Drooping Eyelids & Eye Aesthetics



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THE Oculoplastics CENTER

Disclosures

Speaker’s Bureau:

- Amgen
- Viridian Therapeutics

Consultant:

- Amgen

Please no recording or screen shots to respect patient confidentiality



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Oculofacial Plastic and

Reconstructive Surgery

THE Oculoplastics CENTER



Undergraduate
Point Loma Nazarene University
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Medical School
University of Washington
Seattle, WA



Internship & Residency
University of Washington
Seattle, WA



Fellowship - Oculoplastics
Baylor College of Medicine
Houston, TX

Aesthetics for the Eye Doc

- Drooping eyelids
- Wrinkles and lines of expression
- Skin quality coloration around the eyes

Droopy lids



Discussion

- Etiology of "droopy lid"
- Limitations of daily living by droopy lids
- How to evaluate the patient with droopy lids
- When to refer
- Surgery

What causes droopy lids???

The blinds to the window of your soul

Nomenclature:

1. Blepharoptosis - most commonly called ptosis
2. Brow ptosis - brow descent
3. Dermatochalasis - extra eyelid skin





Blepharoptosis

AKA "PTOSIS"

Ptosis

INVOLUTIONAL

Age related
Most common type

Stretching or disinsertion of the levator aponeurosis.

High lid crease, normal levator function.

MUSCULAR / CONGENITAL

The muscle does not develop appropriately

Concrete wall rather than a thick rubber band

Poor lid crease, low levator function, lagophthalmos.

NEUROGENIC

Myasthenia Gravis
Cranial Nerve 3 Palsy
Marcus Gunn Jaw Wink
Muscular Dystrophy
Horners

**Variable presentation, even within one clinic visit

MECHANICAL

Mass + Gravity

Chalazia
Eyelid tumors
Neurofibroma

Eyelid lesion or weight of the eyelid causing ptosis.

Involutional

Age related



Myogenic



Congenital or muscular



Neurogenic

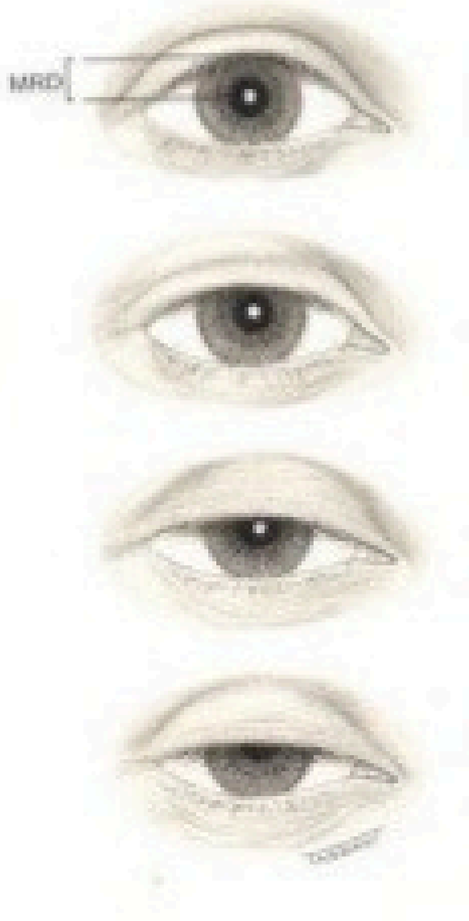
Myasthenia Gravis
Cranial Nerve 3 Palsy
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Mechanical

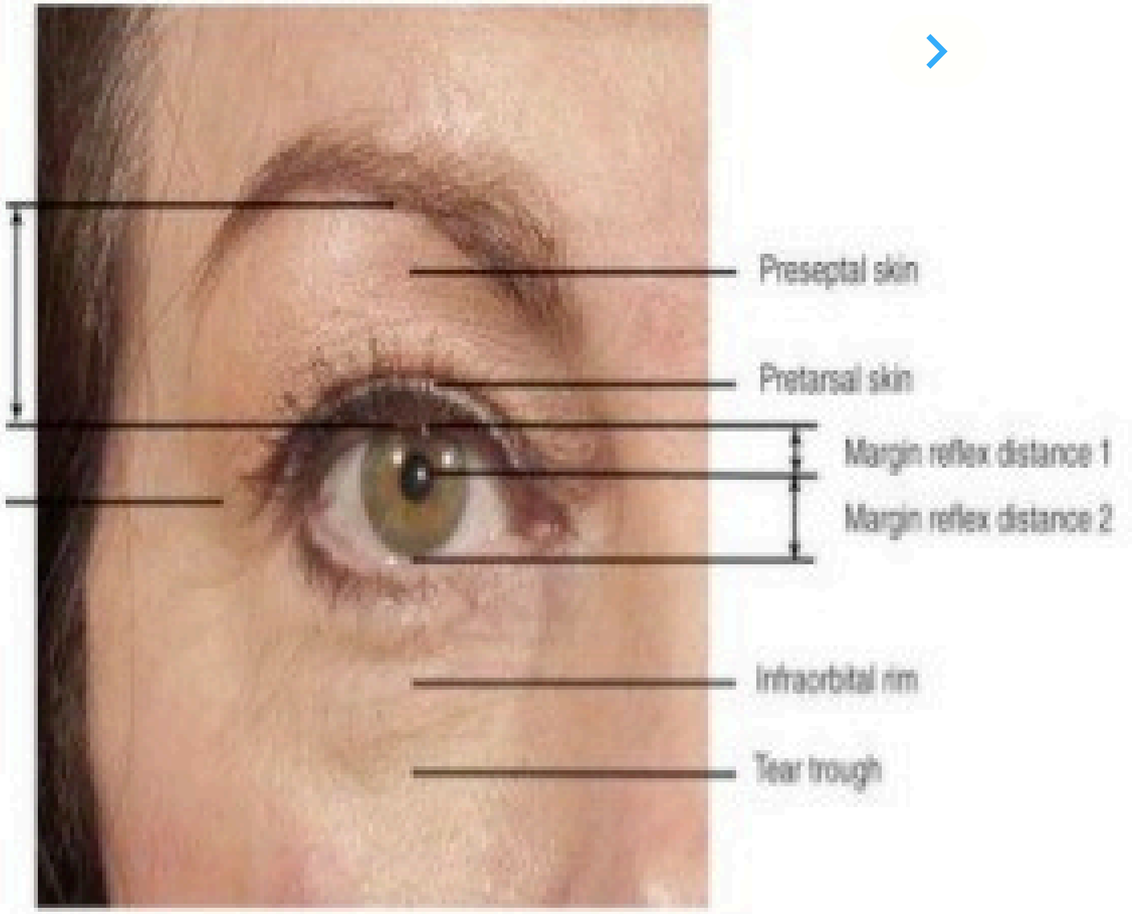


Weighted down

Margin Reflex Distance



- **Distance between upper lid margin and light reflex (MRD1, 4-4.5mm)**
  - **Mild ptosis MRD 1(2-2.5mm)**
  - **Moderate ptosis (MRD1 1-1.5mm)**
  - **Severe ptosis (MRD1 <1mm)**



HTTPS://WWW.SLIDESHARE.NET/DHWANITKHETWANI/ANATOMY-OF-EYELID-AND-PTOSIS-144616890MELLAR SHORTAG

What causes droopy lids???

"Theblinds"to the window of your soul

Nomenclature:

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2. **Brow ptosis - brow descent**
3. Dermatochalasis - extra eyelid skin



Brow Ptosis



DO YOU LOOK HOW YOU FEEL?

Often patients with brow ptosis get confused as being angry or over critical

Soft tissues of the brow descend with gravity over time

HTTPS://WWW.RESEARCHGATE.NET/FIGURE/A-PREOPERATIVE-PHOTOGRAPH-SHOWING-MARKED-BROW-PTOSIS-BROW-FAT-PADS-AND_FIG2_7357796

Anatomy of the brow

Head

Tail



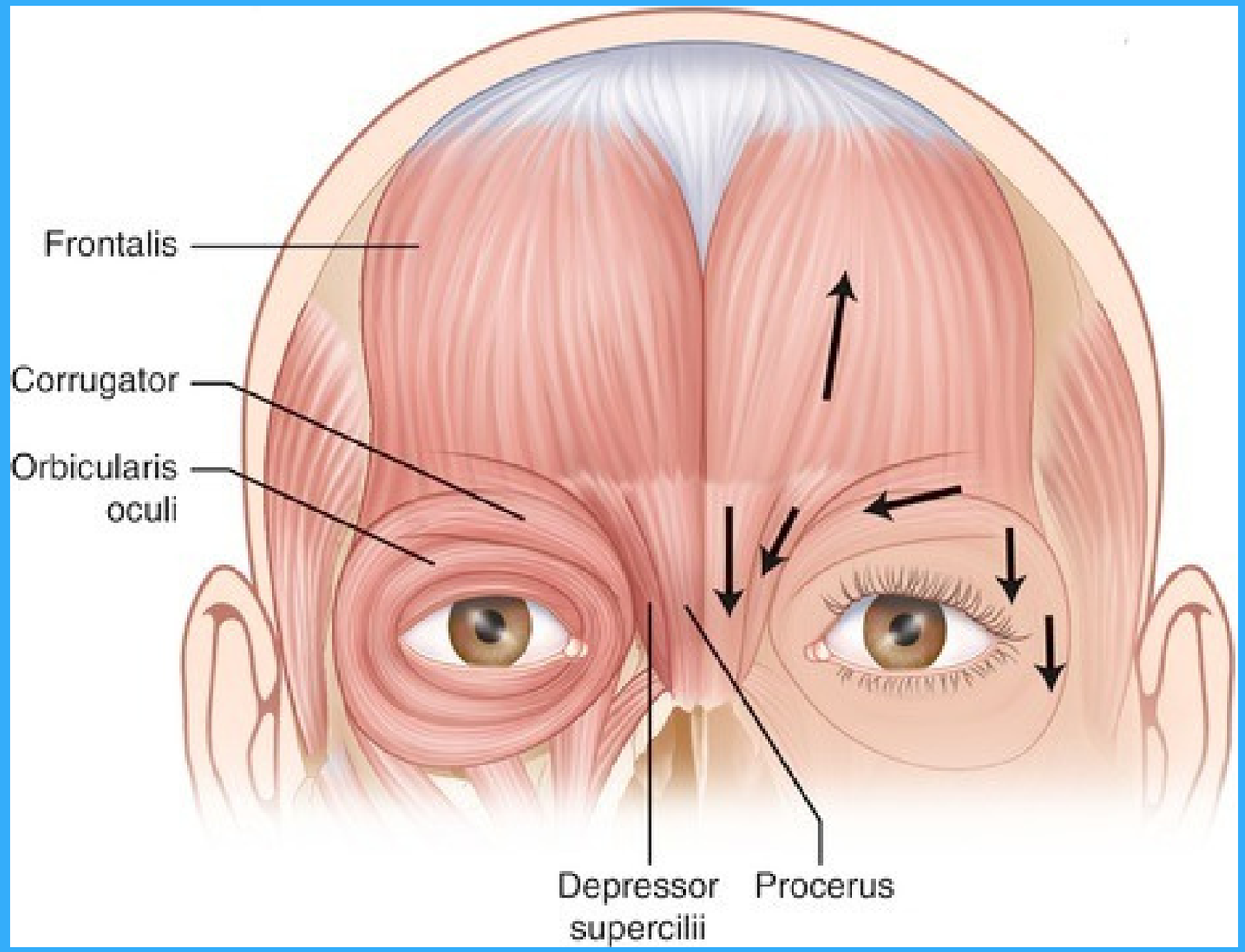
Body

Anatomy of the brow

Brow follicles at or just above orbital rim



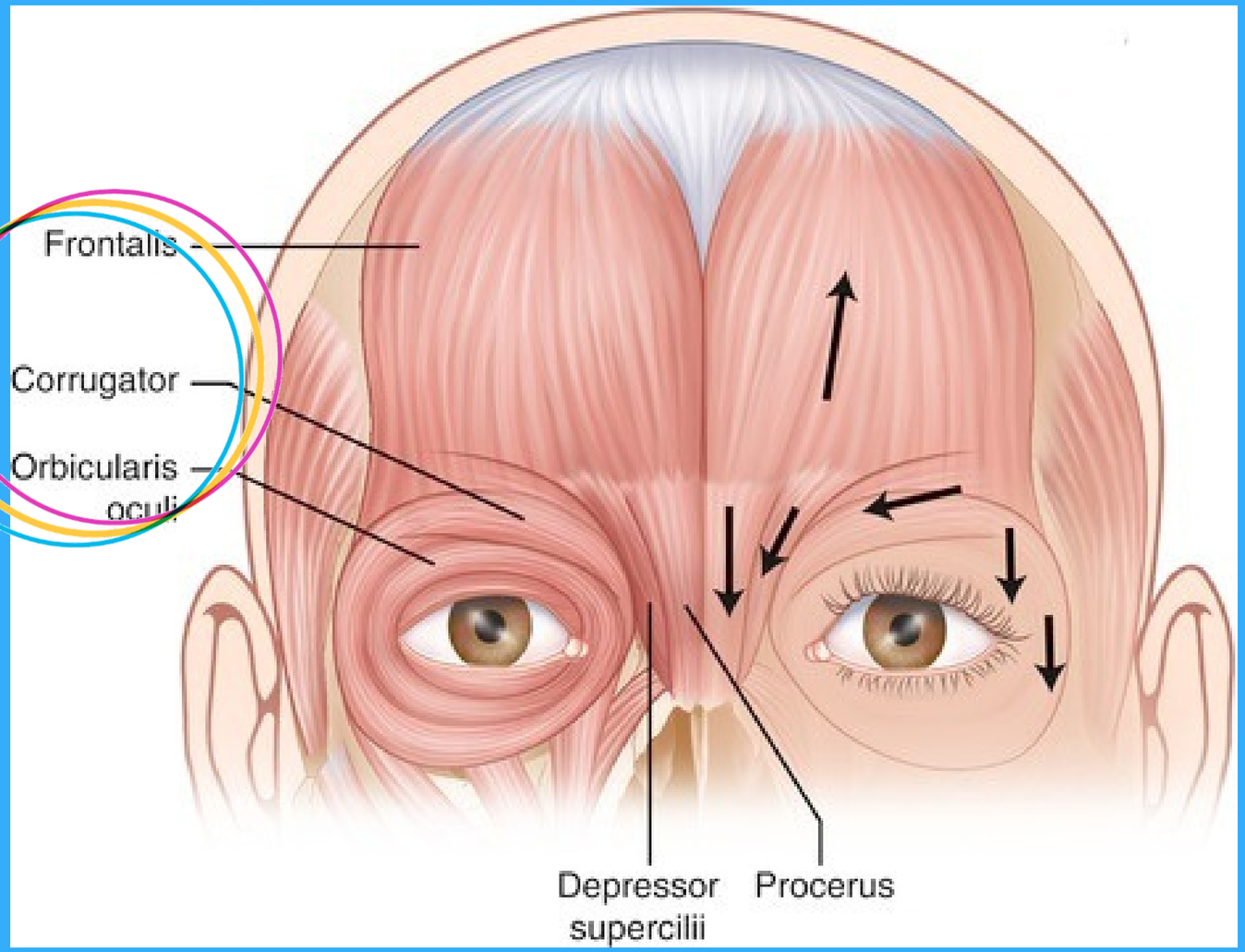
Anatomy of the brow



PEARLS AND PITFALLS IN COSMETIC OCULOPLASTIC SURGERY PP 269-271 | CITE AS FOREHEAD AND EYEBROW ANATOMY AND ITS CONTINUITY WITH THE EYELID

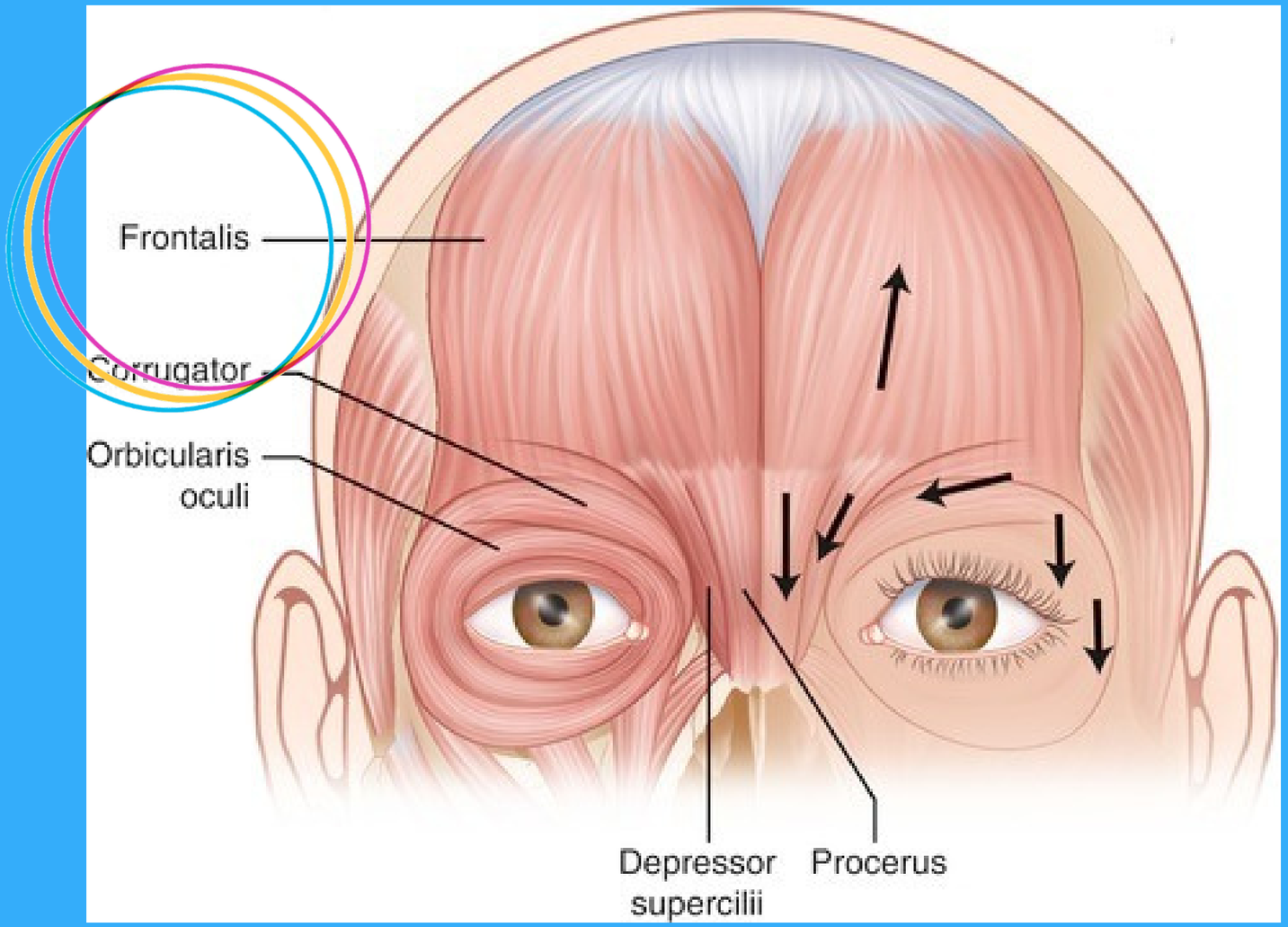
Anatomy of the brow





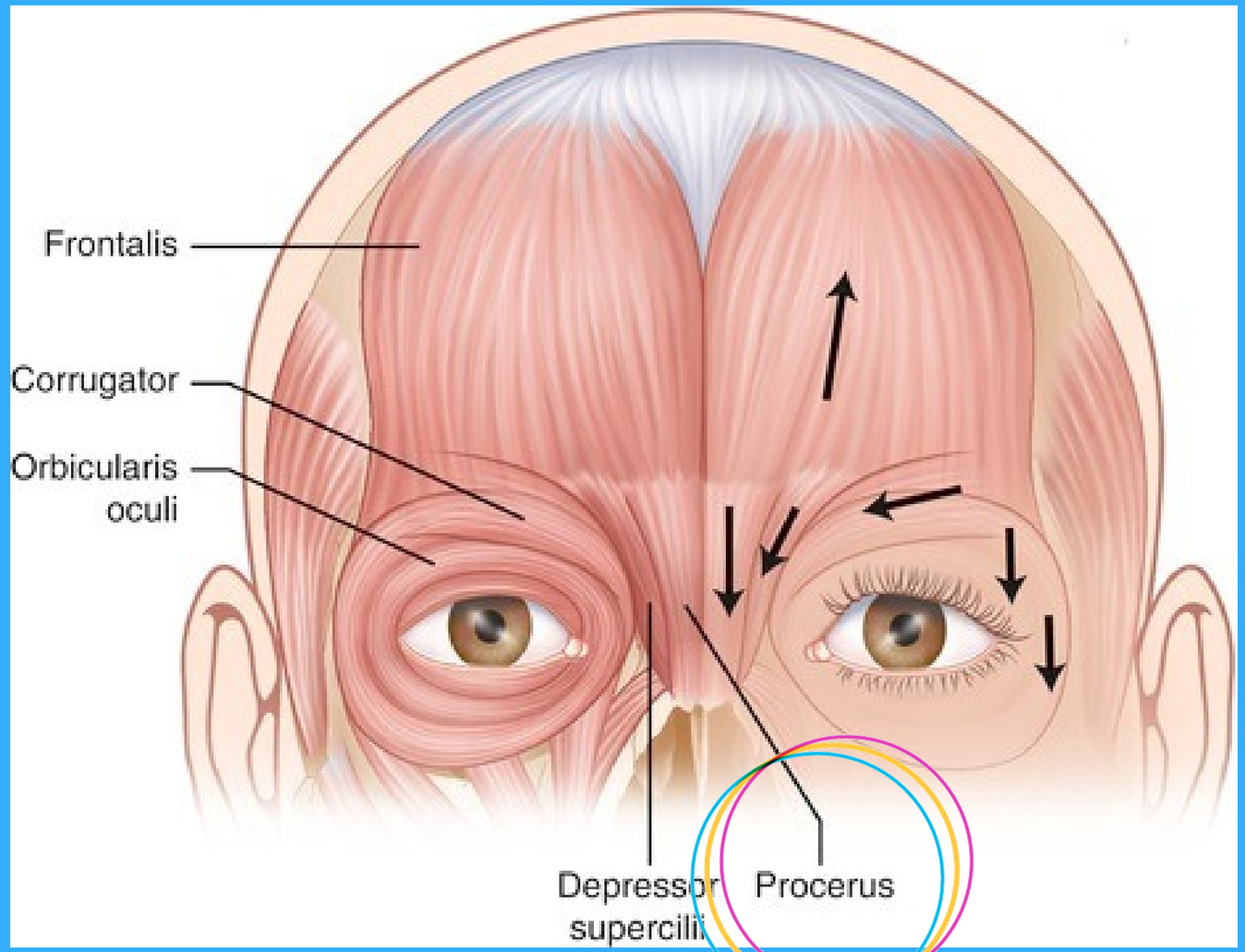
Anatomy of the brow





Anatomy of the brow





What causes droopy lids???

"The blinds" to the window of your soul

Nomenclature:

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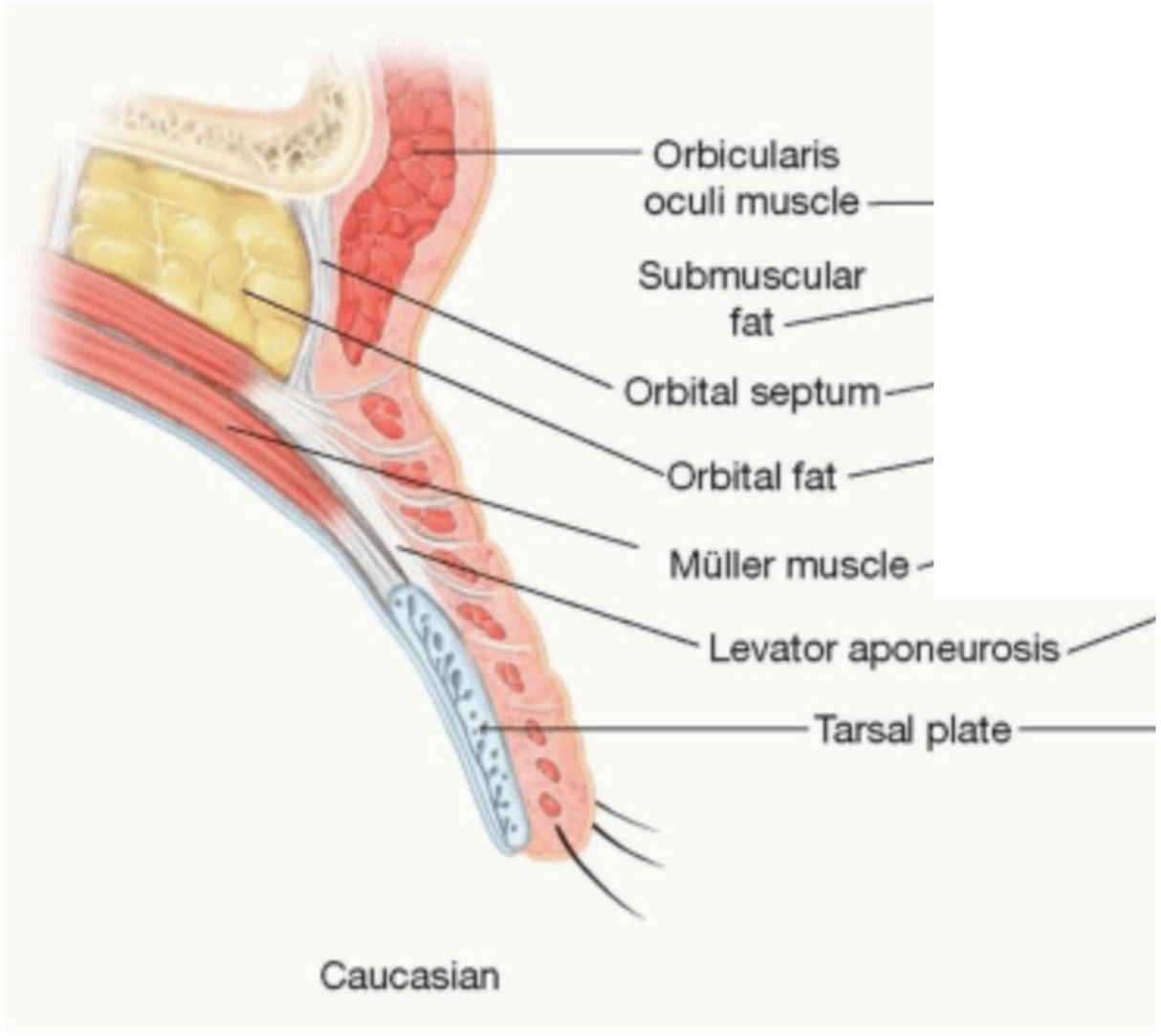
Dermatochalasis



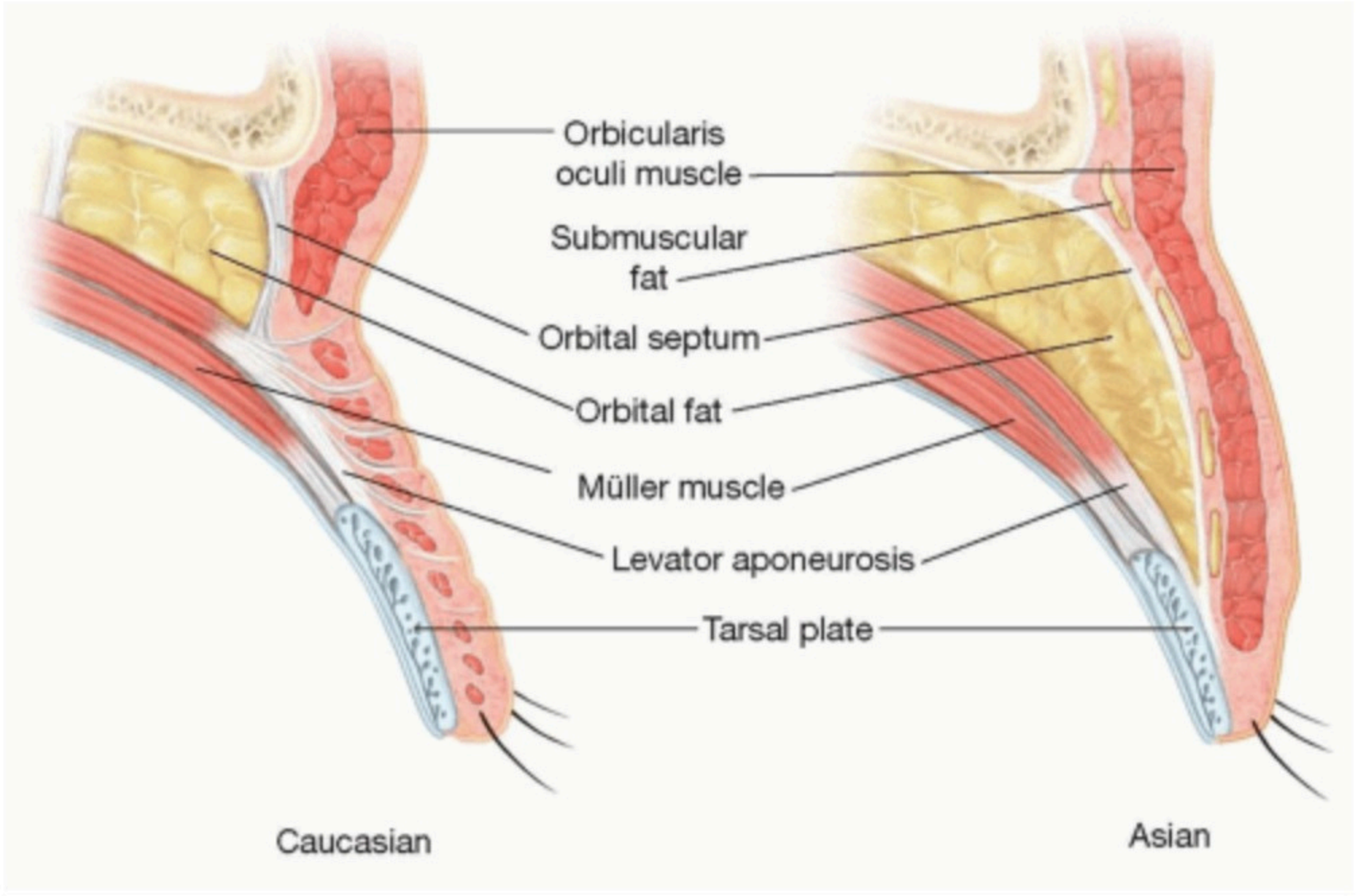
ONE OF THE MOST NEGLECTED CONDITIONS IN EYE CARE

Slow incremental change that patients compensate for

- "I'm too old for cosmetic surgery"
- "I just got used to it"
- "I didn't think I was missing anything until my doctor lifted up my eyelids"



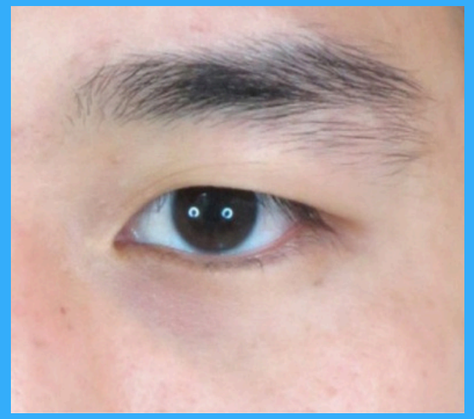
ROLL OF TISSUE OVER THE EYELID CREASE - DERMATOCHALASIS
PUFFINESS (FAT HERNIATION) - STEATOBLEPHARON



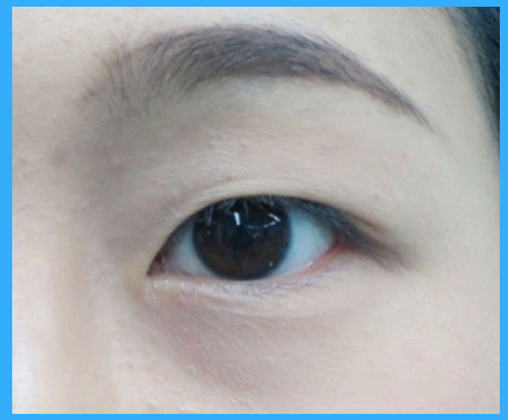
WHAT CAUSES AN EYELID CREASE?

WHAT ARE VARIATIONS TO AN EYELID CREASE

Types of Asian Eyelids



No lid crease



Low (hidden) lid crease

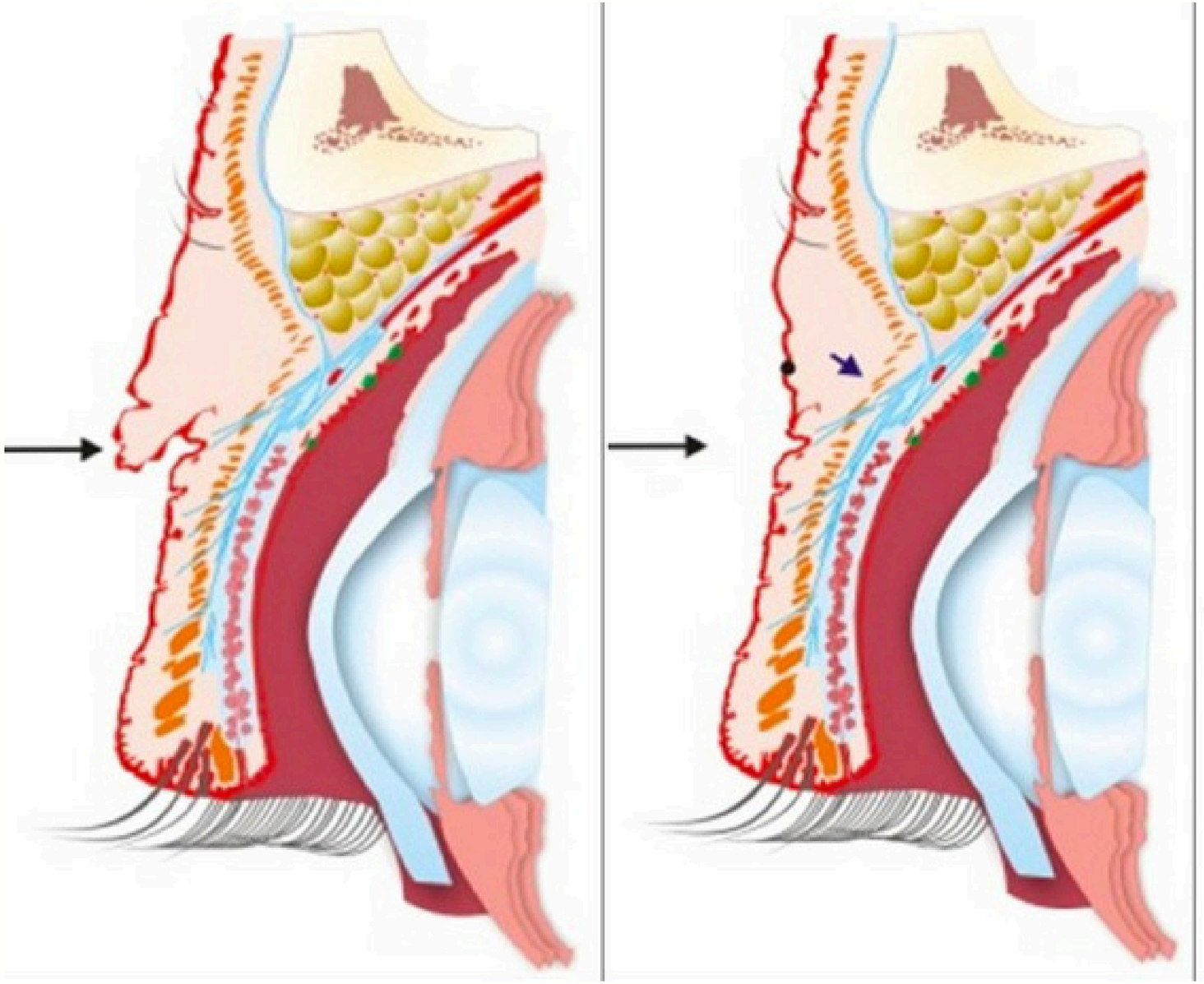


Crease above fold



Crease below fold

KIRANANTAWAT K, SUHK JH, NGUYEN AH. THE ASIAN EYELID: RELEVANT ANATOMY. SEMIN PLAST SURG. 2015;29(3):158-164. DOI:10.1055/S-0035-1556852



ROLL OF TISSUE OVER THE EYELID CREASE TO AN EYELID CREASE

WHEN IS IT PROBLEMATIC?



Discussion

- Etiology of "droopy lid"
- **Limitations of daily living by droopy lids**
- How to evaluate the patient with droopy lids
- When to refer
- Surgery



FREQUENCY OF PTOSIS
IN PATIENTS >50 - **5%**

SRIDHARAN, AGE AGEING, 1995)



FREQUENCY OF PTOSIS
IN PATIENTS AFTER INTRAOCULAR SURGERY

11.4%

INCIDENCE AND RISK OF PTOSIS FOLLOWING OCULAR SURGERY: A SYSTEMATIC REVIEW AND META-ANALYSIS
YIJIE WANG, LIXIA LOU, ZHIFANG LIU & JUAN YE
GRAEFE'S ARCHIVE FOR CLINICAL AND EXPERIMENTAL OPHTHALMOLOGY VOLUME

ORIGINAL ARTICLE

Prevalence of eyelid diseases among adults in Hong Kong

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[3]*Hong Kong Eye Hospital, Hong Kong*
[4]*Department of Ophthalmology and Visual Sciences, The Chinese University of Hong Kong*

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Abstract

Introduction: Eyelid diseases affect visual function and quality of life. This is the first study to investigate the prevalence of eyelid diseases among the general population in Hong Kong.

Methods: On 22 October 2017, The College of Ophthalmologists of Hong Kong and The Hong Kong Ophthalmological Society jointly organized a Public Education Day. A total of 165 participants were recruited for eyelid disease screening. Eyelid examination was performed by ophthalmology residents under the supervision of a specialist subspecializing in oculoplastics to identify any eyelid diseases (dermatochalasis, ptosis, entropion, ectropion, lash misdirection, presence

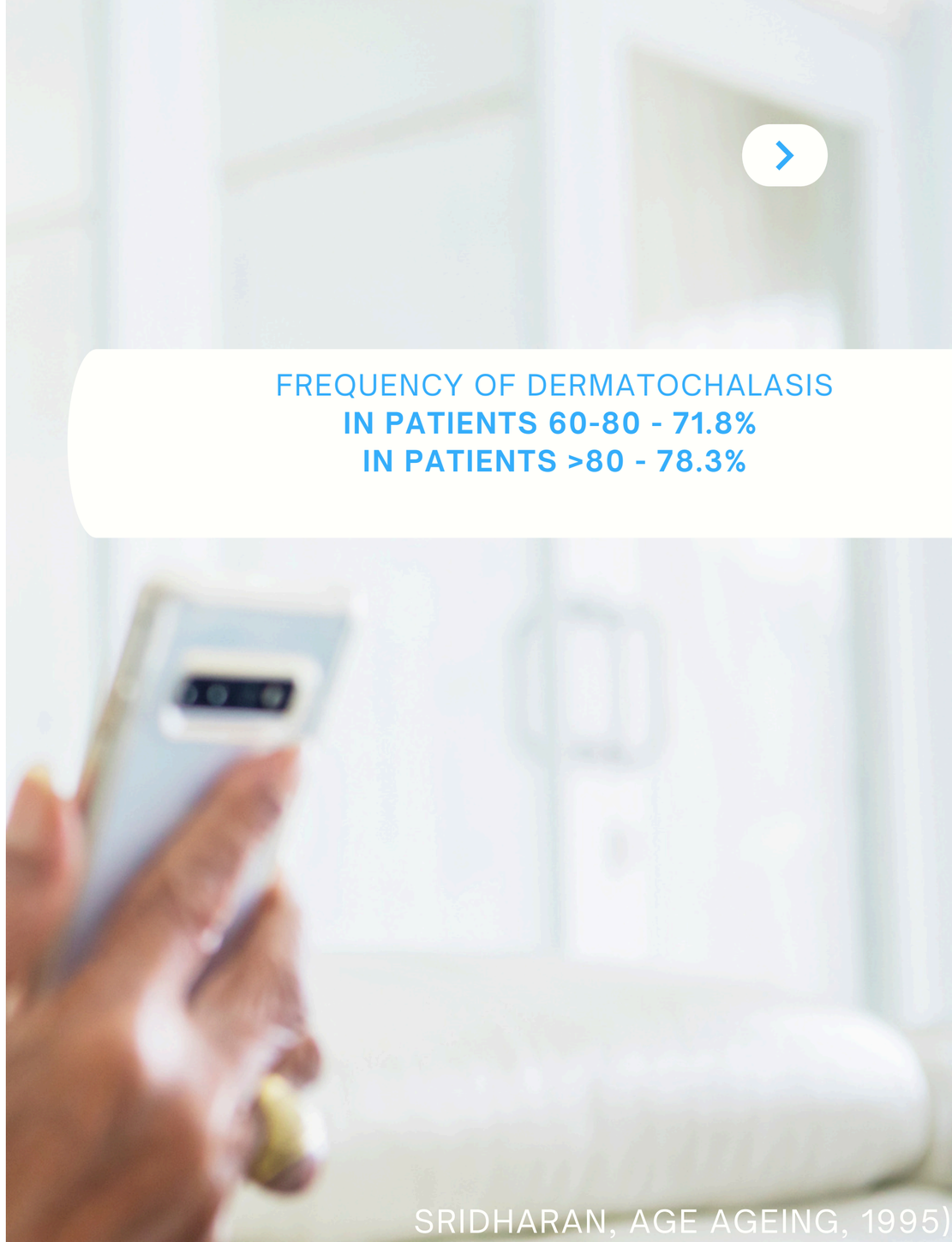
the general population in Hong Kong, particularly dermatochalasis, ptosis, and blepharitis. Eyelid diseases may negatively impact patients functionally and psychosocially. Clinicians and the general public should be aware of these eyelid diseases.

Key words: *Blepharitis; Ectropion; Entropion; Eyelid diseases; Eyelid neoplasms*

Introduction

Common eyelid diseases include dermatochalasis, ptosis, entropion, ectropion, lash misdirection, presence of eyelid masses, and blepharitis (**Figures 1** and **2**). Eyelid diseases may affect visual function and quality of life. Correction of eyelid diseases significantly improves vision-related quality

FREQUENCY OF DERMATOCHALASIS
IN PATIENTS 60-80 - 71.8%
IN PATIENTS >80 - 78.3%



SRIDHARAN, AGE AGEING, 1995)

What is affected?

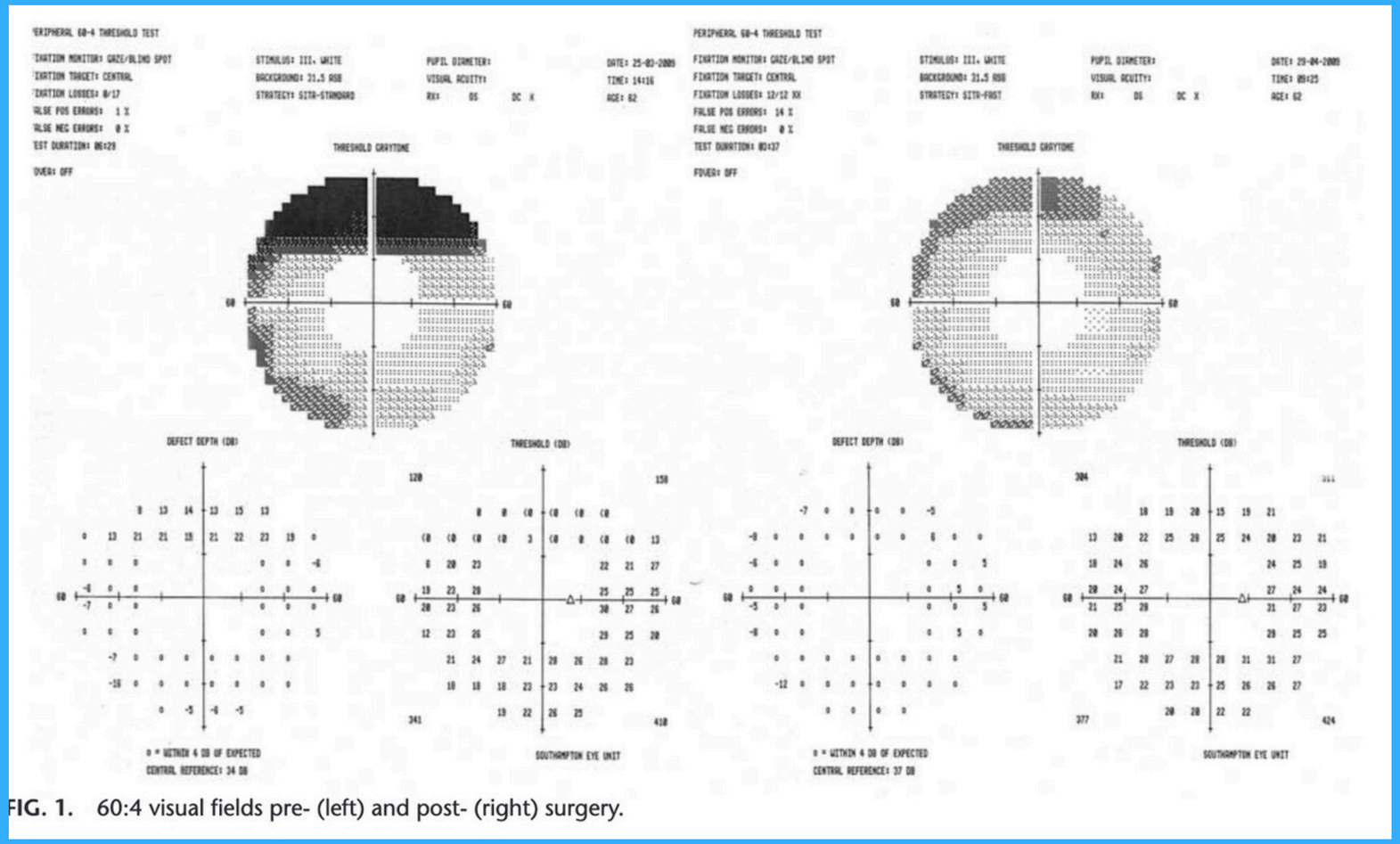


FIG. 1. 60:4 visual fields pre- (left) and post- (right) surgery.

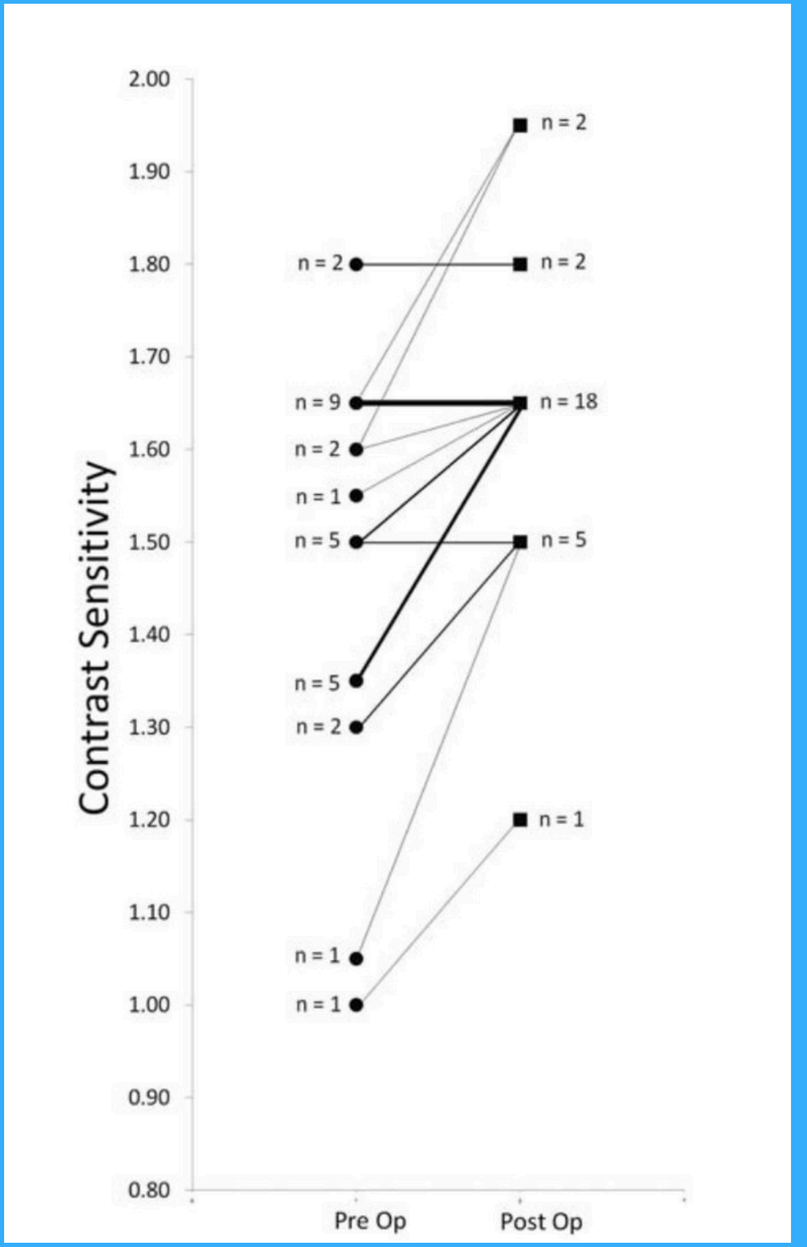
ROGERS, SIMON A. G.; KHAN-LIM, DOREEN; MANNERS, RUTHM. DOES UPPER LID BLEPHAROPLASTY IMPROVE CONTRAST SENSITIVITY? OPHTHALMIC PLASTIC AND RECONSTRUCTIVE SURGERY. 28(3):163-165, MAY/JUNE 2012.

What is affected?

Mean pre- and postoperative visual acuity and contrast sensitivity

	Pre-Op	Post-Op	*p* value
Mean LogMAR acuity	0.09	0.15	$p = 0.13$
Mean Contrast sensitivity	1.50	1.64	$p = 0.00002$

Pre-op, preoperative; post-op, postoperative.



ROGERS, SIMON A. G.; KHAN-LIM, DOREEN; MANNERS, RUTHM. DOES UPPER LID BLEPHAROPLASTY IMPROVE CONTRAST SENSITIVITY? OPHTHALMIC PLASTIC AND RECONSTRUCTIVE SURGERY. 28(3):163-165, MAY/JUNE 2012.

What is affected?

Blepharoplasty + ptosis repair

Eyelid status	Mean difference in contrast sensitivity	*P*
Untaped vs. taped	0.271	<0.0005
Untaped vs. surgery	0.263	<0.0005
Taped vs. surgery	0.000	0.959

OPHTHALMIC PLASTIC & RECONSTRUCTIVE SURGERY

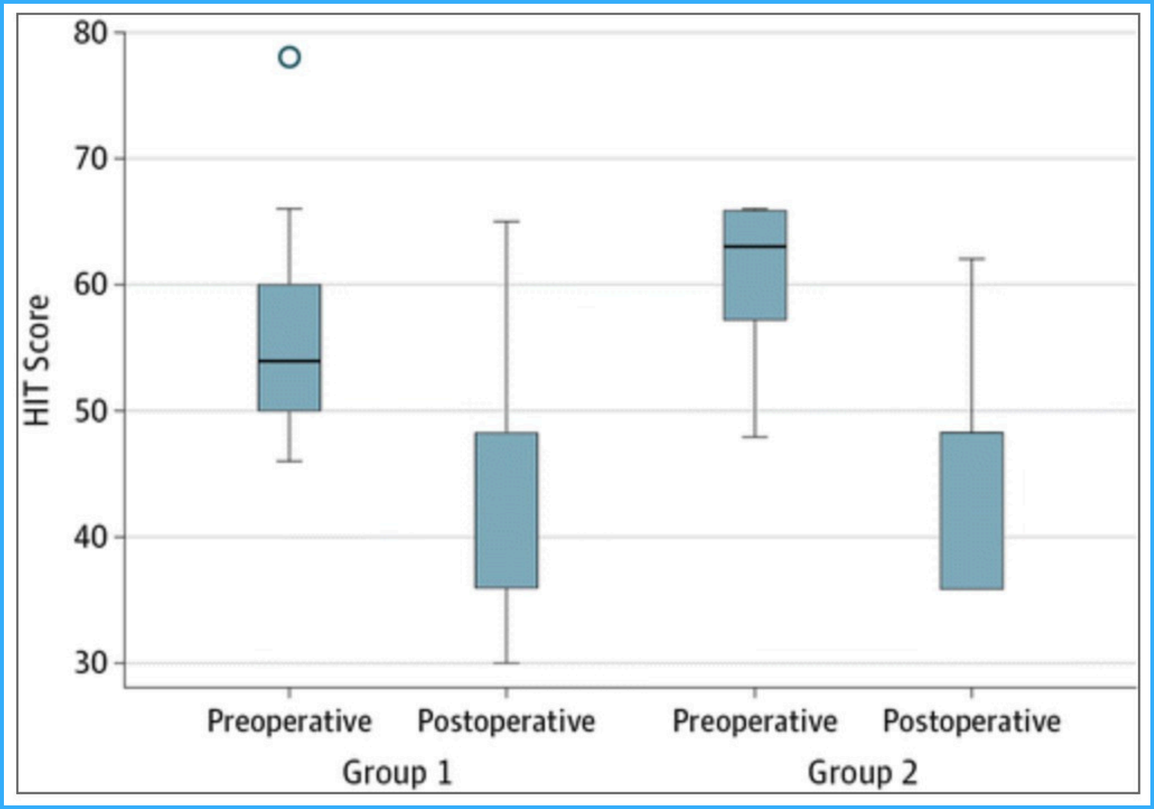
FOWLER, BRIAN T.; PEGRAM, TREY A.; CUTLER-PECK, CAROLEE; KOSKO, MARK; TRAN, QUYNH T.; FLEMING, JAMES C.; OESTER, ALAN E. JR. CONTRAST SENSITIVITY TESTING IN FUNCTIONAL PTOSIS AND DERMATOCHALASIS SURGERY
OPHTHALMIC PLASTIC & RECONSTRUCTIVE SURGERY31(4):272-274, JULY/AUGUST 2015.

Headaches





Headaches



"REPAIR OF PTOSIS AND UPPER EYELID DERMATOCHALASIS PROVIDES SIGNIFICANT IMPROVEMENT IN HIT SCORES FOR PATIENTS WHO HAVE TENSION-TYPE HEADACHE."

Simsek I et al. Association of Upper Eyelid Ptosis Repair and Blepharoplasty With Headache-Related Quality of Life. March 2017. JAMA Facial Plastic Surgery 19(4)

Appearances

MOOD

Angry? Skeptical?



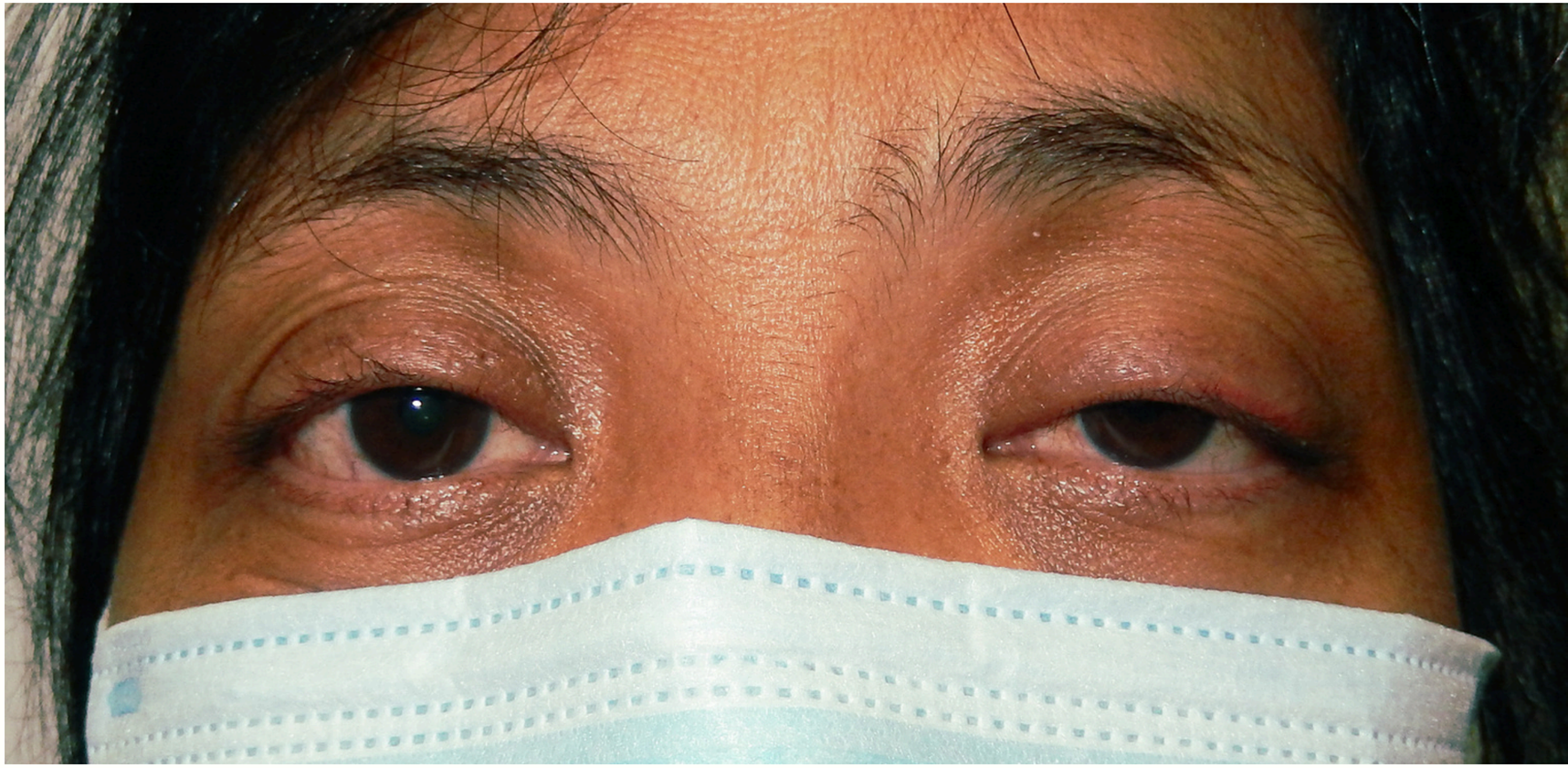
Appearances

MOOD

Angry? Skeptical?

HEALTH

Well rested?



Appearances

MOOD
Angry? Skeptical?

HEALTH
Well rested?

THINKING
Confused?



Look how you feel?

Facial aging harmony

Cosmetic disturbance...



Discussion

- Etiology of "droopy lid"
- Limitations of daily living by droopy lids
- **How to evaluate the patient with droopy lids**
- When to refer
- Surgery

Components of a Complete Eyelid Exam

VISION

Is a lift going to improve vision?
Insurance won't cover ptosis surgery if NLP

PUPILS

Horners
3rd Nerve

EXTRAOCULAR MOTILITY

Double elevator palsy
CPEO
OPMD

VISUAL FIELDS

Confrontation fields
Severe glaucoma
+/- formal visual fields (taping is an issue...)

MRD1

More on this next

LEVATOR FUNCTION

Congenital
Myasthenia Gravis
OPMD, CPEO



How to diagnose dermatochalasis and differentiate dermatochalasis from ptosis

1. Watch the eyelid height during conversation before placing drops, particularly phenylephrine
2. Neutralize the forehead
3. Have patient look straight ahead and measure the MRD1
4. **Get a Q tip and lift the eyelid skin (skin only!) and see if MRD1 is corrected**

When to refer

The elephant in the room

Patients do not know if they need a referral or not

Patients rely upon you to gauge if they are affected by their eyelids/brows

No idea on the cost of "cosmetic surgery"

Will the evaluation be covered under insurance?



When to refer

- When the lids could be blocking peripheral vision
- MRD1 2.5 or worse
- Secondary ptosis
- When the patient asks for it

"When in doubt, rule it out"



Discussion

- Etiology of "droopy lid"
- Limitations of daily living by droopy lids
- How to evaluate the patient with droopy lids
- When to refer
- **Surgery**

Treatment

Meds

Surgery

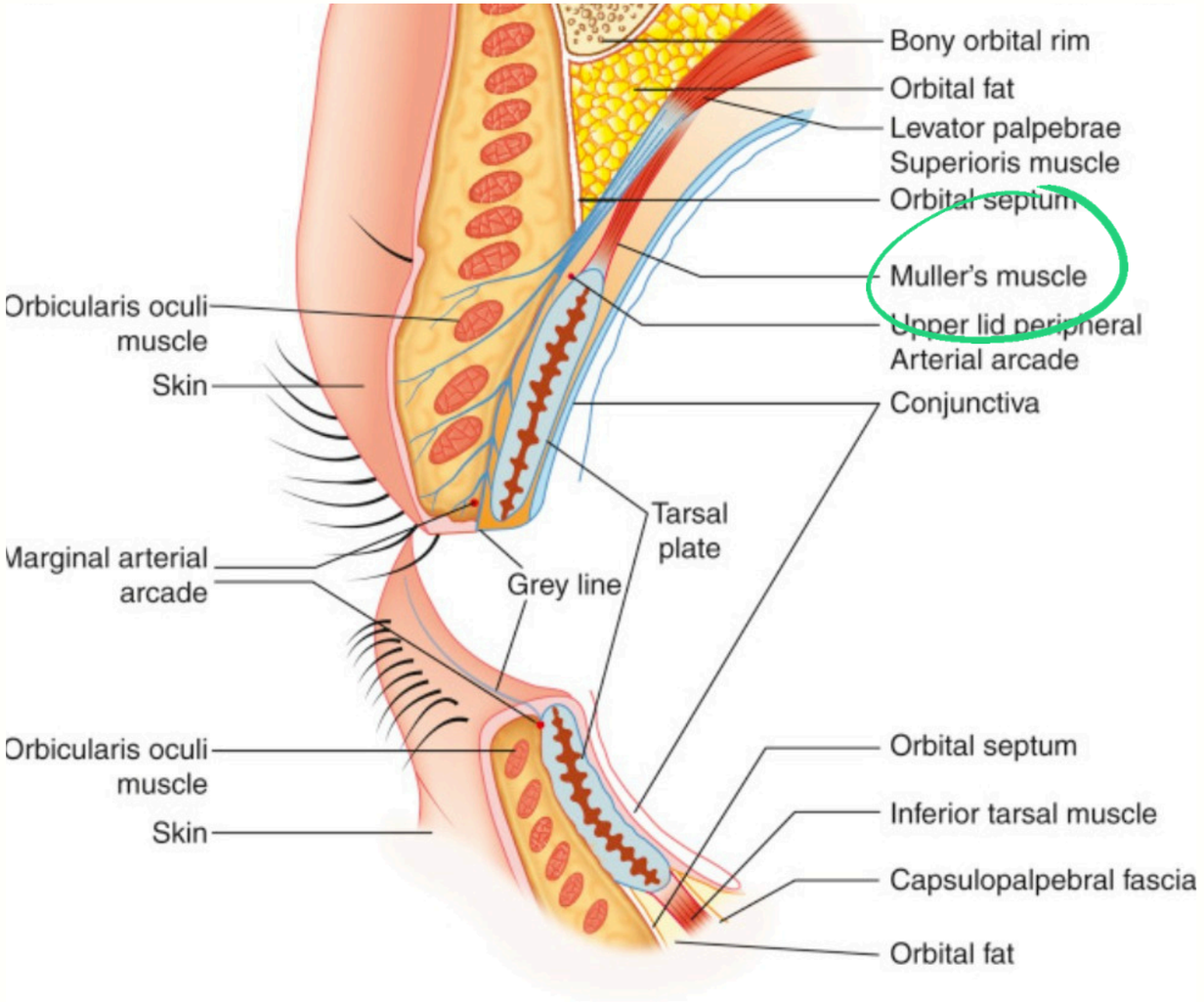
Botox





(oxymetazoline hydrochloride ophthalmic solution) 0.1%

Ptosis repair



- MMCR
  - (MULLERS MUSCLE CONJUNCTIVAL RESECTION)
- ELR
  - (EXTERNAL LEVATOR RESECTION)
- FRONTALIS SLING

Surgery

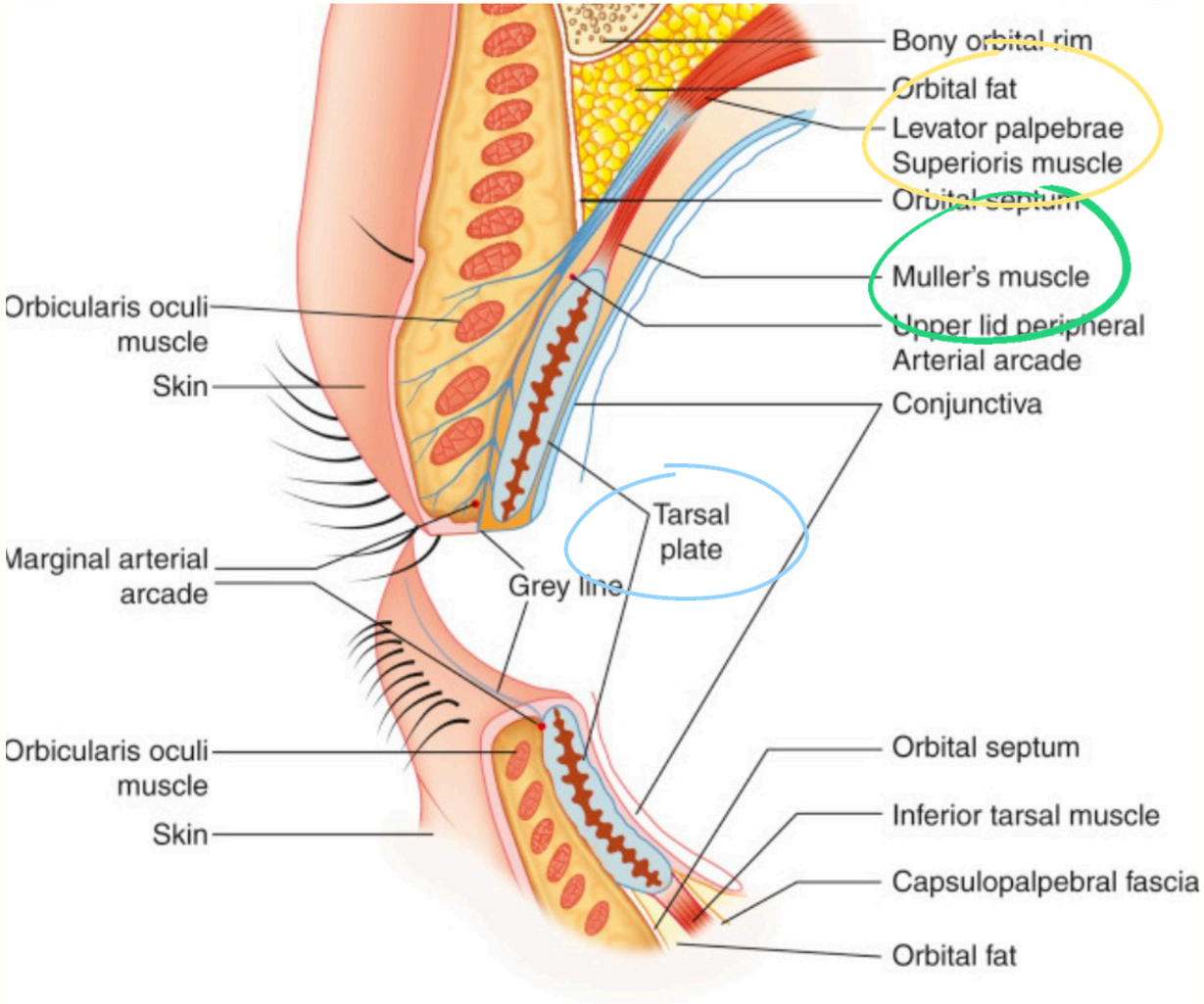
Blepharoptosis repair

Blepharoplasty

Brow lift



Ptosis repair



- MMCR
  - (MULLERS MUSCLE CONJUNCTIVAL RESECTION)
- ELR
  - (EXTERNAL LEVATOR RESECTION)
- FRONTALIS SLING



MMCR

BEFORE



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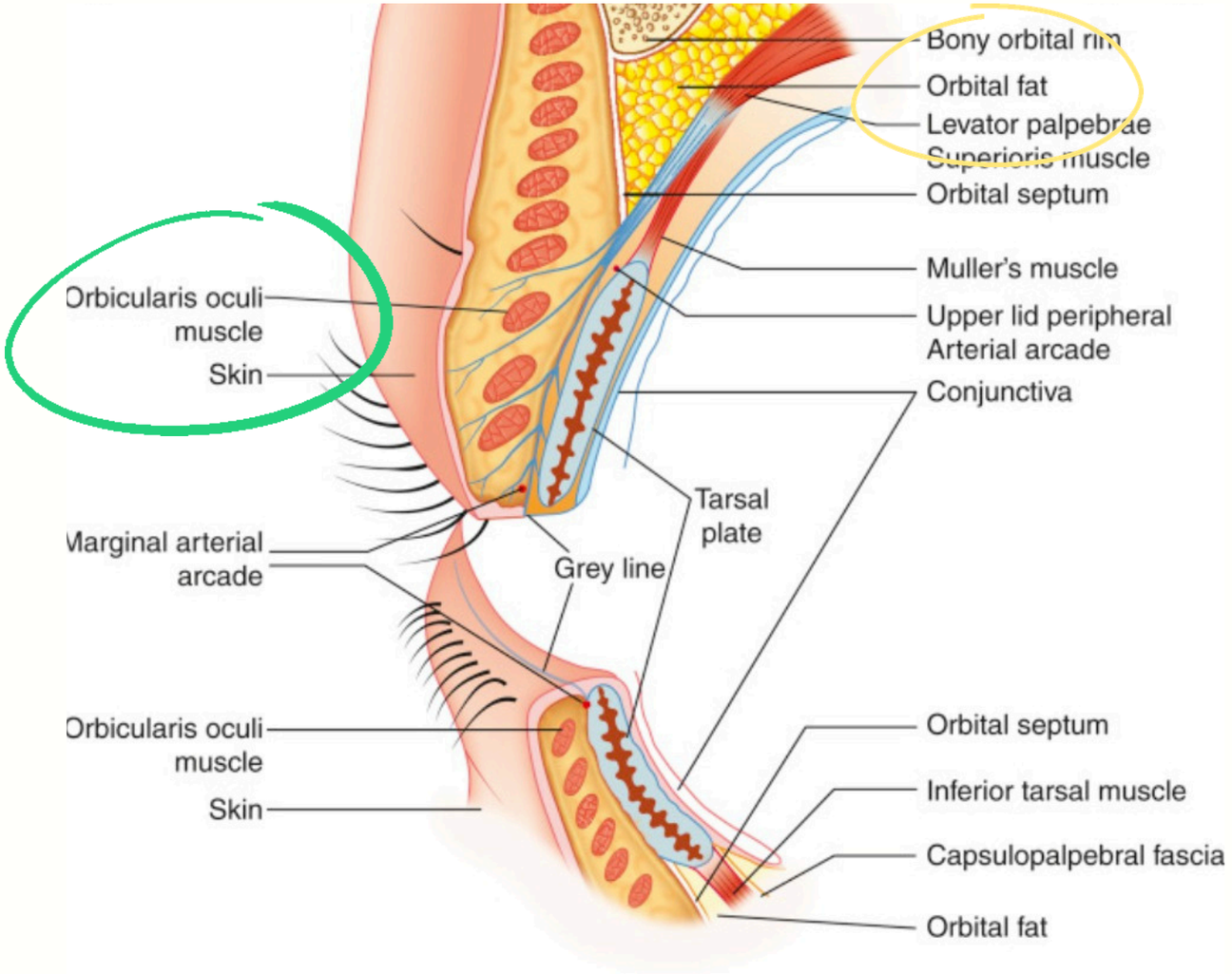
ADAM SWEENEY, MD



AFTER

ELR + small Blepharoplasty

Blepharoplasty



- SKIN AND ORBICULARIS
- CORRECT STEATOBLEPHARON WITH SELECTED FAT REMOVAL
- ASIAN BLEPHAROPLASTY WITH LID CREASE AND FAT CONFIGURATION

BEFORE



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AFTER

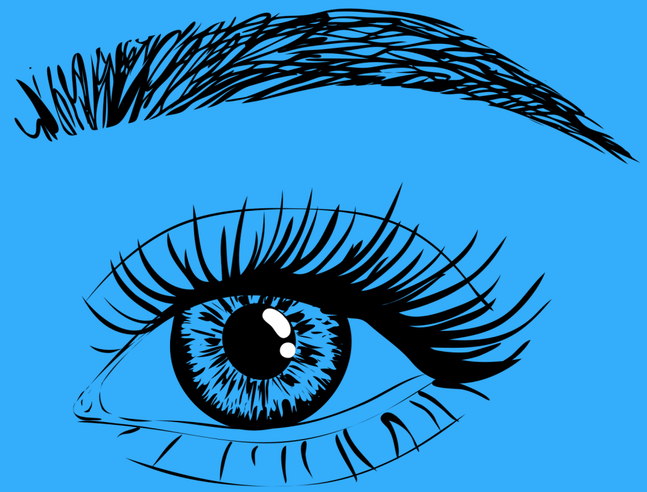
Upper Lid Blepharoplasty

Brow lift

"No perfect way to lift a brow"

- Hairline
- Scar
- Lift efficacy
- Anesthesia/paresthesias

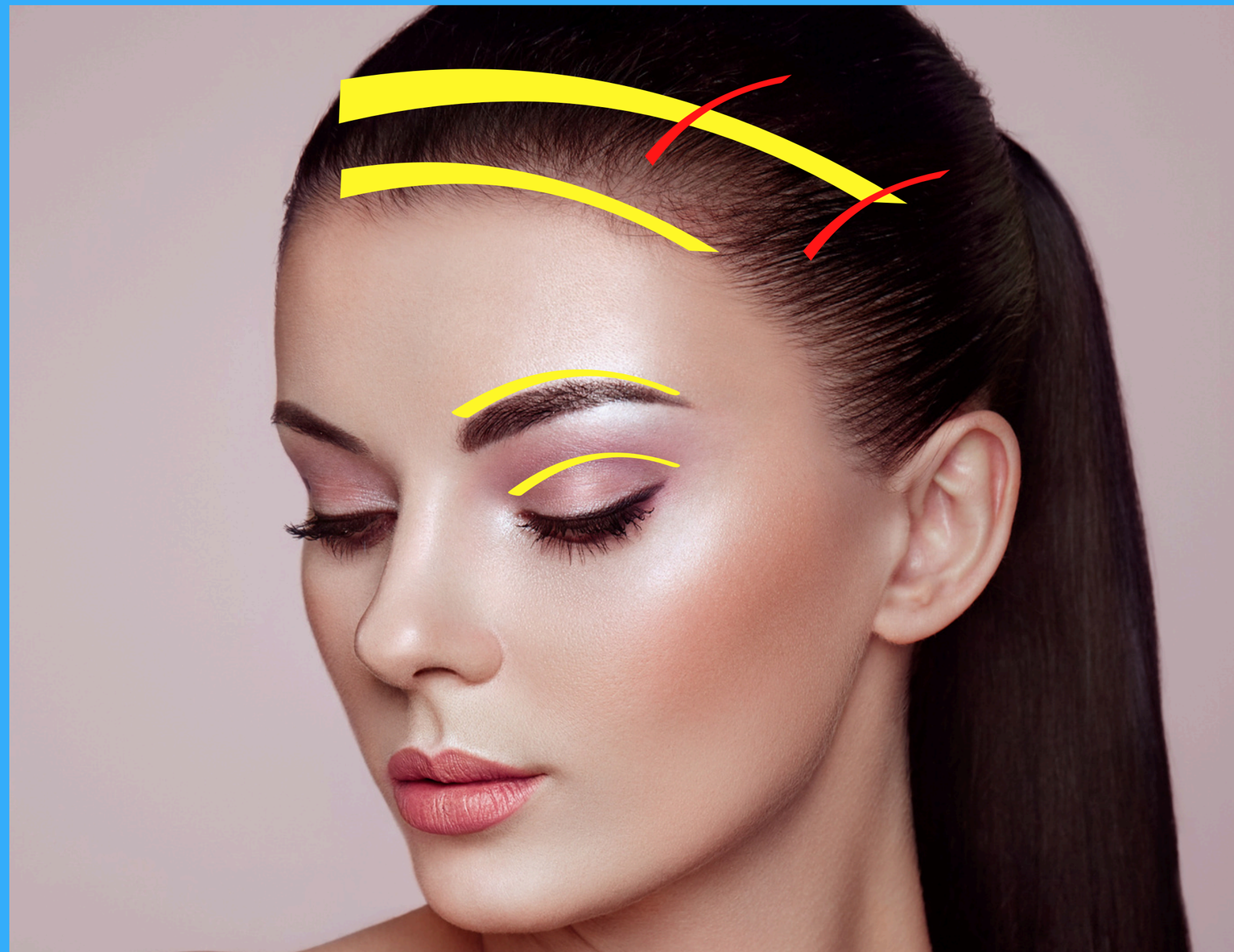






Brow lift

- INTERNAL BROWPEXY
- DIRECT BROW LIFT
- ENDOSCOPIC BROW LIFT
- CORONAL
- PRETRICHIAL



Chemical Brow Lifts

Botulinum toxin

*Paralyzing muscles of expression
*Corrugator muscles depress brows



Summary

WHAT CAUSES DROOPY LIDS

Ptosis
Dermatochalasis
Brow Ptosis

WHAT NOT TO MISS

Horners
3rd Nerve

AM I MISSING IT?

Maybe, but not anymore :)

EXAM TIPS

Neutralize the forehead
Straighten the head
Measure the MRD1

SHOULD I REFER

Is it bothering the patient?
Is it visually significant?
Does the patient notice a difference with lift

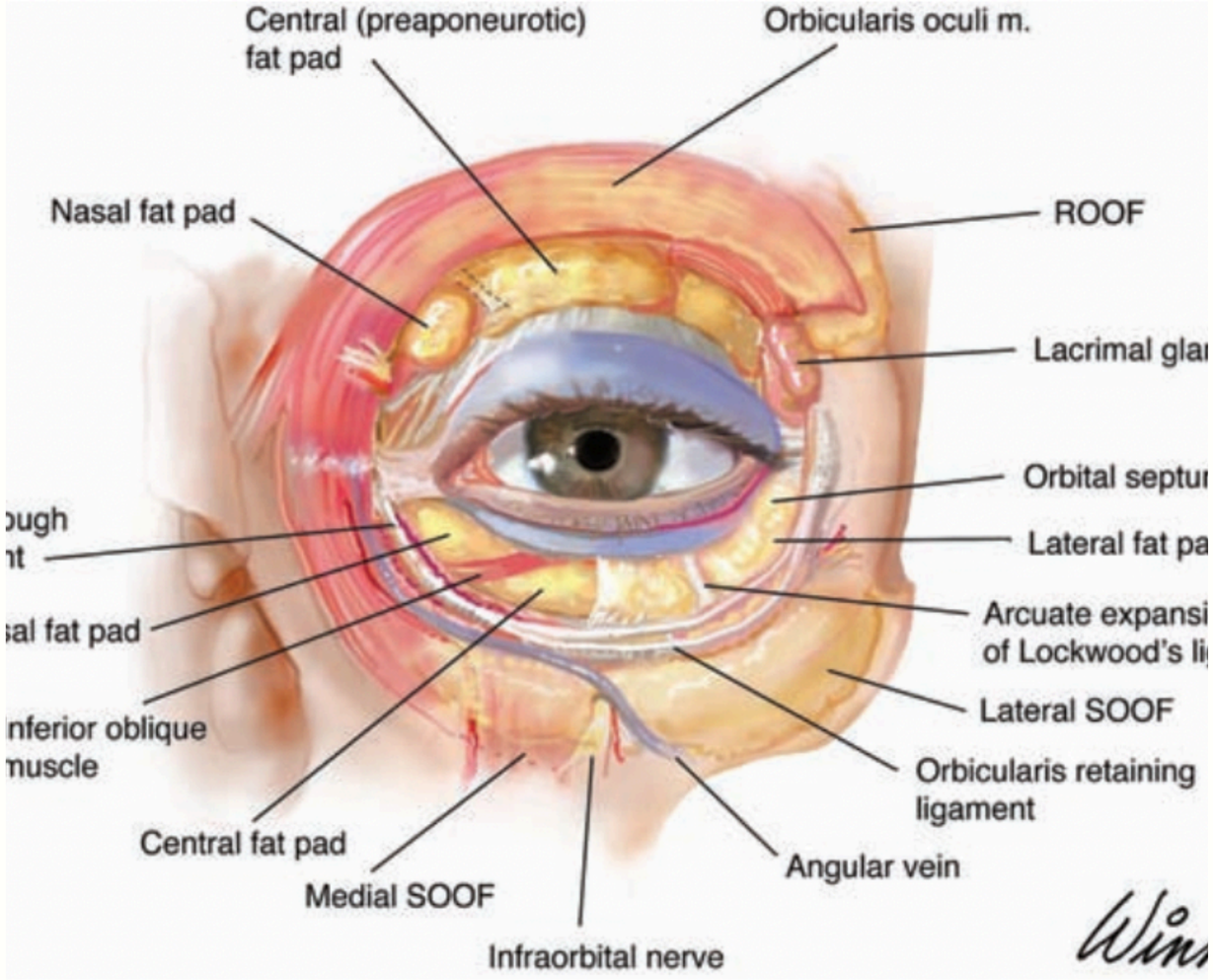
WHAT SURGERY

ELR, MMCR
Blepharoplasty
Brow lift

Lower Lid Dermatochalasis

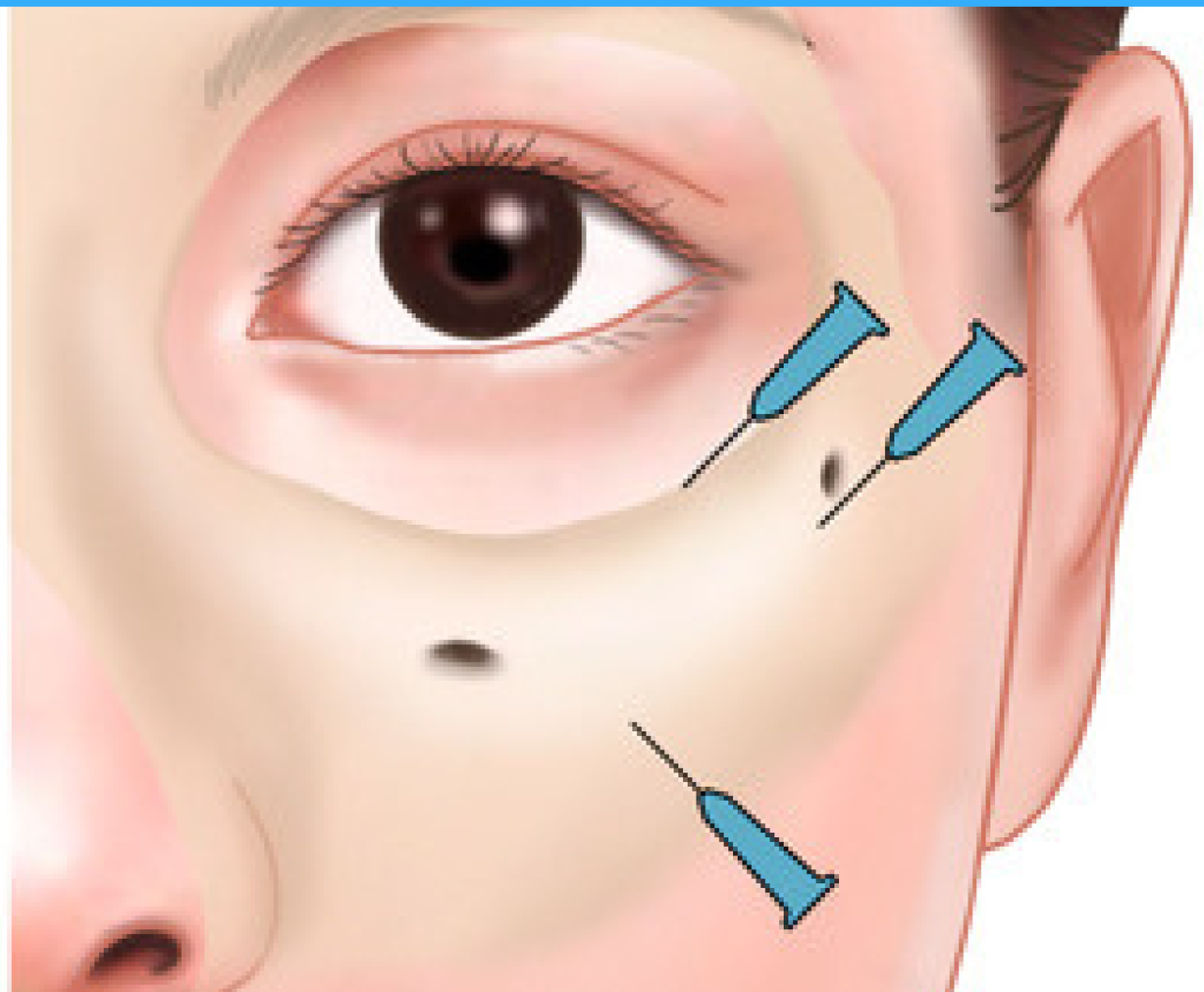


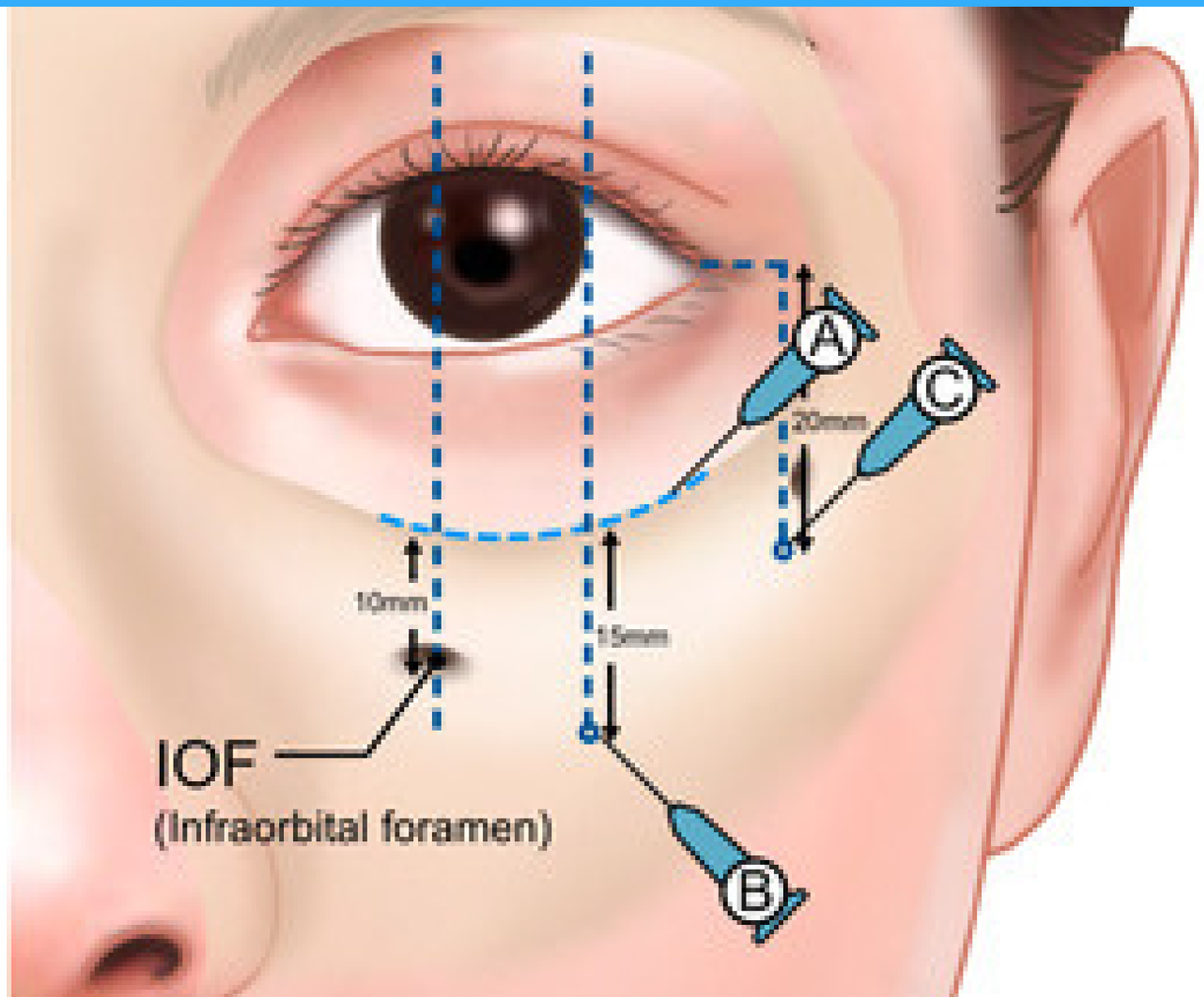
Blepharoplasty



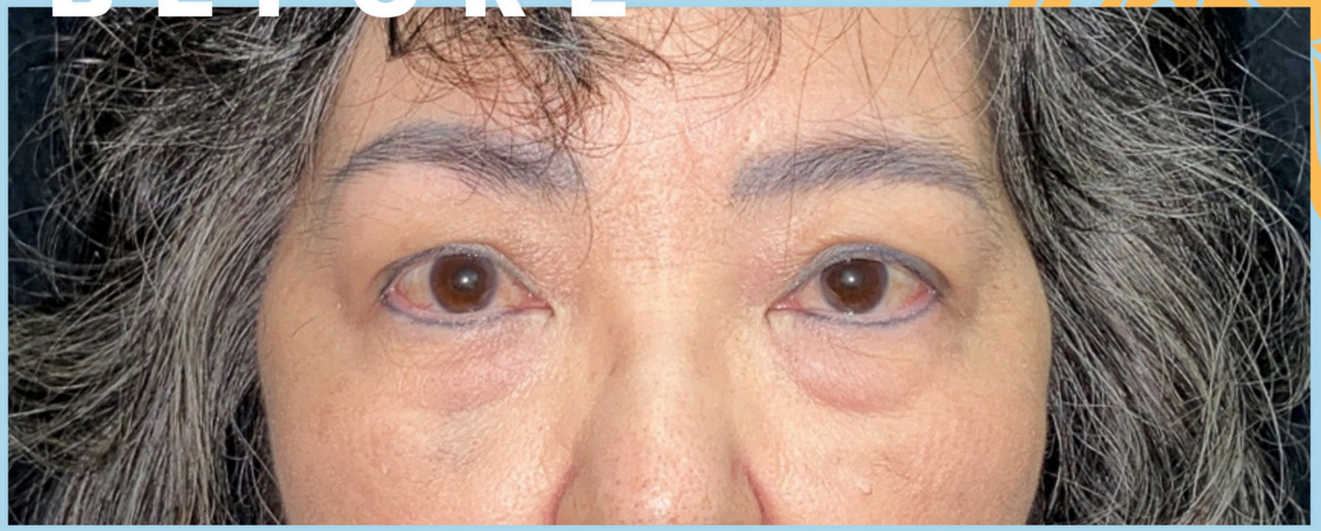
- SKIN AND ORBICULARIS
- CORRECT STEATOBLEPHARON WITH SELECTED FAT REMOVAL
- FAT TRANSPOSITION OR FAT IMPLANTATION

Lower Eyelid FILLER



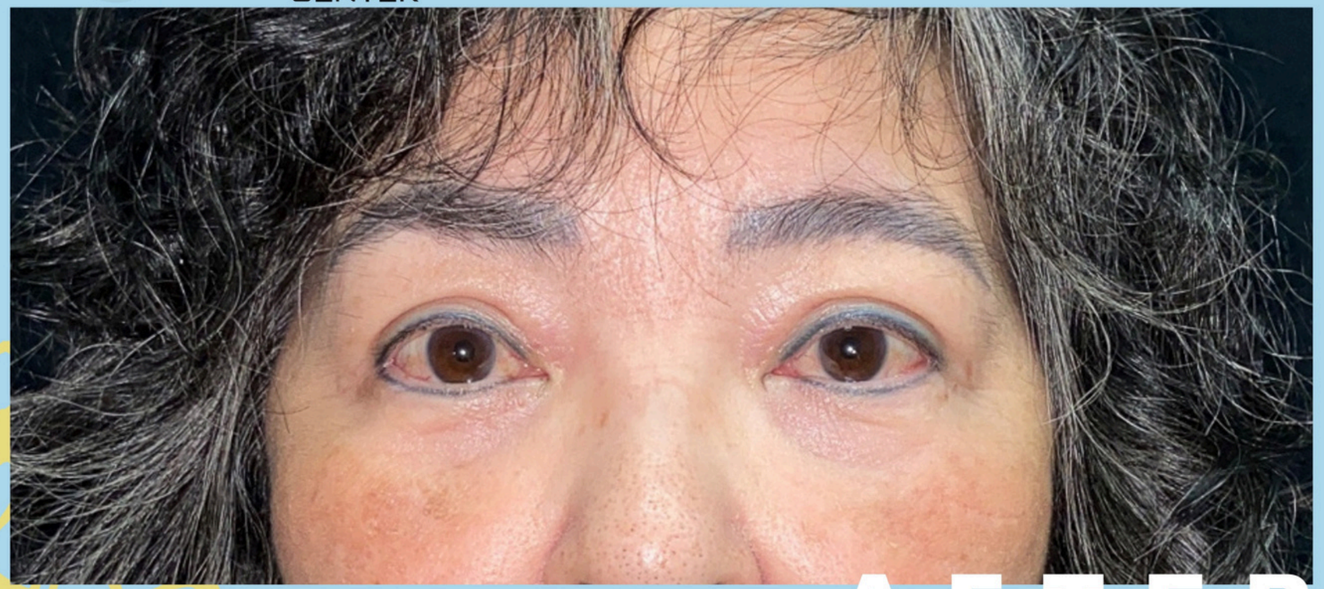


BEFORE



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AFTER

Lower Lid Blepharoplasty

Questions???

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Thank you!