Sculpting the Eye

by Laura Gater

Technological advances and improved surgical techniques are making blepharoplasty a faster, safer procedure.

Successful blepharoplasty, the second most common aesthetic procedure performed by plastic surgeons, requires meticulous surgical techniques and diligent follow-up.[1] A conservative approach is frequently used to avoid removing too much skin, muscle, or fat around the eyes.

Transconjunctival blepharoplasty is more common today in lower lid blepharoplasty than the transcutaneous approach, according to Guy Massry, MD, an opthalmic plastic and reconstructive surgeon in Santa Monica, Calif. Improvements in technology and increased knowledge of eyelid anatomy and experience with the transconjunctival approach have helped boost its popularity, he explains. Also fat repositioning, rather than removal, is a newer aspect of cosmetic surgery, and is often done in conjunction with blepharoplasty.

"The speed of surgery is better now with the laser," explains Massry, although not all plastic surgeons choose to use a laser because of the costs involved. "If you use a laser, it is cleaner surgery and less blood. If you're comfortable with lasers, it makes surgery quicker and may speed postoperative recovery. On top of that, our knowledge of anatomy is better, as is our understanding of the importance of preoperative procedures," he adds. "Surgeons realize that the best way to avoid complications is to evaluate the eye properly."

Blepharoplasty is often a combination of several different surgical techniques.[2] The patient may just need an upper eyelid blepharoplasty, or a lower eyelid blepharoplasty, or he or she may need both, along with a midface lift, or a blepharoplasty with fat preservation or removal, according to Massry.

Fat, Muscle, and Skin

If the lower eyelid is loose, it will need to be tightened (canthaplasty) to prevent it from pulling down further, according to Paul S. Nassif, MD, a board-certified facial plastic and reconstructive surgeon at Spalding Drive Cosmetic Surgery and Dermatology in Beverly Hills, Calif. Also an assistant clinical professor of facial plastic and reconstructive surgery at the University of South-

ern California School of Medicine and the University of California, Los Angeles, School of Medicine, Nassif uses the "pinch concept" to remove the excess upper eyelid skin. The technique itself is not new, but Nassif revisits it. He injects a mixture of lidocaine with epinephrine and Wydase into the patient's upper eyelid. "I use Von Graffe forceps to cut a pinch of skin on the upper eyelid," Nassif explains. "You can see how much skin you remove because it is pinched up. You know exactly how much you are cutting, so you avoid the risk of under- or over-resection of the upper eyelid skin."

The patient may also need fat, muscle, or skin removed, or a combination of any of these. "There are surgeons that just remove the skin. Some remove the skin and fat, and some do all. You have to identify all the variables," says Massry. "Patients are evaluated for their condition. Do they have extra skin, muscle, or fat? They usually have a combination of these three. Do they have an eyelid crease? Sometimes it is not well established. Identify what is redundant. Note if they have a dry eye condition, and if the eyes completely close. These are a few variables to identify in order to avoid complications."

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Another variable that may cause complications is eyebrow ptosis—when the eyebrows are low and weigh down the patient's eyelids. If so, the physician may need to lift the brow and the upper lid. The eyebrow and the eyelid are continuous, so if one is affected, so is the other.

The ethnicity of the patient is an important part of the preevaluation. Different ethnic backgrounds have different anatomies, especially around the eyes, and skin color may affect scarring, according to Massry.

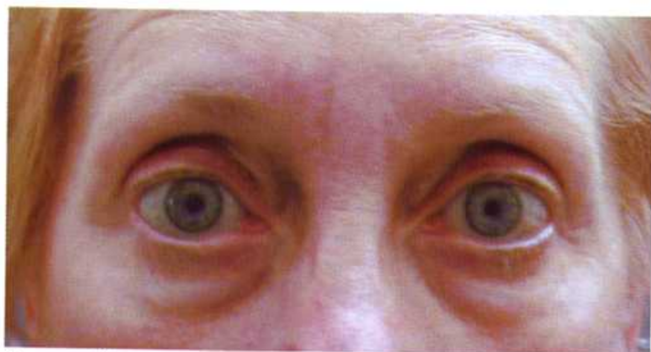
Close assessment of the patient's muscle tone, lid position, skin quality and quantity, ethnicity, fat pad pseudoherniation, lid and periorbital rhytids, cheek position, and symmetry are all critical. Patients should also be seen by an ophthalmologist to determine any defects. Any history of eye disease or abnormality on the eye exam should be further examined.[3]

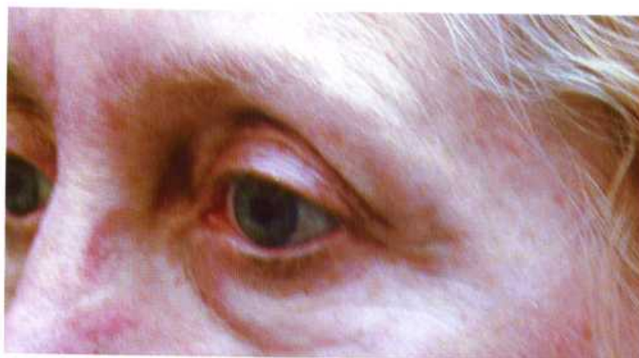
A patient with protruding eyes may have Graves' Disease, a thyroid condition. "Make sure the patient is evaluated by an ophthalmologist or an ocular plastic surgeon," says Nassif. "Assuming that the patient with protruding eyes does not have any contraindications to lower eyelid surgery, oftentimes it is more difficult to reposition the fat because the lower eyelids may be tight."

Massry operates on many patients with protruding eyes, and recommends that this complication be directed to an ophthalmic plastic surgeon. Surgery on patients with this condition requires a special kind of training and technique.

"In a patient with protruding eyes, you have to be much more conservative on surgery. You may have to leave a little extra skin and give up a little cosmetic effect so the eyes can still close," says Massry. "The reality is that you need a specialist to avoid problems."

Once all the variables have been identified, the plastic surgeon can then determine which procedures and techniques will work best. "Today, cosmetic surgery is more scientific and more thought-provoking. It involves gathering information. When someone comes to see me, I gather information," explains





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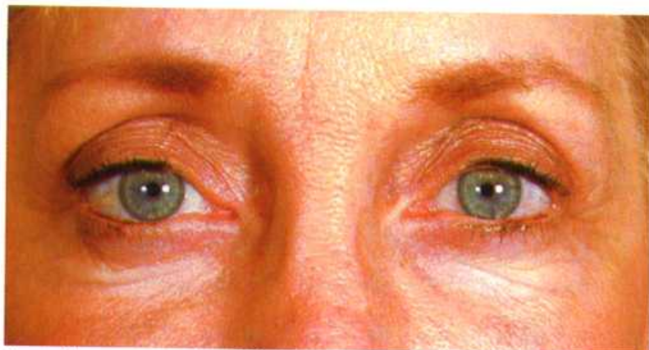

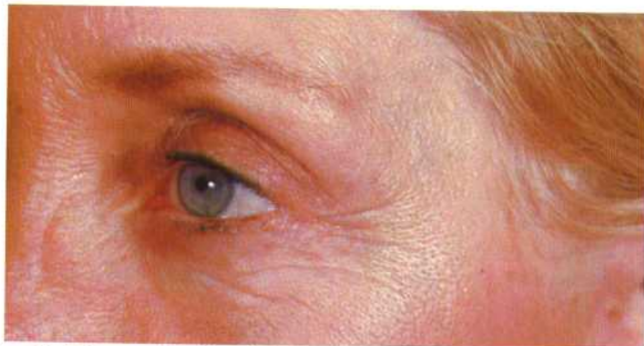

PHOTOS COURTESY OF PAUL S. NASSIF, MD

3 months postoperative. This 58-year-old female has undergone a transconjunctival fat repositioning of the lower lid, an upper lid blepharoplasty, endoscopic brow lift, antigravity lift, perioral laser treatment, and facelift.

Massry. "I refer to it as 'eyelid sculpting,' not eyelid surgery or blepharoplasty. "

All patients should have adequate photographic documentation before blepharoplasty. The five standard photographic views are three frontal views and right and left lateral views.[2]

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Fat Preservation Vs Removal

"During the aging process, the patient's cheeks can become hollow—due to fat atrophy and inferior displacement of the cheek complex (including the malar fat pad) and the suborbicularis oculi fat (SOOF). Additionally, a tear trough deformity may become more prominent," says Nassif. "The cosmetic surgeon may choose to elevate the entire cheek complex, including the SOOF, which will give the lower eyelid complex a more youthful look. This procedure can be performed in conjunction with a fat repositioning lower blepharoplasty if needed." Lower lid fat repositioning is complex, Nassif adds, and not many physicians do it because of possible complications and the technical difficulty of the procedure.

Massry agrees that fat should be repositioned rather than removed. "If you can, always remove fat from the inside of the eyelid," advises Massry. "We have found that as people get older, particularly women, they look more gaunt in the face. We can reposition the fat. Right under the puffiness is the tear trough. Rather than remove all the fat, reposition it in that area. Preserve the fat, do not remove it," he explains.

Potential Problems

If the pre surgical evaluation is meticulous and thorough, then potential variables for complications can be identified before surgery. Infections rarely occur because the eyelids have an excellent blood supply. Certain ethnic backgrounds, such as African or Hispanic, may be predisposed to scarring, which usually depends on the thickness of the skin and tension of the closure, according to Massry.

Asymmetry is another possible complication. "There are no two people whose eyes are equal," states Massry. "If it is noticeable, then it will require minor revision a few months after surgery."

The inability to close the eye can be a serious complication, Massry adds, which results if too much skin and/or muscle is removed during surgery. The lower lid can also be pulled down too far, resulting in scleral show.

Postoperative bleeding can be dangerous. Hematomas are rare, but always a possibility. A retrobulbar hematoma can cause the eye to swell and harden, but the area can be opened and the blood drained. It can cause loss of vision if not properly treated.

Dry eye usually occurs just during the postoperative period; double vision may also occur, which is typically also a concern due to the ointment given to patients to use after surgery.

"Complications can be addressed and fixed," Massry says, and the best way to avoid them, or at least minimize them, is to prepare meticulously. "Always underestimate the results," Nassif advises. "If the patient is happy with your underestimation of the procedure and you hit a home run, then you're great. Some of these procedures are not for the occasional surgeon and should be performed by cosmetic surgeons who understand the anatomy and have the proper training and experience."

"You have to be very conservative when taking any skin out at all," emphasizes Massry. "In the best of hands, there will be complications. If you want to reduce the incidence of complications, do it right."

"Most bruising and swelling are gone in about 10 days," says Massry. "Total healing takes time, about 3 months or so. Right after surgery, patients need to use antibiotic ointment and ice compresses on their eyes. Their daily routine is okay to resume, but no exercise."

The amount of bruising from blepharoplasty varies from patient to patient. Those who wear contact lenses will not be able to wear them for about 2 weeks, and then they may feel uncomfortable for awhile. Patients' eyes may be sensitive to sunlight, wind, and other irritants for several weeks. Patients should be told to avoid activities that raise their blood pressure, such as rigorous sports, for about 3 weeks.[1]

Plastic surgeons will need to monitor their patients' recovery closely for the first week or two, to ensure they are following instructions closely in order to avoid complications and encourage smooth recovery. ■

About the Author

Laura Gater is a contributing writer for *Plastic Surgery Products*.

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