

# Eye on Aesthetics

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## Disclosures

Beata I Lewandowska, OD, MS, Dan Georgescu, MD, PhD, and Aliza Epstein, MD, have no relevant financial relationship(s) with ineligible companies to disclose.

## Learning objectives

By the end of this presentation, participants will be able to:

1. Identify common patient aesthetic concerns that can be treated in an optometric setting.
2. Describe various non-invasive aesthetic procedures relevant to periorbital and facial aesthetics.
3. Discuss the benefits and considerations of integrating aesthetic services into an optometry practice.
4. Recognize appropriate patient selection criteria and referral pathways for advanced aesthetic treatments.

## Aesthetic optometry & ocular aesthetics

- an emerging branch of optometry focused on enhancing a person's image through elective non-surgical cosmetic treatments to improve the appearance of the eyes and surrounding tissues
- evaluation
  - technology
- education
  - doctor
  - staff
  - patient
- treatment options
  - technology
- co-management with oculoplastics
- legal aspects
  - informed consent
  - state regulations
  - malpractice insurance

## Human skin

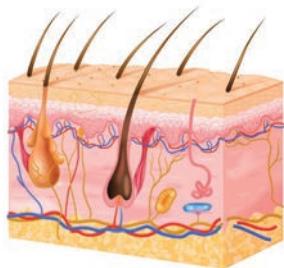
Average depth 0.5 to 2 mm on the face

Epidermis - 5 layers

- the stratum basale
- the stratum spinosum
- the stratum granulosum
- the stratum lucidum
- the stratum corneum

Basal cells continually replicate and replace the other cells of the epidermis

Replaces itself every 28 to 42 days



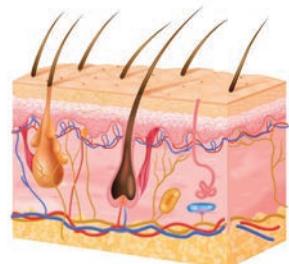
## Human skin

Dermis

- collagen, elastic tissue, and other extracellular components that include vasculature, nerve endings, hair follicles, and glands
- **fibroblasts** are the primary cells in this layer that produce **collagen**

Hypodermis

- provides structural and nutritional support for the overlying epidermis



## Aging

- development of wrinkles, loss of elasticity, thinning, and changes in pigmentation
- loss of fat pads around eyes, cheeks, temples
- changes in skin texture and uneven pigmentation
- sagging and drooping of the skin
- thinning of skin making blood vessels more visible
- decreased ability of the skin to retain moisture
- intrinsic factors: **decrease in collagen and elastin**
- extrinsic factors: sun exposure, smoking, genetics
  - UVA causes the oxidative stress associated with aging and will break down collagen
  - UVB increases melanin in the epidermis



## Common aesthetic concerns

- red eyes
- swollen or puffy eyelids
- crusty lashes
- watery eyes
- visible blood vessels/telangiectasia
- fine lines
- wrinkles
- lid laxity



## Non-surgical treatments

### Eye redness

**brimonidine tartrate** 0.025% ophthalmic solution

- OTC redness reliever by **vasoconstriction**
- highly selective alpha2-adrenoceptor agonist
- works within 60 seconds and lasts up to 8 hours
- for patients 5 years old and older
- available BAK-preserved and preservative-free
- contraindicated in patients allergic to brimonidine
- side effects include blurred vision, burning, stinging, or itching, dry mouth, headache, tiredness or drowsiness, foreign body sensation



## Eye redness

### Thermal technologies

- in combination with meibomian gland expression target **obstructive meibomian gland dysfunction**, which is the most common type of MGD
- direct heat transfer

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**Lipiflow for the treatment of dry eye disease: A Cochrane systematic review summary**

By Wang Yee<sup>1</sup> · Andrew D. Parker<sup>2,3</sup> · Eric Knobf<sup>4</sup> · William Ngai<sup>5</sup> · Anna A. Tchernow<sup>6</sup> · John E. Corlett<sup>7</sup>  
Affiliations & Notes | Article info |

**Abstract**

**Purpose**  
To evaluate the effectiveness and the safety of Lipiflow for treating signs and symptoms of dry eye disease (DED) in adults.

**Methods**  
The following databases were searched for randomised trials: CENTRAL, MEDLINE, Ovid, Embase.com, PubMed, Lilacs, ClinicalTrials.gov, and WHO ICTRP on 24 October 2020. The included studies were conducted in adults (≥18 years) with DED or meibomian gland dysfunction (MGD) as defined by the investigators. Standard Cochrane methodology was applied.

**Results**  
This study included 23 trials that randomised a total of 1,255 participants (56% female, age range = 19 to 88 years). Five trials compared Lipiflow with basic warm compresses. Analysing symptom scores, trials provided evidence of a difference in improvement in symptoms, tear volume, and eyelid opening after 4 weeks. There was evidence of a difference in meibomian gland expression, meibum quality, or tear breakup time when comparing Lipiflow with basic warm compresses. Another 6 trials compared Lipiflow with therapeutic devices. Analysis of symptom scores in these trials at 4 weeks showed that therapeutic devices had a greater improvement than basic warm compresses. The evidence of a difference in improvement of symptoms with Lipiflow in the remaining 11 included trials could not be grouped for comparison. The overall evidence was of low or very low certainty, with most trials being assessed as having a high risk of bias. No trial reported any intervention-related, vision-threatening adverse events.

**Conclusions**  
Lipiflow performs similarly to other DED treatments. Further research with adequate masking and a standardised testing methodology is still needed.

## Eye redness, skin discoloration, telangiectasia

### Intense pulsed light (IPL) therapy

- non-surgical
- non collimated, polychromatic, and noncoherent
- for Fitzpatrick skin types I to IV
- efficacious for the treatment of telangiectasia, wrinkles, erythema, texture, lentigines, and hyperpigmentation
- DED, MGD, ocular rosacea

## Fine lines and dark circles

### Radio frequency (RF)

- electromagnetic energy in non-ionizing waves
- delivers targeted thermal energy (controlled heat) to the deeper layers of the skin (**dermis**), stimulating collagen and elastin production
- thermal "injury" stimulates neocollagenesis and neoelastinogenesis to produce new collagen and elastin
- existing collagen fibers in the skin contract and tighten in response to the heat enhancing skin elasticity
- a noticeable reduction in the depth and appearance of wrinkles and fine lines, as well as an overall improvement in skin texture and laxity
- requires several treatments

## Fine lines and dark circles

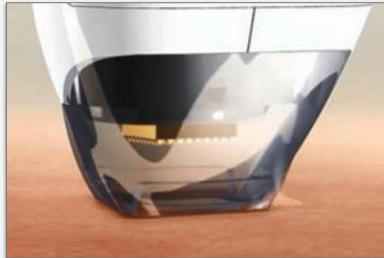
### Photobiomodulation / Low-level light therapy (LLLT)

- increase production of procollagen, collagen, basic fibroblast growth factors, and proliferation of fibroblasts
- tissue inhibitors of metalloproteinases are elevated post-treatment and likely protect newly synthesized collagen from proteolytic degradation of matrix metalloproteinases
- cytochrome C oxidase(CCO) is an enzyme located in the mitochondria of cells that acts as a chromophore for red and near-infrared light; absorption of this light energy by CCO enhances enzymatic activity, mitochondrial respiration, and adenosine triphosphate production
  - blue light (440 nm) penetrates skin 0.3 to 0.5 mm
  - red light (650 nm) penetrates skin 1-2 mm
  - infrared light (750 nm) penetrates skin 2-3 mm

## Fine lines and dark circles

### Fractional skin rejuvenation

- non-invasive, thermo mechanical
- uses titanium tips to transfer thermal energy to the skin's surface through brief contact
- the heating stimulates collagen production, improves fine lines and wrinkles, and helps with skin elasticity around the eyes
- can also help with dark circles and puffiness



## Droopy eyelids

### oxymetazoline hydrochloride 0.1% ophthalmic solution

- FDA-indicated for the treatment of acquired blepharoptosis in adults (over 13 years old)
- one drop into the affected eye daily
- an alpha adrenoceptor agonist targeting a subset of adrenoreceptors in the **Müller muscle** of the eyelid
- the maximum increase (1-2 mm) in MRD-1 was observed approximately 2 hours post dose
- the MRD-1 increase continued through 8 hours post dose
- no contraindications
- the most common adverse reactions (incidence 1-5%) are: punctate keratitis, conjunctival hyperemia, dry eye, blurred vision, instillation site pain, eye irritation, and headache
- supplied in a carton of 30 or 45 single patient-use containers in individual child-resistant foil pouches

## Droopy eyelids

### oxymetazoline hydrochloride 0.1% ophthalmic solution

- warnings & precautions:
  - 1) Ptosis may be associated with neurologic or orbital diseases such as stroke and/or cerebral aneurysm, Horner syndrome, myasthenia gravis, external ophthalmoplegia, orbital infection, and orbital masses. **Consideration should be given to these conditions in the presence of ptosis with decreased levator muscle function and/or other neurologic signs.**
  - 2) Alpha-adrenergic agonists as a class may impact blood pressure. Advise patients with cardiovascular disease, orthostatic hypotension, and/or uncontrolled hypertension or hypotension to seek medical care if their condition worsens.
  - 3) Use with caution in patients with cerebral or coronary insufficiency or Sjögren's syndrome, and advise patients to seek medical care if signs and symptoms of potentiation of vascular insufficiency develop.
  - 4) Advise patients to seek immediate medical care if pain, redness, blurred vision, and photophobia occur (signs and symptoms of acute angle closure).
  - 5) **Caution is advised in patients taking MAO inhibitors** which can affect the metabolism and uptake of circulating amines.
- wait 15 minutes before applying contact lenses or other ophthalmic medications

## Droopy eyelids

### Plasma pen

- uses plasma energy to create controlled micro-injuries
- developed to tighten and lift the eyelids and to reduce wrinkles and fine lines around the eyes
- allows a punctal, precise sublimation of epidermal and superficial dermal layers, causing a skin retraction without the appearance of severe adverse events



## Droopy eyelids

### Plasma pen

- based on a voltage difference between the device and the subject's skin, a small electrical arc (a lightning of short duration) is generated when it just reaches the surface of application, from a distance of 1 mm
- through this electrical signal, a sublimation of the fluids contained in the superficial epidermal layer is generated, without affecting deeper layers
- from a histopathological aspect, it has been proven that the generated spots respect the basal membrane of the skin, without penetrating it
- clinical studies confirm that one month later, collagen type III is formed, supporting the structural mechanics of skin. This observation supports the fact that plasma exeresis leads to a desired skin lifting and retraction through quick wound healing.

## Droopy eyelids

### Plasma pen

#### Candidates:

- **skin Type I-III** (redheads, fair-skinned, and darker Caucasian skin)
- sagging eyelids
- wrinkly under-eye skin

## Droopy eyelids

### Dynamic Muscle Stimulation technology (DMSt)

- targets lower lid laxity and impaired blinking
- activate facial muscles with electrical impulses, tightening and toning the periorbital muscle and enhancing overall facial firmness to minimize sagging
- a technology using gentle electrical impulses (low intensity electrical currents) to trigger muscle contractions, enhancing tone, circulation, and function for aesthetic lifting and therapeutic relief
- 4 treatments at 1-week intervals:
  - improved lid apposition to the globe
  - stronger blink closure
  - measurable increases in tear film stability and meibomian gland function

## Thinning eyelashes

### bimatoprost 0.03% ophthalmic solution (2008)

- 3 ml bottle with 70 disposable applicators or 5 ml bottle with 140 disposable applicators
- prostaglandin analog
- indicated to treat **hypotrichosis** of the eyelashes by increasing their growth, including length, thickness, and darkness
- this phenomenon is believed to occur due to the interaction of prostaglandin and prostamide analogues with the prostanoid receptors found in hair follicles
- at week 16, patients had an average of 1.4 mm growth in length (25 percent increase) and a 106% increase in fullness and thickness

## Thinning eyelashes

### bimatoprost 0.03% ophthalmic solution (2008)

- concurrent administration of bimatoprost and IOP-lowering prostaglandin analogs in ocular hypertensive patients may decrease the IOP-lowering effect. Patients using these products concomitantly should be closely monitored for changes to their IOP.
- pigmentation of the eyelids and iris may occur
- iris pigmentation is likely to be permanent
- most common adverse reactions (incidence approximately 3% to 4%) are eye pruritus, conjunctival hyperemia, and skin hyperpigmentation

## Thinning eyelashes

Lash-enhancing serums to promote fuller, longer, and darker eyelashes

- **isopropyl cloprostenate** is a synthetic prostaglandin analog commonly found in over-the-counter eyelash growth serums



## Unwanted eyelid lesions

### Chalazia

- painless granuloma inside a meibomian gland
- sterile chronic lipogranulomatous inflammatory process
- treatment options include:
  - heat therapy
  - IPL
  - LLLT
  - intralesional triamcinolone acetonide injection
  - incision and curettage

## Colored contact lenses

- medical devices
- wear increases the risk of corneal ulceration
- with or without correction of refractive error
  - enhancement tints
  - opaque tints
  - limbal rings
  - ocular prosthetic to mask disfigurement



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Benefits and considerations of integrating aesthetic services into an optometry practice:

- Competitive differentiation
- Increased patient acquisition and retention
- Enhanced patient care and clinical outcomes
- Diversified revenue streams

## Ocular aesthetics & your practice

## Advanced surgical treatments

## Neuromodulators

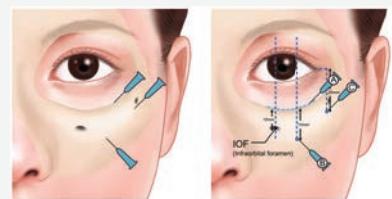
Injectable neurotoxins can effectively smooth dynamic wrinkles and fine lines around the eyes and may aid in the treatment of blepharospasm:

- onabotulinumtoxinA
- abobotulinumtoxinA
- incobotulinumtoxinA



## Dermal fillers

Periorcular hyaluronic acid dermal fillers restore volume to the tear troughs and periorbital areas, addressing age-related volume loss.



Hong G-W, Choi W, Yoon S-E, Wan J, Yi K-H. Anatomical-Based Filler Injection Diagnosis to Treatment Techniques: Infrabrowal Groove and Hollowness. *Life*. 2025; 15(2):237. <https://doi.org/10.3390/life15020237>

## Hybrid Fat Transposition & Pearls for Peri-Ocular Rejuvenation



UPTOWN CLINIQUE  
OCULOPLASTICS & FACIAL COSMETIC SURGERY

Dan Georgescu, MD, PhD  
Fort Lauderdale

No Financial Disclosures



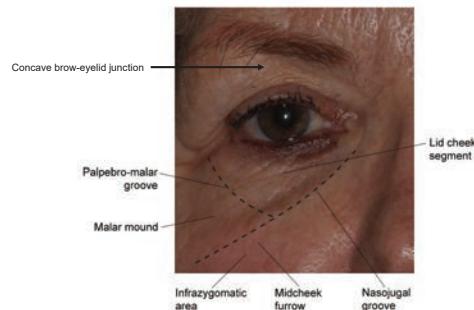
@drdangeorgesc  
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### The Process of Facial Aging



- Deflation
- Deflation
- Deflation
- Laxity
- Texture

### Peri-ocular Aging



Georgescu, 2019

### Transposition

Minimal volume improvement in the lateral half where the brow-eyelid junction remains concave

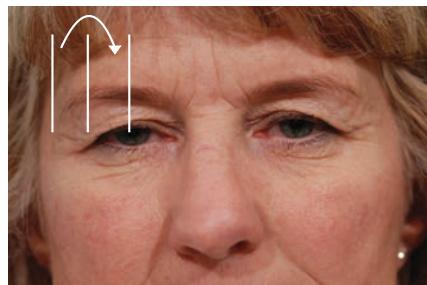
Before



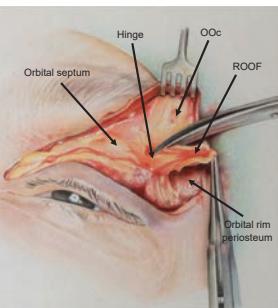
After



### The Lateral SOOF Flap



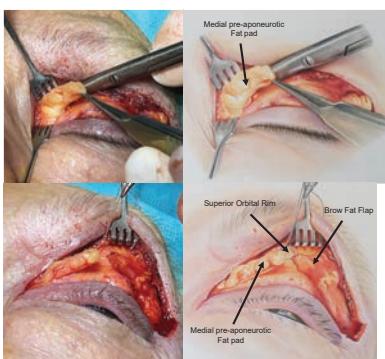
The Lateral SOOF Flap



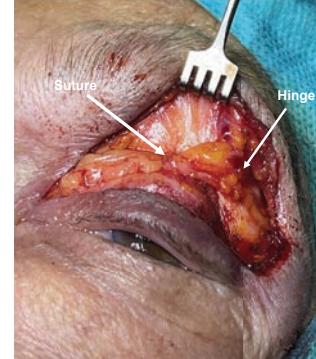
The Lateral SOOF Flap



The Lateral SOOF Flap



The Lateral SOOF Flap



The Lateral SOOF Flap



*Before*



*After*



The Lateral SOOF Flap



The Lateral SOOF Flap



*Before*



*After*



*Before*



*After*



The Lateral SOOF Flap



The Brow Fat Flap



*Before*



*After*



*Before*



*After*



The Lateral SOOF Flap



The Lateral SOOF Flap



*Before*



*After*



*Before*



*After*



The Lateral SOOF Flap



*Before*



*After*



Readily Available Fat During 4-lid Bleph



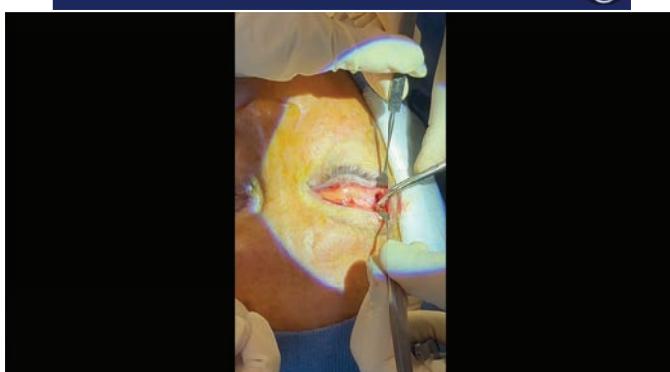
Readily Available Fat During 4-lid Bleph



Readily Available Fat During 4-lid Bleph



Lower Eyelid to Brow Pearl Transfer



Lateral Brow Fat Pearls



Lateral Brow Fat Pearls



Lateral Brow Fat Pearls



*Before*



*After*



*Before*



*After*



Lateral Brow Fat Pearls



Lateral Brow Fat Pearls



*Before*



*After*



*Before*



*After*



Lateral Brow Fat Pearls



Lower Eyelid Bags



*Before*



*After*



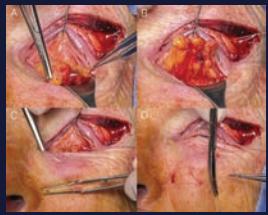
## Fat Transposition Blepharoplasty

### Advantages

- Uses local excess fat to fill in the deficit underneath
- Fast, effective
- No fat atrophy
- Barbed suture anchoring obviates the need for bolsters and increases pt comfort

### Disadvantages

- The fat flap can leave a step-off at the eyelid-cheek junction = too much volume in the cheek compared to the eyelid



Single Barbed Suture Fat Pedicle Fixation for Fat Transposition  
Lower Blepharoplasty, Georgescu et al, 2024

## Barbed Suture Fat Anchoring



## Fat Transposition Blepharoplasty



## Fat Transposition Blepharoplasty



*Before*



*After*



*Before*



*After*

## Fat Pearl Blepharoplasty

### Advantages

- Easy harvesting
- Minimal fat manipulation/processing
- Excellent for fat redistribution above the eyelid-cheek junction

### Disadvantages

- Fat placement down in the cheek for cheek-volume enhancement is difficult and has little impact

## Hybrid Fat Transposition + Pearls



Hybrid Fat Transposition + Pearls



Before



After



Hybrid Fat Transposition + Pearls



## Eyelid Lift

Before



After



Hybrid Fat Transposition + Pearls



## Eyelid Lift

Before



After



Hybrid Fat Transposition + Pearls



## Eyelid Lift

Before



After



Hybrid Fat Transposition + Pearls



## Eyelid Lift

Before



After



Hybrid Fat Transposition + Pearls



## Eyelid Lift

Before



After



## Hybrid Fat Transposition + Pearls



### Lower Eyelid Lift

Before



After



## Conclusion

- *Fat transposition upper and lower blepharoplasty and eyelid pearls* are effective procedures that can be combined for periocular rejuvenation.
- Barbed suture pedicle fat transposition below the eyelid-cheek junction enhances cheek volume
- The addition of fat pearls above the transposed fat flap further improves the eyelid-cheek transition by bringing the eyelid at the same level with the cheek.
- Fat pearls of SOOF transposition to the lateral brow improves the upper eyelids-brow junction

## Oculofacial Plastic Surgery



### Lower Face and Neck-Lift

Before



After



## Lower Face and Neck-Lift



### Facelift

Before



After



### Lower Face and Neck-Lift



### Facelift

Before



After



Lower Face and Neck-Lift



Fac  
elift

Before



After



Lower Face and Neck-Lift



Fac  
elift

Before



After



Lower Face and Neck-Lift



Fac  
elift

Before



After



Lower Face and Neck-Lift



Fac  
elift

Before



After



Lower Face and Neck-Lift



Fac  
elift

Before



After



Lower Face and Neck-Lift



Fac  
elift

Before



After



### Lower Face and Neck-Lift



#### Fac elift

Before



After



### Lower Face and Neck-Lift



Before **Elite** After



### Lower Face and Neck-Lift



Before

**Elite**

After



### Lower Face and Neck-Lift



Before **Elite** After



### Lower Face and Neck-Lift



Before

**Elite**

After



### Lower Face and Neck-Lift



Before **Elite** After



## Lower Face and Neck-Lift



Before

After



## References

- Park JM and Kim JH. Simple Internal Fixation Method Using Barbed Thread for Transconjunctival Orbital Fat Repositioning. *Facial Plastic Surgery & Aesthetic Medicine*. 2020;22(2):112-113
- Transconjunctival lower lid blepharoplasty with and without fat repositioning. Davison SP, Irie M, Oh C. *Clin Plast Surg*. 2015 Jan;42(1):51-6. doi: 10.1016/j.cps.2014.09.001. Review
- Lower Eyelid Blepharoplasty. Branham GH. *Facial Plast Surg Clin North Am*. 2016 May;24(2):129-38. doi: 10.1016/j.fsc.2015.12.004. Review
- The Effect of Transconjunctival Blepharoplasty on Margin Reflex Distance 2. Segal KL, Patel P, Levine B, Lisman RD, Lelli GJ Jr. *Aesthetic Plast Surg*. 2016 Feb;40(1):13-8.
- Tear trough deformity: review of anatomy and treatment options. Stutman RI, Codner MA. *Aesthet Surg J*. 2012 May;32(4):426-40.
- Fat repositioning in lower blepharoplasty to maintain infraorbital rim contour. Goldberg RA, Edelstein C, Shorr N. *Facial Plast Surg*. 1999;15(3):225-9. *Free autogenous "pearl fat" grafts to the eyelids*. Shorr N, Christenbury JD, Goldberg RA. *Ophthalmic Plast Reconstr Surg*. 1988;4(1):37-40.

THANK YOU



UPTOWN CLINIQUE

OCULOPLASTICS & FACIAL COSMETIC SURGERY

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## Questions?



@DRDANGEORGESCU

UPTOWN CLINIQUE  
OCULOPLASTICS & FACIAL COSMETIC SURGERY



@drdangeorgescu



## Upper Face Rejuvenation

Aliza Epstein, MD, FACS  
Oculofacial Plastic Surgeon  
Fort Lauderdale Eye Institute

BCOA Conference January 2026

## Case 1

- 66 year old woman presents with complaints of "droopy upper eyelids." She feels like her eyelid skin is hanging over her eyelashes. She is upset that she can't wear eye makeup like she used to.

Upper eyelid skin hooding



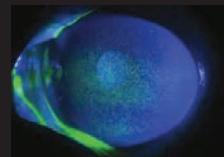
## Dermatochalasis

Skin hanging over eyelashes  
Loss of tarsal platform



## Preoperative Assessment

- Dry eyes
  - Artificial tear use
  - Punctal plugs
- Previous eyelid surgery
- Lagophthalmos
- Symmetry
- Expectations and goals



## Goals and Expectations

- Patient's goals and expectations
- Surgeon's goals and expectations:
  - Natural and rejuvenated appearance
  - Restoring volume and anatomical structures to natural position
  - Turn clock back!
  - Can't stop aging...

## Surgery Plan

- Upper Blepharoplasty

Video to be included here



Reduced skin hooding



Restored tarsal platform

## Case 2

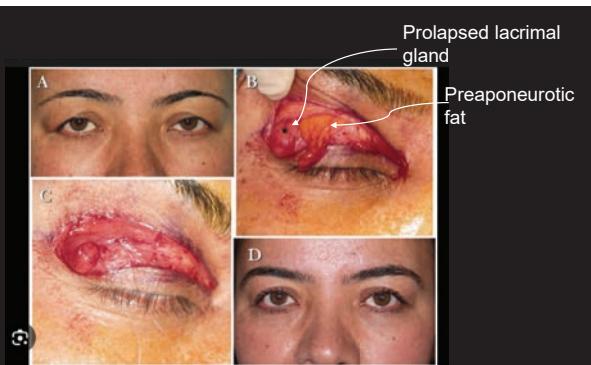
A 33 year old woman complains of fullness of her upper eyelids. She feels little bumps in the outer aspect of her eyelid. Denies pain, pressure, or fluctuation in size.

No relevant past medical or ocular history.



## Surgery Plan

- Upper Blepharoplasty with lacrimal gland repositioning



Yuksel, D., Yakin, M., Kosker, M., & Simsek, S. (2013). The Treatment of Lacrimal Gland Prolapse in Blepharoplasty by Repositioning the Glands. *Seminars in Ophthalmology*, 28(4), 230-232.



## Case 3

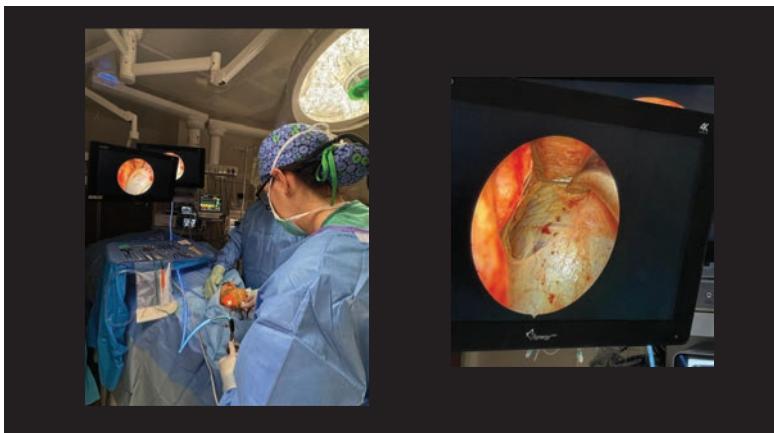
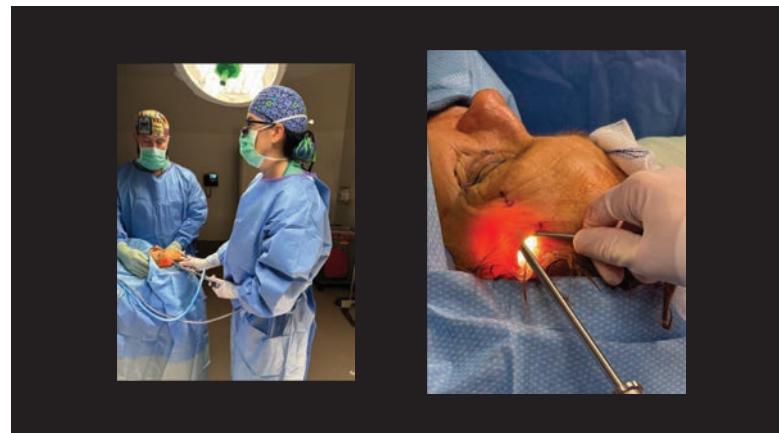
- A 72 year old woman presents with complaint of "droopy upper eyelids." Her eyelids feel heavy.
- No relevant past medical or ocular history
- Denies history of eyelid / facial surgery.
- Denies history of botox injections



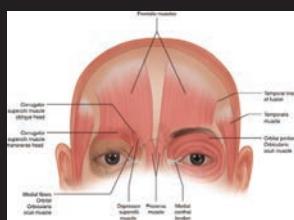


## Surgery Plan

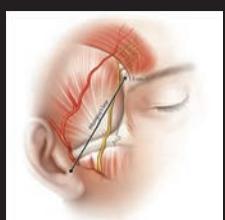
- Upper Blepharoplasty
- Endoscopic Brow and Forehead Lift



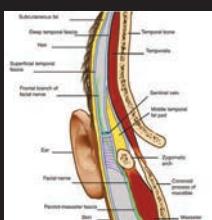
## Anatomy



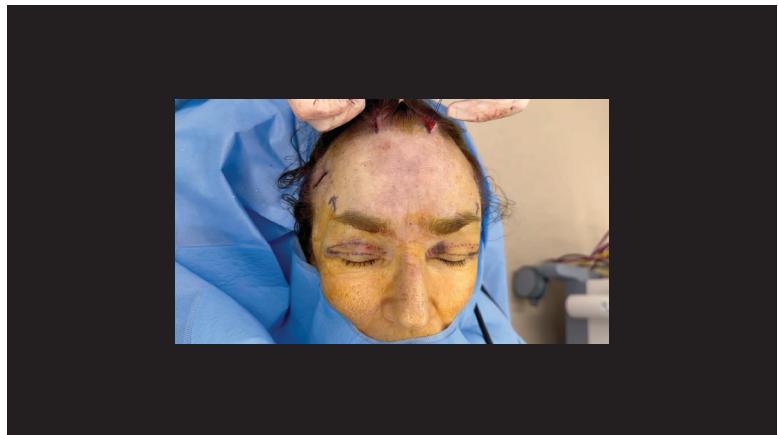
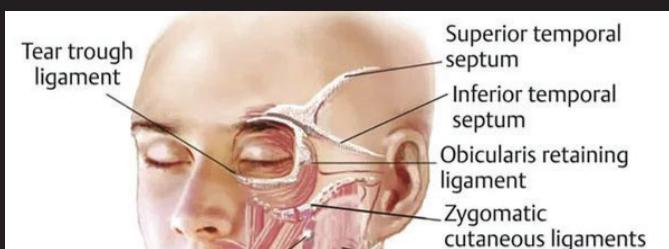
Frontalis muscle  
Corrugator muscles  
Procerus muscles



Frontal Branch of Facial Nerve



## Anatomy





Aliza Epstein, MD

## Case 4

• A 77 year old man is bothered by heaviness of his upper eyelids.

- No relevant past medical or ocular history
- Denies history of eyelid / facial surgery.
- Denies history of botox injections



## Surgery Plan

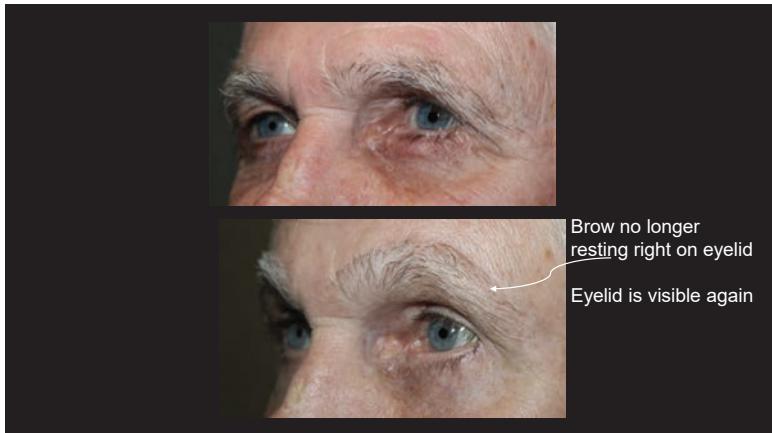
- Upper Blepharoplasty
- Direct Brow Lift

Mark the skin



Aliza Epstein, MD





## Scar Optimization

- Sun protection
- Starting 2 weeks after surgery - silicone based scar cream and/or hydrocortisone cream
- 5-Fluorouracil injections
- Microneedling



## Case 5

- A 64 year old female presents with concerns regarding upper eyelid appearance.
- No relevant past medical or ocular history
- Denies history of eyelid / facial surgery.
- Prior history of forehead and periorbital botox, more than 3 months ago

Long forehead



Heavy brow tissue  
Upper eyelid  
hooding



## Pretrichial Brow Lifting

- Predictable and long lasting
- Reduce forehead height
- Visible incision
  - Hair coverage



Thank you!



Scan to follow my Instagram!



Dr.alizaepstein