

Upper and Lower Blepharoplasty and Ptosis Repair

When an excess of skin and/or fat, known as dermatochalasis, is present in the eyelids, patients may desire surgical correction for visual, comfort or cosmetic reasons. It can involve either the upper and/or lower eyelids. Surgical correction is known as blepharoplasty. Ptosis is present when the margin of the upper eyelid sags closer to the pupil, either separately or in combination with dermatochalasis. Ptosis repair may be combined with blepharoplasty.

Due to a combination of factors: heredity, aging, chronic allergies, thyroid disorders, smoking and fluid retention, certain medications (steroids), wearing gas-permeable contact lenses and injuries, the skin and delicate structures of the eyelids begin to stretch. When the upper eyelids are involved, the fold of skin, which generally is well above the eyelashes, tends to rest on or over the eyelashes. The actual margin of the eyelid may drop down closer to or actually cover the pupil (ptosis). There may be puffiness of the tissue due to fluid retention or a forward herniation of the normal fat around the eye. The patient then experiences a tired, heavy feeling from muscular fatigue, especially in the forehead, from the need to raise the eyebrows. Additionally, the overhanging skin may cause interference with peripheral vision, either to the sides or above. This necessitates raising the eyebrows in order to see more clearly, which is often noted when looking down to read. In more advanced cases, the chin is tilted up slightly in order to look below the droopy eyelid. The same underlying factors are responsible when the lower eyelids are involved. The lower eyelid is suspended to the bone toward the nose and ear by tendons, which support the eyelids much the same way a hammock is suspended. If one or both tendons stretch for any of the aforementioned causes, the edge of the lower eyelids may sag below the cornea causing a pooling of tears on the eye, or occasionally, dry eye symptoms due to exposure of the delicate surface structures to the air. The fat below the eye will bulge forward causing a puffy tired appearance to the eyes. Finally, there may be pockets of fluid just above the cheekbones known as festoons.

The eyebrows themselves may be ptotic due to a combination of forehead laxity and stretching of the supporting ligaments to the orbital bone above the eye. This is sometimes difficult to detect if the forehead is being raised to compensate for the eyelids. When the eyes are closed, the need to compensate is removed and one can see the brow drop to its true resting position. If it is not corrected at the time of ptosis repair or blepharoplasty, the eyebrows will appear to be too low postoperatively because the compensating force has been removed. Therefore, it is best to repair the eyebrows at the same time (browpexy).

Additional Testing and Documentation

If the upper eyelid is involved, it is necessary to determine if the peripheral vision is affected. An office instrument, known as a perimeter, is used to measure the peripheral vision in the upper one-half of the field of vision. Each eye is tested individually. The patient is instructed to look at a central target while lights are briefly flashed on the screen in different locations. If the light is seen, the patient pushes a buzzer. Conversely, if the droopy eyelid blocks the light from being seen, no response will be made by the patient. In this manner, the extent of visual loss is mapped out. Insurance companies use this information in their determination of whether the surgery is for visual or cosmetic reasons. Photography is likewise required to document the resting positions of the eyelids. Whether or not the eyebrows need to be raised will also be documented. Your insurance policy, not the surgeon, establishes the criteria used to determine if surgery will be covered.

Medication

Many patients take medication intended to act as anticoagulants (blood thinners). They will cause excessive bleeding during surgery and considerable bruising postoperatively. Therefore, these medications must be stopped before surgery unless it would be deemed unsafe. It is necessary to discontinue the use of aspirin or any product containing it 10-12 days prior to surgery. Coumadin and Plavix must be stopped three days prior to surgery. Other supplements such as St. Johns Wort, ginkgo biloba, Chinese black fungus and vitamin E must be discontinued one-week prior to surgery. There may be other medications affecting blood clotting which will be discussed at the time of consultation. The discontinuation of prescribed medications will be cleared with your prescribing physician.

Surgery

Outpatient (same day) surgery is appropriate for these procedures. Local anesthetic is used rather than general anesthesia because it is advantageous for the patient to be able to open and close his or her eyes to accurately judge the eyelid position as the muscles are tightened or skin removed. Intravenous sedation is often added to minimize any awareness of the anesthetic injections and lessen anxiety. However, intravenous medications can only safely be administered at a surgery center or hospital where monitoring is possible. If surgery is to be performed in the office setting, oral sedatives may be taken prior to surgery to relax you. While the anesthetic is taking effect, the face is washed with an antiseptic solution known as Betadine (unless there is a known allergy to iodine) to minimize the risk of infection. It is imperative that no eyelid or facial makeup be worn the day of surgery. It may both contaminate and tattoo the wound permanently. Sterile drapes or towels are used to cover the face and hair. In the upper eyelid, the incision is made within the natural eyelid skin crease above the eyelashes. In this way, the incision will ultimately look like the natural crease once it heals. The incision itself can be made with a scalpel, radiofrequency cautery or CO2 (carbon dioxide) laser. The advantage of the CO2 laser and radiocautery is that they cauterize the tissue instantaneously with minimal bleeding. Ptosis repair (levator muscle advancement) and blepharoplasty are two separate procedures. They can be performed individually or in combination with each other. If only ptosis is present, the incision will be made in the central portion of the lid crease in order to expose the levator muscle. Sutures are used to tighten the muscle, thereby raising the eyelid. You will be

asked to repeatedly open and close your eyes at this stage to judge the position.

If there is an excess of skin, with or without ptosis, the incision will extend across the entire eyelid. When necessary, excess fat causing bulging of the eyelid is removed. The excess skin is re-measured by asking you to open and close your eyes, and then removed. Finally, the wound is closed either with fine sutures which usually dissolve in 7-10 days, or, alternatively, skin adhesives may be used in place of sutures. The advantage of adhesive is that it eliminates the repetitive puncturing of the skin from sutures which invariably leads to more bruising and swelling. It will feel rough to the touch on the outer surface but the underlying skin will be absolutely smooth. Once the glue flakes off 7-8 days after surgery, the wound will be closed. However, regardless which method is used, it takes two weeks for a wound to be truly secure. If one rubs the eyelids too aggressively during this time, the wound may split open.

In lower eyelid blepharoplasty, various factors must be considered preoperatively. If herniated or excessive fat is noted, it can be removed through the inner surface of the eyelid (transconjunctival) to avoid a skin incision. If excessive skin is present, an incision is made just below the eyelashes within a naturally appearing crease for the outer two-thirds of the eyelid. If excessive horizontal laxity of the eyelid co-exists, the outer tendon (lateral canthal tendon) is tightened to maintain or return the eyelid to the normal position. If this step is required but neglected, then the lid will be pulled tighter but will sit too far below the eye. Redundant skin is removed with the radiofrequency cautery or laser. The wound is closed with either absorbable sutures as described for the upper eyelid surgery. Overall, skin will appear tighter and more youthful but fine wrinkles will still remain consistent with the remainder of the facial features. If pockets of fluid-filled skin in front of the cheekbone are present preoperatively, it may not be possible to remove them entirely with surgery.

Postoperative Care

In the majority of cases, surgery is performed on both sides during the same procedure. Ice packs need to be applied as much as possible while awake the first 48 to 72 hours to minimize postoperative swelling and bruising. Ice packs, refrigerated gel packs, or plastic bags filled with frozen peas or corn may be used as long as they can be easily molded around the nose and eyes. They are applied for 5 to 15 minutes until it feels too cold and then removed for 5-10 minutes. The day after the surgery, icing should continue for 10 minutes every 60-90 minutes. The following day, this is cut back to every 2-3 hours. Despite icing, there will be swelling and bruising by the following morning. The amount varies from person-to-person despite the best techniques used. While it results from the surgery itself, swelling and bruising is a truly idiosyncratic reaction that varies considerably from person to person. It is influenced by advancing age (because the skin is thinner and the blood vessels are more fragile), the use of certain medications such as blood thinners or steroids (which also makes blood vessels fragile), the particular type of surgery involved and individual clotting factors. While the appearance may be alarming to some patients the following morning, it infrequently causes any real problems other than the short-term appearance. It will improve each day so that approximately two to three weeks after surgery, the swelling and bruising will not be all that apparent by casual observers. After one week, the position of the eyelids can be judged and minor adjustments may be required in the office to balance their height. It takes four to six months (occasionally longer) for all of

the swelling and redness of the incision to disappear. Makeup may not be applied to the eyelid operated upon for two weeks postoperatively. If only the upper eyelid is involved, makeup may be applied to the lower lids right away. The reverse is true as well. This precaution is necessary because makeup on the wound will contaminate it raising the risk of infection. If makeup becomes embedded within the wound, a permanent tattoo may occur. Finally, if one tries to remove the makeup by rubbing the skin too hard, the wound may break open up to two weeks following surgery. If sutures are used to close the incision, an antibiotic ointment, sometimes combined with a steroid to reduce inflammation, needs to be applied to the wound two to three times a day. If this is done properly, the risk of postoperative infection is less than one percent. If skin adhesive is used, ointment is unnecessary. You may shower the following day as long as you are careful and only briefly wet the face. Hand wash around the eyes and dry the eyelids by patting them gently with the towel. Avoid strenuous activities such as aerobic exercise for one-week. You must avoid bending over at the waist and heavy lifting for 72 hours to minimize the risk of postoperative bleeding. Driving is generally permissible 1-2 days after surgery as long as the vision is normal. Soft contact lenses may be worn after the first postoperative visit. Gas-permeable contact lenses may not be worn for two weeks after surgery because pulling the eyelids to remove the lenses may open the wounds.

Risks of Surgery

No surgery is risk-free. Perfect results cannot be promised or guaranteed. Unrealistic expectations will only lead to disappointment and dissatisfaction. Blepharoplasty will change your appearance but not who you are. It is far safer to be conservative with surgery than overly aggressive. It is easier to remove a small strip of residual excessive skin at a later date than have to deal with the problems of an eye that won't close properly when blinking or sleeping. Approximately 85 to 90 percent of patients are very satisfied with the initial surgical outcome. Up to 10-15 percent of patients need a small postoperative revision or adjustment for best results. These adjustments are generally done in the office from 1 to 16 weeks postoperatively depending on what is necessary. The timing is determined by the need, degree of swelling and inflammation. Slightly less than one percent of patients will develop a wound infection requiring oral antibiotics. Approximately 3-5 percent of patients will break sutures or dislodge adhesive prematurely in the first week requiring repair in the office. A very conservative approach is mandated in patients with dry eyes to avoid worsening the condition. The use of artificial tears and occasionally, insertion of tear duct plugs, may be required temporarily or permanently after surgery. Careful evaluation and meticulous surgical technique prevent the majority of postoperative problems. However, not all situations can be foreseen or avoided. The tissue swelling from the injection of anesthetic before the surgery and variability in the position of the eyebrows makes perfect judgment impossible. Postoperatively, swelling (which is impossible to completely avoid) may stretch the sutures or tissue enough that a revision will become necessary. All available methods to remedy any adverse outcome will be used but it must be understood that these situations are unavoidable no matter how skilled the surgeon or careful the patient is after surgery. It is extremely difficult to achieve perfect symmetry between the two sides. Few people are symmetrical to begin with. The subtleties of surgery and healing are innumerable and greatly influence the outcome. If surgery was performed for visual or reconstructive purposes, then small differences must be accepted. They are generally far less obvious than the original condition. If they are deemed significant enough by the

surgeon, they may be revised at his or her discretion.

Stages of Healing

As indicated earlier, all patients will experience some swelling and bruising postoperatively. For reasons not easily explained, some patients who undergo even very minor surgery can bruise significantly even in the absence of blood thinners. Because of extremely fragile blood vessels. Conversely, some patients undergoing rather extensive surgery may have minimal amounts afterwards. Most bruising will resolve in two to three weeks. Some points must be clearly understood before surgery is performed: complete healing takes four to six months for wounds to fully mature. Up until that point, some thickness and redness of the wound may be present. It usually becomes relatively imperceptible after four months. Small cysts within the wounds may be present for months afterward. These frequently resolve on their own but may be drained in the office as needed. The natural lid fold generally hides wounds in the upper eyelid. Lower eyelid wounds are more difficult to camouflage. Whenever possible, incisions are placed within pre-existing skin lines to minimize their appearance. The eyelid may feel numb around the eyelashes for several months postoperatively until the nerve endings regenerate. Normally, postoperative pain is quite mild. Tylenol for the first 24 hours is usually sufficient to achieve comfort. The swelling is maximal the first morning after surgery. When you lay flat to sleep, body fluid tends to accumulate in the inflamed tissue. Once you assume an upright position upon awakening, some of the fluid will drain away. Antibiotic ointment will sometimes get into the tears and temporarily blur your vision. Swelling itself may put gentle pressure on the eyes and blur the vision. These effects are usually temporary, lasting 1-2 weeks after surgery. However, there is a small minority of patients who experience some minor degree of blurriness for 3-4 months and require a change in glasses at that time. In patients who have undergone refractive surgery (Lasik or PRK for example), the shape of the cornea (ocular surface) may change because of the alteration in eyelid tension against the eye. While rare, this may entail a revision of the refractive surgery itself or the need for glasses again which would be the patient's responsibility.

Insurance

Using the peripheral vision instrument (perimeter), if a visual disturbance can be objectively measured before surgery, insurance companies will often cover all or part of the cost of reconstructive surgery. Generally, if the skin does not hang over the eyelashes, or the margin of the eyelid does not rest too close to the pupil, there will not be enough visual impairment to obtain insurance benefits for upper eyelid blepharoplasty or ptosis repair. Lower eyelid blepharoplasty is rarely, if ever, covered by insurance. Photographs must be submitted to the insurance to further substantiate the impairment and must be correlated with the peripheral vision testing. If the patient tried to "help" the testing results, the apparent incongruity will be noted when compared to the photographs. If insurance criteria are not met, then you will be responsible for the surgical fees if you choose to proceed with the proposed procedure. Some insurance companies will predetermine whether or not they will cover the surgery beforehand. Others, such as Medicare and Blue Cross do not offer this service. This will be discussed with you at the time of consultation. Occasionally,

patients will be insured by national insurance carriers with which we are not familiar. We will make every effort to work with you to determine if the procedure will be allowed. Ultimately though, it is the responsibility of the patient to know what their coverage and deductibles may be. Sometimes, other cosmetic procedures may be performed at the same time as the blepharoplasty or ptosis repair. Payment will be expected prior to surgery for non-covered procedures. It must be understood that the surgeon does not make the decision regarding insurance coverage. It is based on the insurance the patient has chosen.

All the necessary documentation will be submitted to your insurance company to obtain your maximum benefits.

Summary

Blepharoplasty and ptosis repair can be a gratifying experience resulting in improved visual function, decreased excessive tearing when the lower eyelid is repaired and improved appearance. The overwhelming majority of patients are very pleased with the surgical outcome. However, results vary from person-to-person and may require minor revisions. Despite the surgeon's best efforts, it is difficult to achieve perfect symmetry in all cases. The use of anesthetic injections, postoperative swelling, and individual muscle strength all influence the position of the eyelids both during and after surgery. Expectations need to be realistic. If surgery is performed for visual reasons (as stated by the patient) then small cosmetic variations are acceptable if the functional impairment has been corrected. If the lid fold is above the eyelashes and minor disparities are solely cosmetic, then revisions will be at the expense of the patient. Surgery will not change you as a person. If we mutually decide to proceed with surgery, we promise to do our utmost best to achieve the desired results. We cannot guarantee perfection, but will strive for it with each individual's surgery.