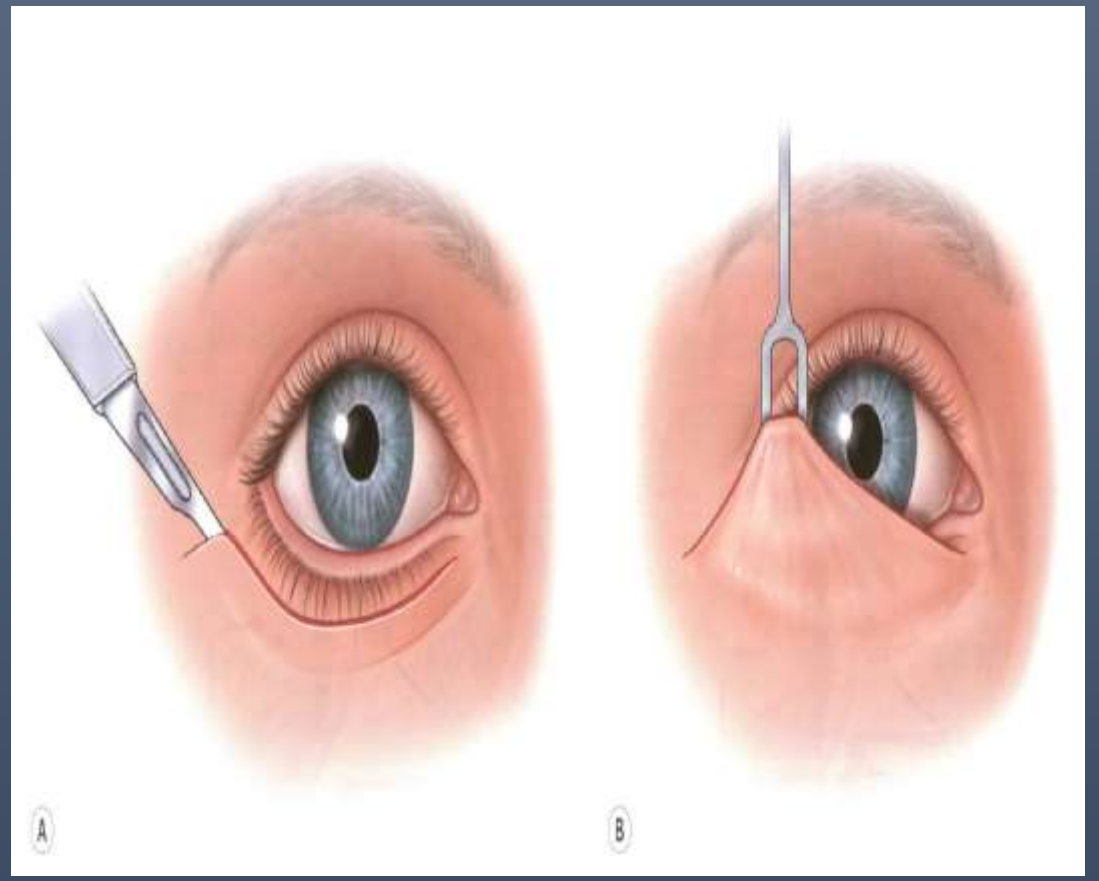

Inferior oblique muscle
Orbital septum opened
Conjunctiva retracted superiorly
Lateral, central and medial fat pads (left to right)
A


Remove fat pads if they bulge
B

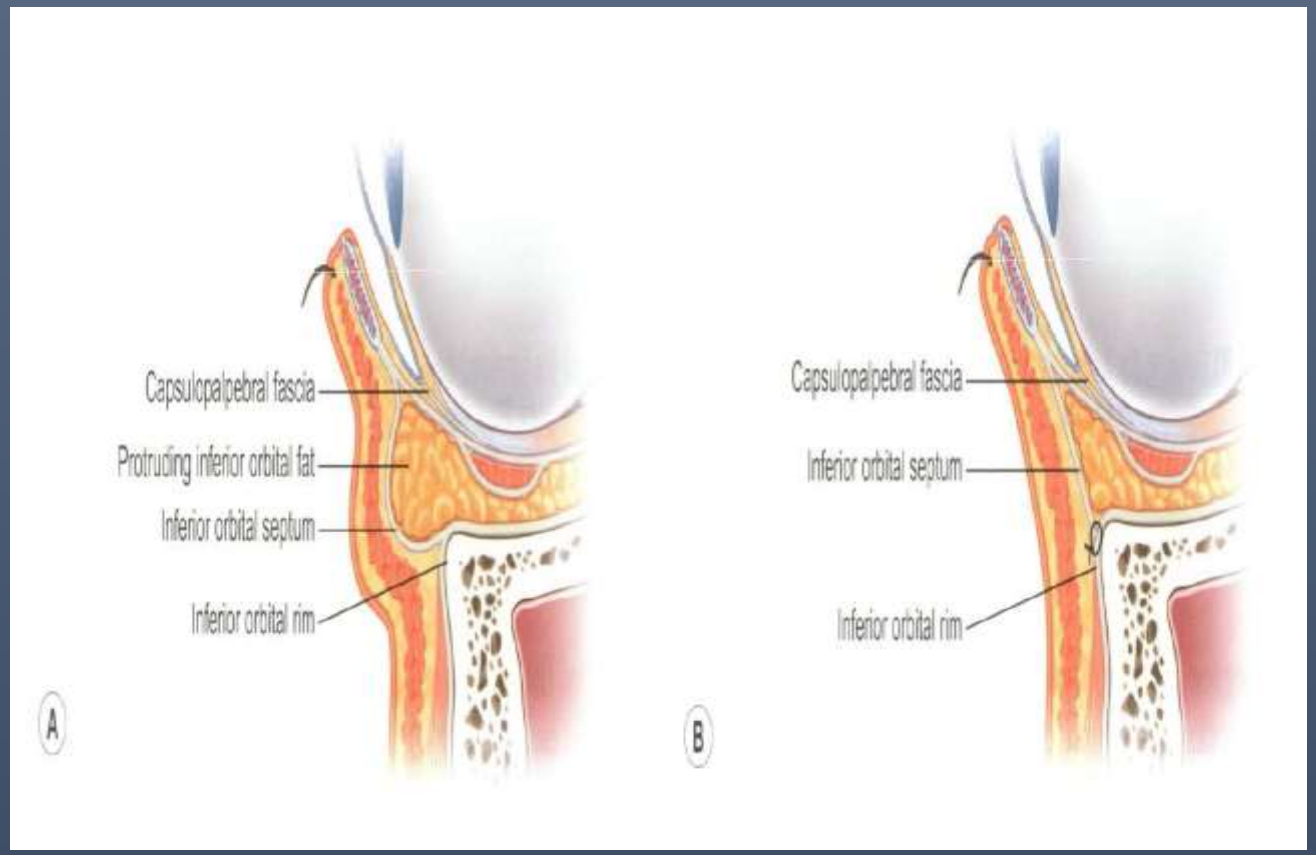

Reposition fat pads transconjunctivally

Transcutaneous blepharoplasty

- A subciliary incision can be used to develop a skin flap or askin-muscle flap.
- With either method, pretarsal orbicularis fibers should remain intact.
- Periorbital fat can be excised through small incisions in the septum
- The fat can also be retropositioned using capsulopalpebral fascia placation, or it can be transferred into the naso-jugular fold.
- Orbicularis muscle fibers and skin can be excised at closure.
- care must be taken with muscle excision, which canlead to orbicularis denervation and lid malposition.



- Orbital fat transposition
- Orbital septum plication(only the inferior orbital septum is plicated and sutured to the inferior orbital rim).



Postoperative care

- All patients are advised to expect swelling, bruising, some degree of ptosis, and tugging sensation on gazing upward.
- patients generally look presentable approximately 2-3 weeks after surgery.
- In lower lid blepharoplasty when no canthopexy is performed, half-inch Steri-Strips, retracted the lid superiorly.
- Alternatively, a Frost suture placed in the lower lid margin and fixed to the brow suspends the lid during early healing.
- ***The best support during healing is a secure extended canthopexy***.[45]

Complications

- ***The most common complication after blepharoplasty Ichemosis.***
- **Asymmetry**

➢ Patients should be advised that no reoperations are indicated before 8 weeks, and then only if the lids have stabilized and no edema or bruising is seen. involved, incidence increases significantly to 10- 30%.[45]

- ***Retrobulbar hemorrhage is the most feared complication ofeyelid surgery***

➢ Any complaint of severe orbital pain needs to be examined immediately, especially that of sudden onset.

➢ Acute management involves immediate evaluation, urgent ophthalmologic consultation and a return to the operation for evacuation of the hematoma.

➢ Medical treatments, in addition to operative exploration, include administration of high flow oxygen, topical and systemic corticosteroids and mannitol.

➢ Acute loss of vision mandates bedside suture removal and decompressive lateral canthotomy.

➢ Hospitalization with head elevation and close observation may be necessary to supplement the described measures.

- ***Peribulbar hematom***

➢ does not threaten vision.

➢ It usually results from bleeding of an orbicularis muscle vessel.

➢ Small hematomas may resolve spontaneously, though larger hematomas can be evacuated in the office

- ***Dry eye symptoms***
- ***lower lid malposition,***
- ***lagophthalmos***
- ***Undercorrection***
- ***Ptosis***

➢ ***all require careful observation and photographic documentation.***

➢ ***Reoperation should be performed no earlierthan 3 months later.***

Male blepharoplasty

- blepharoplasty is the second most common cosmetic surgery performed on male patients.
- Men tend to seek out blepharoplasty more for functional reasons than women
- A more natural look is preferred, and the "operated look" will not be tolerated well by most male patients.
- Men typically do not use cosmetics, so all scars must be carefully concealed. This also makes male patients suboptimal candidates for laser resurfacing.
- The lateral incision should rarely be extended beyond the later orbital rim.
- In men with heavy brows, resection of upper eyelid skin only will result in profoundly ptotic brows. Therefore, one should consider combined brow surgery with upper blepharoplasty.