compresses further decreases the amount of swelling and bruising during the postoperative period. Poor healing may cause scarring of the eyelid and necessitate further surgery.

One of the more common reasons for a second "revision" procedure is to improve the position or contour (shape) of one or both eyelids following surgery. This secondary adjustment may be required in up to 5% of patients. In some cases we can adjust the eyelid position and/or contour within 12 days of the initial surgical procedure. Wound healing is not impaired by the adjustment and the ultimate outcome also is rarely affected. However, in most cases we recommend waiting three to six months to allow the eyelid(s) to heal from the initial surgery.

Following ptosis surgery, drying of the surface of the eye may develop in some patients. We will discuss this problem beforehand for patients at risk, explain why it may occur, and describe how it is managed. Most patients tolerate the eyelid being more open and do not require prolonged or aggressive treatment of dryness following ptosis surgery. It is exceedingly rare for us to have to reverse ptosis surgery to provide protection for the eye. That option does exist in the unusual circumstance where irritation is not controlled by drops, ointment, blinking exercises, or other means.

Risk of complications can be minimized by closely following our advice on follow-up care during the healing process.

POSTOPERATIVE RECOVERY

After surgery, there is some soreness and very mild discomfort. In most cases, pain is not significant and usually controlled with ice compresses and Tylenol, although a prescription for a narcotic pain medication is provided.

Eyelid skin, being the thinnest skin of the body, tends to swell and discolor rapidly after surgery. Ice compresses reduce swelling and bruising, and will enhance the overall result. You will be instructed to keep your head slightly elevated and to apply cold compresses (quart sized Ziploc bags filled with frozen peas/corn or crushed ice) to your eyelids for several days following surgery. By keeping swelling in check, postoperative pain is also reduced. Thus, ice compresses are a very important part of postoperative care.

Even with ice compresses, the eyelids swell during the first week following surgery. The swelling reaches a maximum on days two through five, but reduces rapidly once the sutures dissolve or are removed (usually between the fifth and seventh day following surgery). Rarely, eyelid swelling may take 4 weeks or more to completely resolve. Any bruising clears over 10-14 days.

The discolored skin can be covered with a light application of foundation make-up. Our aesthetic nurse consultants are available to assist in this effort.

You will be given a prescription for ointment to apply to the wounds during the day and to the eye at night. Application of the ointment will continue until the sutures dissolve or are removed. You will be able to continue any eye drops you were taking prior to surgery. Dressings that block vision are not applied. You will be able to see, but your vision will be slightly blurred for a week or two following surgery.

Eyelid manipulation associated with insertion and removal of contact lenses may interfere with wound healing. Therefore, the wear of contact lenses is not recommended for 7-10 days following surgery. Your surgeon will let you know when it is safe to wear your lenses.

Other postoperative effects of short duration may include excessive tearing and sensitivity to bright light. This also clears within several weeks.

Although you will be up and about several days after surgery, you should not be too active as this will cause additional swelling and pain. Also, driving is not recommended until you are no longer using narcotic pain medication, most of the lid swelling subsides, and your vision improves to a near normal level.

To permit proper healing, you should avoid bright sunlight and wear dark sunglasses to block ultraviolet light. Reading and watching television is permitted. Swimming is not advised although it is perfectly okay to shower and follow your personal hygiene routine. The decision on when to return to work and resume a normal social schedule depends on how fast you heal and how you feel. Most patients are able to return to work in 5-7 days.

CONCLUSION

Patients may seek surgery for droopy upper eyelids for cosmetic reasons and/or when vision becomes affected as the eyelid falls lower on the surface of the eye. There are different surgical approaches depending on the cause and severity of the ptosis, and often involves the removal of excess upper eyelid skin. Since eyelid ptosis repair is often combined with other procedures, we strongly suggest you review two associated TOC brochures, Blepharoplasty and Eyebrow and Forehead Lift. This brochure is intended as an introduction to eyelid ptosis. It may not cover every aspect of your condition or address all questions you may have. For more information visit our websites at **www.toceyeandface.com** or call to schedule an appointment with one of our TOC surgeons.

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Blepharoplasty
Ectropion
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EYELID PTOSIS

TOC
EYE AND FACE

Information Series

OCULOFACIAL PLASTIC SURGERY

Oculofacial Plastic or Ophthalmic Plastic Surgery is a surgical subspecialty of Ophthalmology that seeks to improve physical appearance and function, or minimize disfigurement resulting from accidents, disease, or birth defects. The word plastic comes from the Greek meaning "molding" or "giving form".

EYELID PTOSIS

Ptosis is a classical Greek word for "fall" or "droop", and ***blepharoptosis*** or eyelid ptosis is the medical term for a droopy eyelid. Eyelid ptosis can give an individual a tired appearance and may cause enough visual impairment to be covered by insurance.

This brochure is prepared to provide you with information on the causes, preoperative evaluation, surgical management, and postoperative care of eyelid ptosis.

ANATOMY OF THE UPPER EYELID

The upper eyelid is composed of a number of separate tissue layers. The outer portion of the eyelid consists of a thin layer of skin. Beneath the skin is a layer of muscle tissue, the ***orbicularis muscle***, which functions in eyelid closure, beneath which lies a layer of fibrous and fatty tissue. Behind this fatty tissue lie two important muscles, known as the ***levator muscle*** and ***Müller's muscle***, that serve to lift or elevate the eyelid. These muscles attach to the tarsus, a firm plate of fibrous tissue which functions as the structural backbone of the eyelid. The ***conjunctiva*** is the delicate, moist lining on the inside of the eyelid. It moves over the surface of the eye with each blink spreading the tears and moistening the eye.

CAUSES OF UPPER EYELID PTOSIS

Ptosis is classified as follows:

Involutional ptosis, also known as "age-related ptosis", is one of the more common forms of myogenic ptosis. It is caused by gradual stretching and thinning of the levator muscle tendon within the eyelid.

Myogenic ptosis, or muscle-related ptosis, results from weakness of the levator muscle of the eyelid. It may occur in isolation or in association with systemic disease or other muscle disorders.

Traumatic ptosis occurs following trauma. Injury may affect the lifting muscles of the eyelid or their nerve supply and result in development of ptosis. Mechanical ptosis may occur in the setting of extreme redundancy of the eyelid skin, severe eyelid swelling, or tumors involving eyelid tissues.

Congenital ptosis is present at birth or shortly thereafter. Most often it results from an abnormality in the development of the levator muscle within the eyelid. The levator muscle is "stiff" and will not relax. Because of the stiffness, the muscle does not contract like a normal muscle, causing the eyelid to droop.

PREOPERATIVE CONSIDERATIONS

A consultation with an Oculofacial Plastic Surgeon is the first step an individual should take in the evaluation of eyelid ptosis. You should discuss candidly your expectations about looking and feeling better after surgery. Your surgeon will obtain a detailed history on how your vision may be affected by the position of your eyelid(s). Patients with ptosis are examined to determine the cause of ptosis and to determine the surgical procedure(s) best suited for correction of the droopy eyelid(s). Photographs are taken to document the degree of ptosis and to obtain insurance approval for ptosis correction when the eyelids are impeding vision. Additional diagnostic studies may be recommended in selected situations.

It is important that ocular problems that impede vision, or influence tear formation and/or elimination are recognized before surgery. If detected, these conditions should be corrected before or during ptosis surgery. Such conditions include eyelid ***dermatochalasis*** (excess skin or hooding of the upper eyelid), ***entropion*** or ***ectropion*** (an eyelid that is rolled inward or outward), ***epiphora*** (tearing), and ***keratoconjunctivitis sicca*** (dry eyes).

The general indications for ptosis repair include (1) ptosis causing impaired vision or limiting peripheral vision and, (2) a patient's desire for cosmetic improvement. In general, insurance companies, including Medicare and Medicaid, will approve corrective ptosis surgery when there is visual impairment and photographic confirmation that the drooping eyelid edge is encroaching upon the pupil. Upon completion of the office evaluation, you will be advised if ptosis repair is likely to improve vision or whether corrective surgery would be considered cosmetic in nature. If you meet screening criteria, we will submit information to your insurance company to see if surgery is eligible for insurance coverage. The "pre-determination" process takes from four to eight weeks. Except in the case of some Medicare plans, we cannot schedule surgery until it has been approved. If the insurance company denies coverage, patients may proceed at their own expense. We will provide specific fees upon request.

Fortunately, most cases of upper eyelid ptosis do not represent a vision-threatening problem mandating immediate surgical treatment. One potential exception is severe ptosis occurring early in life. Severe drooping of the upper eyelid in infancy may interfere with visual development and result in amblyopia (lazy eye). Severe ptosis in infants or early childhood is an indication for early intervention. In most cases, however, ptosis repair is optional in nature and may be performed on an elective basis.

During your initial visit specific details of your condition, including the surgical technique to be used, the anesthesia, and where the operation will be performed, are covered. Additional factors to consider before electing ptosis surgery, such as risk and cost, are also discussed.

PREPERATION FOR SURGERY

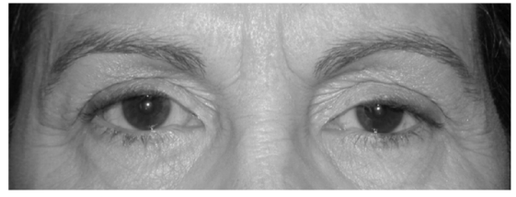
Prior to surgery we will coordinate with your primary care provider and/or cardiologist to manage any blood pressure issues and to discontinue aspirin, aspirin-like medication (NSAIDs), certain vitamins and herbal supplements, and other anticoagulants for 7-10 days prior to surgery.

THE SURGICAL PROCEDURE

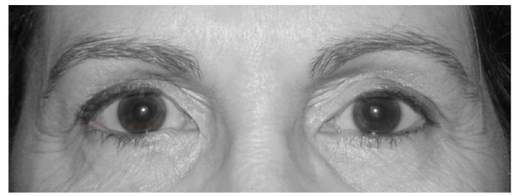
We perform virtually all insurance-covered and cosmetic eyelid ptosis surgery in our on-site ambulatory surgery center, the Center for Aesthetic and Reconstructive Eyelid and Orbital Surgery (CAREOS). This state-of-the-art, certified outpatient surgical facility was designed for your safety, convenience and comfort. It is run by our dedicated and professional nursing staff. Board certified anesthesiologists are available for those patients in need of monitoring and intravenous sedation. Because it is located next to our office, we are able to reduce expenses and pass on the savings to our patients. The option for hospital based surgery remains for young children or patients requiring more extensive work. The decision rests on your desires, medical condition, length and complexity of surgery, and other factors. Our goal is to provide the best possible care in a safe and comfortable environment.

Ptosis surgery is most often performed under local anesthesia with oral sedation in a day surgery setting. This means you walk in, have surgery, and return home on the same day. Intravenous sedation, monitored by a board certified anesthesiologist, may be administered to relieve anxiety and is more common when upper eyelid ptosis repair is combined with lower lid surgery, or other facial procedures. The local anesthetic numbs the area to be operated. The oral or intravenous sedative allows you to be comfortable during surgery, which lasts about an hour depending on the type of surgery being performed. The actual time of surgery varies on the complexity of the case and the amount of work to be done. General anesthesia is usually not necessary, but may be recommended in some cases.

There are two basic approaches used for ptosis correction. Both work well. The first involves an anterior skin incision in the upper eyelid and often includes the removal of a small amount of redundant skin. Fine sutures are used to tighten and reattach the levator muscle tendon to the tarsal plate down near the lashes. These sutures are adjusted during surgery to correct the height, contour and symmetry of the eyelids. In other cases the work is performed on the posterior or back surface of the eyelid. This approach can better control lid contour and can avoid a skin incision, but can only be performed for certain degrees of ptosis. There are specific indications and testing for selecting one or the other approach. Rarely, in patients with severe ptosis, a totally different procedure known as a "frontalis suspension" is used to correct the ptosis. Your surgeon will discuss which procedure is best suited for you.



(a) Ptosis of both upper eyelids



(b) Improvement following ptosis surgery

RISKS OF PTOSIS SURGERY

Ptosis correction and blepharoplasty are the two most common surgeries performed at TOC Eye and Face, numbering in excess of 2,000 operated eyelids per year. These are safe and effective procedures. However, all surgery carries with it risk of complications. You need to be aware of the risks and specific complications associated with ptosis surgery.

The most serious risk, loss of vision, and even blindness, is exceedingly rare. It is so rare we have not encountered this complication in our practice. Other postoperative complications such as infection or blood clots are rare. Bleeding, a serious complication, usually can be avoided by preoperative management of blood pressure and avoidance of aspirin, aspirin-like medication (NSAIDs), and other anticoagulants prior to surgery. Meticulous electrocautery is used during the surgery to seal blood vessels and reduce the risk of bleeding associated with eyelid surgery. Frequent use of ice