

# Management of the Lower Lid in Male Blepharoplasty

Jose E. Barrera, MD, Sam P. Most, MD\*

## KEYWORDS

• Blepharoplasty • Eyelid • Transconjunctival • Lower

## ANATOMY OF THE LOWER EYELIDS

The position, volume, and form of the lower eyelid have functional and esthetic implications in the rejuvenation of the aging male face. The lower eyelids serve to protect the visual system while incorporating a three-dimensional transition between the inferior orbital fold and malar and nasojugal folds. Esthetically, the youthful eyelid cheek complex consists of a single mildly convex line on profile. Aging causes descent of the globe and subsequent pseudoherniation of the orbital fat, producing a double convex lower eyelid contour on profile. In addition, increased distance between the lower lid margin and inferior orbicularis oculi muscle attributable to attenuation of the ligamentous support produces skeletonization of the orbital area and exposure of the inferior bony rim.<sup>1,2</sup>

The lower lid margin normally rests at the inferior limbus, with its low point just lateral to the pupil.<sup>3</sup> The malar and nasojugal folds represent the cutaneous insertion of the orbitomalar ligament, a unique bony attachment of the orbicularis oculi.<sup>4</sup> The lateral canthus lies 2 to 4 mm superior to the medial canthus. The adult palpebral fissure averages 10 to 12 mm vertically and 28 to 30 mm horizontally, with the distance from the lateral canthus to the orbital rim being 5 mm.<sup>3</sup>

The eyelid lamella can be divided into anterior, middle, and posterior lamellae. The anterior lamella is composed of skin and orbicularis oculi muscle. The middle lamella is occasionally described as the orbital septum. The posterior lamella is composed of the tarsus, septum, and underlying conjunctiva.<sup>3,5</sup>

The eyelid skin is thin, likely secondary to being devoid of subcutaneous fat. Deep to the skin lies the orbicularis oculi muscle, which is divided into orbital, preseptal, and pretarsal portions. The orbital portion arises from the medial canthal tendon (MCT) and interdigitates laterally with the skin, contributing to crow's feet. The preseptal and pretarsal portions make up the palpebral section, which lies over the tarsal plate and orbital septum. The preseptal and pretarsal segments have two heads, one deep and one superficial. The deep heads arise from the posterior crest of the lacrimal fossa and fossa itself. The superficial ends come from the MCT, which itself inserts into the anterior lacrimal crest. Laterally, these fibers condense to become the Whitnall's tubercle and the lateral canthal tendon.<sup>3</sup>

The orbital septum originates from the arcus marginalis along the orbital rim and is continuous with the orbital periosteum.<sup>3</sup> It fuses with the capsulopalpebral fascia to form a single fascial layer and fuses into the tarsal base. The capsulopalpebral base of the inferior rectus attaches to the tarsal base and allows for lower lid retraction during downward gaze. Further, the inferior oblique muscle also contributes to Lockwood's ligament at its most forward extension (**Fig. 1**). Behind the orbital septum is fat, which is traditionally divided into lateral, central, and medial compartments. The lateral fat pad is smaller and more superiorly placed. The central and medial fat pads are divided by the inferior oblique muscle. The medial fat pad is lighter in color, more fibrous, and more compact. A sizeable blood vessel is often present in the medial compartment.

Division of Facial Plastic and Reconstructive Surgery, Stanford University School of Medicine, 801 Welch Road, Stanford, CA 94305, USA

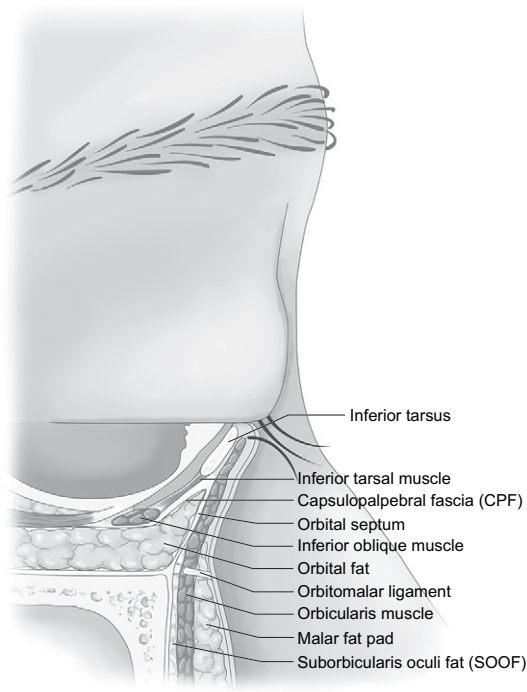
\* Corresponding author.

*E-mail address:* smost@ohns.stanford.edu (S.P. Most).

Facial Plast Surg Clin N Am 16 (2008) 313–316

doi:10.1016/j.fsc.2008.05.001

1064-7406/08/\$ – see front matter © 2008 Elsevier Inc. All rights reserved.



**Fig. 1.** Cross-sectional diagram of the lower eyelid.

Sensory innervation to the lower lid derives from the infraorbital nerve (V2) with minor contributions from V1 and the zygomaticofacial nerve branches of V2. The blood supply comes from angular, infraorbital, and transverse facial arteries. The marginal arcade condenses between the orbicularis and the tarsus.

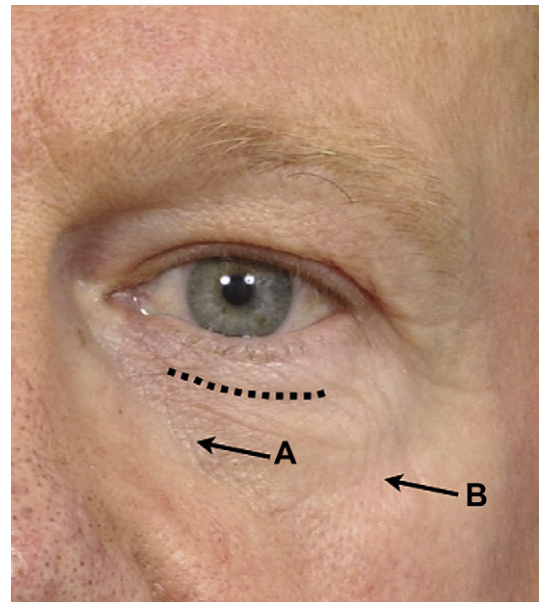
### PREOPERATIVE EVALUATION

A complete and thorough preoperative assessment must be performed when considering blepharoplasty, as has been detailed elsewhere.<sup>6</sup> The evaluation targets the structural anatomy of the lower lid, including an ocular assessment, determination of fat volume, and determination of lower lid support, in addition to a basic ophthalmologic evaluation.

As with any facial plastic surgery procedure, the ocular assessment begins with determination of any asymmetry. Eye position is assessed by the position of the inferior limbus to the lower eyelid margin and the degree of scleral show present. Visual acuity should be documented. Formal ophthalmologic consultation may be warranted in patients with an ocular history (eg, glaucoma, dry eye syndrome, prior ocular surgery). Extraocular movements, corneal reflexes, lagophthalmos, presence of Bell's phenomenon, and visual fields should be assessed. Evidence of scars, festoons, or skin lesions is noted. At baseline, the amount of fine wrinkling is assessed.

Topographic examination includes noting the naso-jugal fold, malar fold, and inferior eyelid fold in addition to fat compartments (**Fig. 2**). Assessment of the fat pockets can be enhanced by directing the patient's gaze while palpating the lower eyelid. In particular, superior gaze accentuates the medial and central pockets, whereas contralateral gaze enhances the lateral pocket. Vector determination, as described by Jelks, should be performed.<sup>6</sup> A neutral vector (one in which the cornea is in line with the orbital rim) or positive vector (cornea posterior to the rim) is desired, whereas a negative vector (cornea anterior to the rim) may limit the amount of orbital fat that can be removed, due to the higher risk of ectropion postoperatively (**Fig. 3**). Recognizing orbital vectors alerts the surgeon to the risk for suboptimal esthetic result, and such information should be shared with the patient preoperatively.

The most common cause of lower lid ectropion after blepharoplasty is failure to recognize lower lid laxity in the preoperative setting.<sup>5,7</sup> Therefore, assessment of the lid supporting structures and vector must be done. One way of doing this is by performing the lid distraction test. Grasping the midportion of the lower lid with the thumb and index fingers and outwardly displacing the lid from the globe is called the snap test. The lid distraction test should also be performed. If the lid margin moves greater than 10 mm, there is abnormal laxity and a lid-shortening procedure may be entertained. Another way is by using the index finger



**Fig. 2.** Topographic anatomy of the lower eyelid and cheek. The dotted line indicates the inferior eyelid fold: naso-jugal fold (A) and malar fold (B).

Download English Version:

<https://daneshyari.com/en/article/4110833>

Download Persian Version:

<https://daneshyari.com/article/4110833>

[Daneshyari.com](https://daneshyari.com)