

Lower Eyelid and Midface Rejuvenation

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Abstract

Keywords

- ▶ lower eyelid blepharoplasty
- ▶ lower eyelid rejuvenation
- ▶ lower eyelid suspension
- ▶ midface rejuvenation
- ▶ trichloroacetic acid peel

Lower eyelid blepharoplasty is one of the most common procedures in aesthetic plastic surgery. Although patients desiring lower eyelid blepharoplasty typically describe their problem as “bags in the lower eyelids,” there are many anatomical imperfections that should be assessed. With aging, the youthful single convexity of the lower lid separates into a double convexity with a valley at the intersection of the lower lid and midface. Midface descent further drags this intersection inferiorly, leading to a vertically lengthened lower eyelid. This article discusses how to clinically evaluate lower lid deformities, how to formulate a surgical plan, the preoperative assessment, and surgical markings. The rationale and anesthetic technique for outpatient versus in-office surgery is reviewed, and a detailed step-by-step approach with accompanying figures for lower lid blepharoplasty via a transconjunctival or transcutaneous incision is given. An approach to vertically supporting the lower eyelid is presented.

Lower eyelid blepharoplasty is one of the most common procedures in aesthetic plastic surgery. In the past, rejuvenation of the lower eyelid and the midface were divided into separate discussions. In recent years, authors have realized the typical problem causing patients to present for lower eyelid blepharoplasty lies at the intersection of the lower eyelid and midface, making it difficult discussing rejuvenation of the lower eyelid without discussing rejuvenation of the midface.¹ Perhaps less appreciated is the large number of less common problems that lead patients to present for lower eyelid blepharoplasty or that limit the results of lower eyelid blepharoplasty if not addressed.²

Defining the Problem

An algorithm for addressing lower eyelid blepharoplasty is listening to the patient's concerns, defining the anatomical problem causing these concerns, discussing which concerns can and cannot be improved, and outlining a plan for improvement. Patients presenting for lower eyelid blepharoplasty typically describe their problem as “bags in the lower eyelids.” Despite this uniform description, there are many anatomical imperfections bothersome to patients (▶ **Table 1**). In youth, the lower eyelid appears as a single convex structure

extending from the lower lid margin to the lateral oral commissure. By the time most patients reach their early 40s, the midface tissues begin to visibly descend. The bulkiest of these structures are the suborbicularis oculi fat (SOOF) and the malar fat pad. When these tissues drop, the youthful single convexity separates into a double convexity with a valley at the intersection of the lower lid and midface. The valley is located precisely where the orbital ligament tethers the orbicularis oculi muscle and associated skin to the inferior orbital rim bone, preventing further descent of the structures inferior to the rim.^{3,4} The superior convexity is composed of skin, pretarsal and preseptal orbicularis oculi muscle, and eyelid fat pads. The inferior convexity is composed of skin, orbital orbicularis oculi muscle, SOOF, and malar fat. Patients are usually upright and awake, and when illuminated by overhead lighting, the superior convexity casts a shadow into the valley, causing patients to complain of dark circles under their eyes. Midface descent further drags this intersection inferiorly, leading to a vertically lengthened lower eyelid. The double convex contour deformity is present in most middle-aged or elderly patients presenting for lower lid blepharoplasty, so a successful strategy for treating this deformity is necessary to rejuvenate the lower eyelid and midface.

Table 1 Common Lower Eyelid Anatomical Imperfections and Associated Treatments

Anatomical Imperfections	Associated Treatments
Double convex contour deformity	Filler injections, surgical correction
Excess of skin	Excise skin
Excess of muscle	Botulinum toxin injections, excise muscle
Excess of fat	Excise orbital fat
Pigment deposition	Chemical peel, bleaching creams
Loss of skin elasticity	Chemical peel, temper expectations
Malar festoons	Tighten and elevate midface, excise excess skin, temper expectations
Prominent nasojugal fold	Filler injections
Horizontal laxity	Resuspend the lateral canthus and midface

Clinical Evaluation

Clinical evaluation of the lower eyelid and midface is directed at cataloguing all anatomical imperfections contributing to the loss of a youthful appearing lower eyelid. Skin thickness and pigment should be assessed. Patients with thick and/or pigmented skin who have the double convex contour abnormality are the best candidates for filler. When the skin is thin and relatively fair, it is more likely that filler injected into the lower eyelid will be visible beneath the skin. An excess of skin needs to be differentiated from loss of skin elasticity, as both appear the same with a cursory examination. Pinching lower eyelid skin between the thumb and index finger and pulling it superiorly to see if it can be draped over the lower lid margin is a useful exercise to check for skin excess. If the problem is loss of elasticity, skin will not easily drape over the lid margin. It is important to differentiate between loss of elasticity and excess of skin, as excessive skin is easily treated but with loss of elasticity, expectations should be moderated. To evaluate if there is excessive or overactive orbicularis oculi muscle, the patient is asked to make an exaggerated smile. If smiling causes a scroll of tissue in the lower lid, the patient is shown this phenomenon in a mirror and asked if it is bothersome. If annoying, it can be treated with botulinum toxin injections or surgical debulking. It can be difficult differentiating excessive fat in the lower eyelid from the much more common double convex contour deformity. Fat is more likely to be excessive if (1) the superior convexity extends further from the face than the inferior convexity, (2) the patient had lower eyelid bags prior to 30 years of age, (3) lower eyelid bags developing at an early age is a family trait, (4) the location of the central or medial lower eyelid fat pad is readily visible through the lid, (5) there is excessive fat in the upper eyelid, (6) the patient has a history of taking medications such as pioglitazone (Actos [Takeda Pharmaceuticals, Osaka, Japan]) and rosiglitazone maleate (Avandia [GlaxoSmithKline, Philadelphia, PA]), which can cause eyelid or orbit fat deposition.⁵

Lower eyelid pigmentation must be distinguished from a shadow cast in the valley, as shadowing resolves with treatment of the double convex contour deformity whereas pigment may become more prominent. To make this

differentiation, turn down the room lights and front illuminate the patient with a muscle light or flashlight. Frontal lighting resolves dark circles caused by overhead lighting whereas pigment will not alter. Most surgeons take flash photos with the flash directed toward the frontal plane. This is why the double convex contour deformity is much more evident when observing the patient in overhead lighting compared with flash photos. When lower eyelid pigment, malar festoons, loss of skin elasticity, or a prominent nasojugal fold is present, these issues are pointed out to the patient, who is counseled that they may not improve much with surgery or may require additional treatments after surgery.

Day-of-Surgery Examination

Perhaps the most crucial time to perform a complete examination of the lower eyelids is on the day of surgery. On those mornings, all preoperative photos of the patient are reviewed. A plan is made based on the photos without looking at prior notes. This plan is then compared with the plan in the clinic notes. If the morning-of-surgery plan is discordant with the clinical note plan, the final plan is deferred until the patient is examined again in the preoperative area.

In the preoperative area, the eyelids are marked with the patient in an upright sitting position. The first marks the center of the valley between the two convexities. The lower lid fat distribution is noted. If the central or lateral fat pads are prominent, they are marked with a series of X's, with more X's indicating a larger fat resection. A skin pinch test is performed. If there is excessive skin or a plan to excise some orbicularis oculi muscle, a mark is made parallel to the lower lid margin 2 to 3 mm inferior to the eyelashes. If no excess of skin is present and muscle is not to be excised, a trans-conjunctival approach is taken. In nearly all cases of lower lid blepharoplasty, lateral canthal resuspension and midface resuspension via an upper lid incision are performed. In the atypical case when there is no simultaneous upper lid blepharoplasty, a mark over the lateral third of the upper lid crease indicates extending a lateral upper lid incision 2 mm past the lateral canthal angle. When performing an upper lid blepharoplasty, the upper eyelid incision is not modified to gain

access for canthal or midface resuspension. If a lower lid trichloroacetic acid (TCA) peel is planned after lower lid blepharoplasty, the area to be peeled is marked, typically extending 2 cm beyond the inferior and lateral orbital rim. Full-face peels are more commonly performed.

The Standard Transconjunctival Procedure

It is preferable performing lower eyelid blepharoplasty surgery and midface-lift surgery in an outpatient surgical center, where an anesthesiologist sedates the patient. If cost is a concern, healthy patients who do not chronically take pain medication are given the option of having surgery in an office operating room using oral sedation. In the office the patient is medicated with oral celecoxib 200 mg, hydroxyzine 50 mg, and triazolam 0.25 to 0.375 mg. Local anesthesia consists of a 50:50 mix of 2% lidocaine with 1:100,000 epinephrine and 0.75% bupivacaine with 0.4 mg/mL of dexamethasone injected via 27- or 30-gauge needles. When performing the procedure with oral sedation in the office operating room, a series of 1-mL syringes is used to inject local anesthetic for a slow and thus less painful injection. The plane of injection is critical for intraoperative patient comfort. The areas of skin incision are injected in the submuscular plane by gliding the needle beneath the area and injecting 1 mL per incision site. About 0.5 mL is injected into each of the lower eyelid fat pads via a transconjunctival approach. For all other injections, the needle is passed perpendicular to the skin and local anesthetic is injected in a preperiosteal plane. About 2 mL of local anesthetic is given in this fashion over the lateral and inferior orbital rim, and an additional 2 mL is injected over both malar prominences.

A corneal shield is used in all eyelid procedures to avoid inadvertent damage. To expose conjunctiva, the lower lid margin is reflected inferiorly and anteriorly from the globe with a four-prong lacrimal rake. Transconjunctival incisions are made with curved Stevens tenotomy scissors and deeper dissections are performed with a monopolar Colorado microdissection needle. The incision is made in the depth of the fornix, with an adjustment made for any fornix shift toward the globe with retraction. The initial incision is carried through conjunctiva and lower eyelid retractors across the entire length of the lower eyelid (→ Fig. 1). A 4-0 silk suture on a C-1 needle is passed twice horizontal mattress style through the conjunctiva and lower lid retractors and placed on superior traction.

Dissection then proceeds inferiorly toward the orbital rim in the preseptal plane anterior to the orbital septum and posterior to the orbicularis oculi muscle. Care is taken to leave the septum intact while separating it from the orbicularis oculi muscle so orbital fat does not prolapse anteriorly through the septum. This is facilitated by stroking the septum superiorly with two cotton-tipped applicators while retracting the lid margin and orbicularis oculi inferiorly with a Desmarres retractor. In some cases the septum will easily separate from the muscle; otherwise, the Colorado needle is employed. Dissection continues in this preseptal plane until the white band of the arcus marginalis is seen. An arteriole



Fig. 1 The right lower lid margin is retracted inferiorly with a four-prong lacrimal rake. The transconjunctival incision through conjunctiva and lower lid retractors is started in the depth of the central fornix and extended across the lower eyelid.

and nerve often cross perpendicular to the arcus marginalis in the center of the eyelid (→ Fig. 2). The arteriole is cauterized with bipolar cautery. Strong inferior traction is applied with a Desmarres retractor to the orbicularis oculi muscle, which is attached to the inferior orbital rim via the orbital ligament (→ Fig. 3). A Colorado needle is then inserted just beneath the orbicularis oculi to release the muscle from the orbital ligament. This release is performed across the entire lower lid, extending along the lateral orbital rim to the lateral canthal tendon (→ Fig. 4). The Colorado needle should not be inserted more than 5 mm inferior to the orbital rim to avoid damaging the infraorbital nerve. A periosteal dissector is then inserted ~1.5 cm inferior to the rim in the plane just created and is used to tent the orbicularis muscle away from the rim, releasing any remaining adhesions to the orbital rim. When

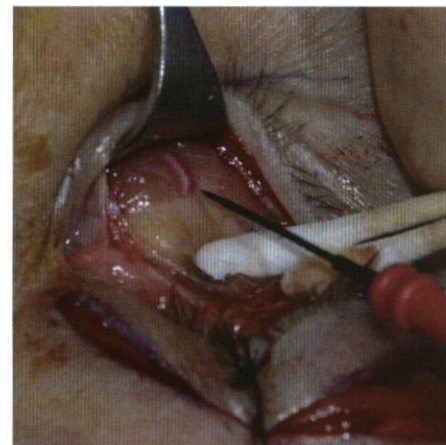


Fig. 2 A 4-0 silk traction suture is placed through conjunctiva and lower lid retractors for exposure, and the septum is kept intact. Dissection proceeds inferiorly toward the orbital rim in a preseptal plane between the orbital septum and orbicularis oculi muscle. A central arteriole and nerve are often seen crossing perpendicular to the arcus marginalis in the center of the eyelid.

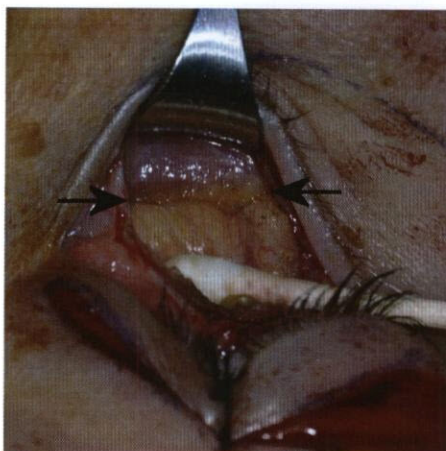


Fig. 3 Arrows point to the medial and lateral edges of the orbicularis oculi retaining ligament. Strong inferior traction is applied with a Desmarres retractor to the orbicularis oculi muscle, which is attached to the inferior orbital rim via the orbicularis oculi retaining ligament. The septum is stroked superiorly with cotton-tipped applicators to separate it from the orbicularis oculi muscle and inserts onto arcus marginalis just posterior to the retaining ligament.

this dissection is complete, the orbicularis oculi muscle with the associated SOOF moves superiorly and the tissue formerly attached to the orbital ligament now lies about 1 cm superior to the orbital rim.⁶ The degree of superior movement of the orbicularis oculi muscle correlates well with the vertical shortening of the lower lid seen postoperatively. It is also apparent during surgery that a thicker layer of soft tissue composed of orbicularis oculi muscle and SOOF now rests where the valley between the two convexities formerly lied.

The eyelid fat pads are then released. With the silk traction suture still in place, forceps are used to gently place superior traction on the intact orbital septum. Stevens scissors are inserted parallel against the inside lateral inferior orbital rim with the scissors curved away from the inferior oblique



Fig. 5 Stevens scissors are inserted parallel against the inside lateral inferior orbital rim, with care to curve anteriorly away from the origin of the inferior oblique muscle. The orbital septum at the arcus marginalis is carefully cut, keeping the eyelid fat pads attached to the septum as a fat pannus.

muscle insertion. The orbital septum at the arcus marginalis is carefully cut, keeping the eyelid fat pads attached to the septum as a fat pannus (→ **Fig. 5**). Thicker bands of tissue between the septum and lower lid retractors are severed with Stevens scissors to prevent lower lid retraction (→ **Fig. 6**). By leaving the septum intact, fat is prevented from prolapsing anteriorly and is instead directed inferiorly (→ **Fig. 7**). If the lateral fat pad is prominent, orbital fat within the inferior lateral orbit is grasped, pulled anteriorly and trimmed. Similarly, if the central fat pad is enlarged, orbital fat is grasped inside the central orbital rim, pulled forward and trimmed, leaving the central fat pad intact and attached to the septum. Leaving the eyelid fat pads intact and removing the deeper orbital fat is less likely to leave an irregular contour, just as

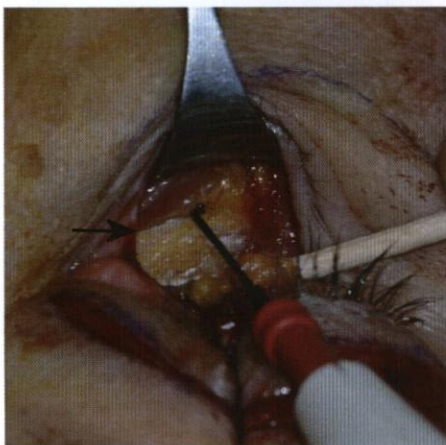


Fig. 4 The black arrow points to the medial edge of the orbicularis oculi retaining ligament, which is lysed with monopolar cautery. This release is performed across the entire lower lid, extending along the lateral orbital rim to the lateral canthal tendon.



Fig. 6 Vertical adhesions remaining between the septum and the lower lid retractors are severed to reduce the risk of lower lid retraction.



Fig. 7 Intact septum with attached fat pannus. Excessive orbital fat is trimmed from the posterior aspect of the pannus, leaving the septum intact. Two double-armed 3-0 Prolene (Ethicon) sutures on SH needles are woven through the inferior pannus, and the needles are externalized through the lower lid.

leaving a thick layer of fat attached to the skin flap in facelift surgery prevents the same. Two double-armed 3-0 Prolene (Ethicon, Somerville, NJ) sutures are passed through the inferior pannus, and the needle pairs are externalized through the lower lid. Gentle suture traction pulls the fat pannus inferiorly, which is tucked beneath the orbicularis muscle with a cotton-tipped applicator (►Fig. 8). Suture tension is adjusted and the ends are tied, with suture removal around postoperative day 5 (►Fig. 9). We believe more of the improvement of the lower lid is attributed to elevation of the orbicularis oculi muscle and associated SOOF than from



Fig. 8 The fat pannus, denoted by the black arrow, is gently pulled inferiorly with Prolene (Ethicon) sutures and pushed with cotton-tipped applicators over the inferior orbital rim and underneath the orbicularis oculi into a preseptal plane. The sutures hold the pannus in place and elevate the orbicularis oculi muscle. The orbicularis oculi muscle, which is being grasped with forceps, is released from the orbicularis oculi retaining ligament and now lies ~1 cm superior to the inferior orbital rim. It will be locked in this position with the lateral canthal resuspension and by suturing the lateral suborbicularis oculi muscle to the lateral orbital rim.



Fig. 9 This view of the left lower lid shows the tied Prolene (Ethicon) sutures, which are removed around postoperative day 5. The purple ink denotes the preoperative location of the orbicularis oculi insertion to the anterior orbital rim via the orbicularis oculi retaining ligament. The fat pannus lies posterior to the lower lid, filling the hollow and giving a higher lid-cheek junction.

transposition of the eyelid fat pads. Leaving the fat attached to the septum and using only temporary suture fixation prevents lipogranuloma formation in the lower lid, a common problem seen when the fat was detached from the septum and fixated with sutures.⁷ The transconjunctival incision is not closed with sutures. The steps necessary to fixate the lower eyelid orbicularis in the new elevated position are discussed in the upcoming lower lid vertical support section of this article.

Dealing with Excess Skin

We prefer the transconjunctival approach as in our hands it has a lower incidence of chemosis, weakness, and retraction of the lower eyelid when compared with a transcutaneous approach. These issues tend to resolve without intervention but have a longer recovery period when they occur. If the patient has more excess skin than can be managed with a chemical peel, a skin incision is made 2 mm inferior to the lashes in addition to the conjunctival incision. This approach leaves the orbicularis of the lower lid intact and decreases the risk of weakening the lower lid. One must decide how much skin to resect by using a forced traction test. To do so, the skin is grasped in the central lower eyelid with forceps and pulled superiorly to the incision. This is repeated with the skin being grasped progressively inferiorly on the eyelid. As one grasps skin progressively lower on the eyelid, it takes slightly more force to elevate the skin. At some point there is a sudden and distinctly marked increase in the amount of traction required to pull the skin superiorly to the incision. A reference mark is made with a surgical marking pen one-third of the way below the incision and the point of increased traction. The apex of a semicircular ellipse is marked from this reference point to the medial and lateral edge of the incision, and a Colorado needle is used to excise only the redundant skin. In most cases the orbicularis oculi is left intact, but in cases of orbicularis oculi hypertrophy, a judicious amount of muscle is excised.

An Approach to Vertically Supporting the Lower Eyelid

Elevation of the orbicularis oculi muscle at the level of the orbital ligament superior to the orbital rim is the most important part of the lower lid blepharoplasty surgery, as this creates the appearance of a vertically shortened lower eyelid and fills the valley of the double convex contour deformity with a thicker layer of soft tissue. It is uncertain if it is necessary for eyelid fat to remain transposed inferior to the rim to achieve this result. It certainly is not a natural place for eyelid fat to rest. Prior to using the technique where fat is left attached to the septum, when orbital fat was sutured in this location, lipogranulomas and prolonged lower eyelid swelling sometimes occurred. To fixate the lower eyelid orbicularis in the elevated position, an upper eyelid incision is used to complete the release of the orbital ligament along the lateral wall and to suture the inferior lateral edge of the SOOF and the associated orbicularis oculi muscle to the dense periosteum along the lateral orbital wall. The upper eyelid incision is also used to horizontally widen the palpebral fissure and in some cases slightly elevate the outer canthus by performing a lateral canthal resuspension without performing a canthotomy.⁸

In most patients, upper lid blepharoplasties are performed with removal of only lid skin. If upper lid blepharoplasties are not performed, an incision is made over the lateral one-third of the eyelid crease, extending ~2 mm beyond the lateral canthal angle. A Colorado needle is used to deepen the incision to the preperiosteal plane over the superior and lateral orbital rim. Care is taken to leave the periosteum intact, as baring the periosteum can cause skin dimpling. Stevens scissors are inserted in the plane between orbital periosteum and the posterior layer of the galea to elevate the eyebrow fat pad. Dissection proceeds circumferentially from the superior orbital rim where the plane is easily identified to the lateral orbital rim where one must be in the proper plane between muscle and periosteum or risk damage to the motor innervation of the orbicularis oculi muscle. Just above the lateral canthal tendon there are dense attachments of the orbicularis oculi muscle to the superior extension of the orbital ligament. Sharp dissection is used for a few millimeters to detach the orbicularis oculi muscle from the orbital ligament, and from this point inferiorly the Stevens scissors are turned sideways. Blunt dissection by vertically spreading the scissors frees orbicularis oculi muscle from the orbital ligament along the lateral orbital wall. The lateral periorbital and the posterior limb of the lateral canthal tendon are kept intact. Dissection proceeds in this plane inferiorly until it joins with the preperiosteal pocket previously created via the lower lid incision. The osteocutaneous ligaments over the malar prominence are released by vertically spreading the scissors. Fixation is begun by passing a 4-0 polydioxanone or polypropylene suture on a P3 needle through the upper lid incision in the plane between muscle and periosteum and exiting 1 mm inferior and lateral to the myocutaneous junction of the lateral

canthus. The suture is then directed laterally back through the same hole so it engages the inferior limb of the lateral canthal tendon, at which point the needle is directed posteriorly and superiorly so it emerges along the lateral orbital rim posterior to orbicularis oculi muscle. The suture is externalized through the upper lid incision, and two four-pronged lacrimal rakes are used to expose the inside of the lateral orbital rim at the level of Whitnall's tubercle. The suture is placed through the dense periosteum of the lateral orbital rim and tied in place. This resuspension of the lateral canthus horizontally tightens the lower lid and lengthens the horizontal fissure. If the suture is placed 1 to 2 mm above Whitnall's tubercle, it can also elevate the lateral canthal angle. Lifting the angle more than this is discouraged as it often does not look natural and will cause imbrication of the lids in the postoperative period.

The skin and muscle edges around the lateral upper lid incision are retracted with two lacrimal rakes by an assistant while the surgeon pushes inward on the retracted skin just inferior to the lateral canthal tendon, such that the SOOF and muscle shift toward the retracted upper lid incision. With the superior lateral border of the SOOF thus made visible, it is captured with the same suture material used to suspend the canthus. This suture is then attached to periosteum above and ~1 cm lateral to Whitnall's tubercle. Tightening this suture will pull the SOOF and the tightly associated orbicularis muscle superior and laterally. A couple more reinforcing sutures are placed. The posterior leaflet of the galea and associated eyebrow fat is attached with suture to the superior orbital rim periosteum. If one opens the lower eyelid incision and looks carefully, the orbicularis muscle is now locked in place in a more superior position with the septum and associated fat beneath the muscle. During inspection, hemostasis is obtained with bipolar cautery and all skin incisions are closed with 6-0 plain gut suture.



Fig. 10 Prominent eyelid fat before and after a transconjunctival lower eyelid blepharoplasty with removal of orbital fat from the posterior aspect of the pannus. The patient also had an upper lid blepharoplasty with posterior ptosis correction.



Fig. 11 A woman with lower lid ectropion, laxity, and festoons before and after transconjunctival lower lid blepharoplasty with resuspension of the lateral canthus and midface. She also had an upper lid blepharoplasty with posterior ptosis correction. In many patients with festoons, resuspending the suborbicularis oculi fat pad and associated midface tissue will reduce the festoon.

Chemical Peel

A TCA peel is performed intraoperatively after lower lid blepharoplasty in patients who have a slight excess of skin not excised during the surgery, fine to medium rhytids, loss of skin elasticity, or superficial brown pigment spots. A full-face chemical peel is preferred, as skin changes are typically not isolated to the lower eyelids and the transition between peeled and untreated skin is easier to conceal at the jaw line as compared with the intersection of the periocular region with rest of the face. After completing surgery, the face is wiped clean of excessive oil with alcohol pads, and 25 to 30% TCA is applied with cotton-tipped applicators with great care taken to never pass the acid-soaked applicator over the eyes. The face is peeled in three regions beginning with



Fig. 12 The patient had lower lid laxity and retraction before and after transconjunctival lower lid blepharoplasty with resuspension of the lateral canthus and midface. Note the correction of inferior scleral show, the apparent shortening of the lid cheek junction, and lengthening of the horizontal palpebral fissure. The patient also had an upper lid blepharoplasty.

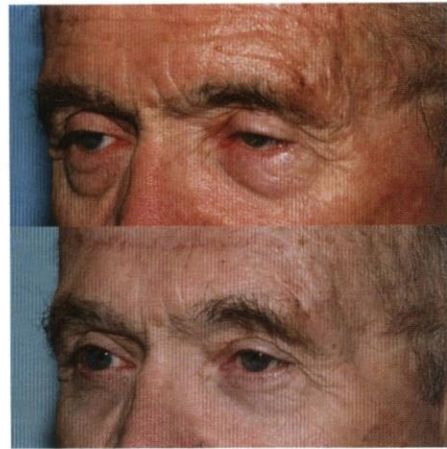


Fig. 13 The double convex contour deformity before and after transconjunctival lower eyelid blepharoplasty with excision of fat. Note the blunting of the double convex contour deformity. The patient also had an upper lid blepharoplasty, external ptosis correction, and lateral browpexy.

the forehead, then the periocular region, and ending with the lower face. In each region when the visible end point of whitening of the skin is evident, the reaction is stopped by wiping away any acid and applying white petroleum jelly. Aftercare includes prophylactic doses of antiviral medication and application of steroid cream twice daily and white petroleum jelly three times daily.

Conclusion

Lower lid blepharoplasty is a common aesthetic procedure. **—Figs. 10–14** show various preoperative and postoperative results. Discerning the specific anatomic reasons why the patient seeks lower lid blepharoplasty surgery and discussing what can be achieved, and more importantly what



Fig. 14 A patient with excessive skin in the lower eyelids before and after transcutaneous lower lid blepharoplasty without release of the orbital ligament or resuspension of the canthus or midface. She also had an upper eyelid blepharoplasty with debulking of the eyebrow fat pads.

cannot, will lead to tempered, realistic expectations. The preoperative discussion must include the expected duration of postoperative bruising, swelling, blurry vision, and common complications to maximize patient satisfaction and minimize surprises. Support the lower lid from above by resuspending the canthus and the SOOF pad and below with the septum and orbital fat pannus. If a TCA peel is merited, consider a full-face peel rather than just the lower eyelids. May you have successful surgeries and happy patients.

References

- 1 Hamra ST. Arcus marginalis release and orbital fat preservation in midface rejuvenation. *Plast Reconstr Surg* 1995;96:354-362
- 2 Goldberg RA, McCann JD, Fiaschetti D, Ben Simon GJ. What causes eyelid bags? Analysis of 114 consecutive patients. *Plast Reconstr Surg* 2005;115:1395-1404
- 3 Kikkawa DO, Lemke BN, Dortzbach RK. Relations of the superficial musculoaponeurotic system to the orbit and characterization of the orbitomalar ligament. *Ophthal Plast Reconstr Surg* 1996;12:77-88
- 4 Muzaffar AR, Mendelson BC, Adams WP Jr. Surgical anatomy of the ligamentous attachments of the lower lid and lateral canthus. *Plast Reconstr Surg* 2002;110:873-884, discussion 897-911
- 5 Lee S, Tsirbas A, Goldberg RA, McCann JD. Thiazolidinedione induced thyroid associated orbitopathy. *BMC Ophthalmol* 2007;7:8
- 6 Couch SM, Buchanan AG, Holds JB. Orbicularis muscle position during lower blepharoplasty with fat repositioning. *Arch Facial Plast Surg* 2011;13:387-391
- 7 Goldberg RA. Transconjunctival orbital fat repositioning: transposition of orbital fat pedicles into a subperiosteal pocket. *Plast Reconstr Surg* 2000;105:743-748, discussion 749-751
- 8 Georgescu D, Anderson RL, McCann JD. Lateral canthal resuspension sine canthotomy. *Ophthal Plast Reconstr Surg* 2011;27:371-375