Eyelid Surgery (Blepharoplasty)

Anatomy and Description of Blepharoplasty

What is Blepharoplasty?

Blepharoplasty refers to eyelid surgery.

It is a surgical procedure to remove excess skin and underlying fat from the upper eyelids, lower eyelids or both.

Blepharoplasty surgery is customised for every patient, depending on his or her particular needs. It can be performed alone involving upper, lower or both eyelids, or in conjunction with other surgical procedures of the brow or face.

Blepharoplasty can diminish excess skin and bagginess in the eyelid region but cannot stop the process of aging.

Blepharoplasty will not remove "crow's feet" or other wrinkles, eliminate dark circles under the eyes, or lift sagging eyebrows or upper cheeks.

Upper eyelid surgery can help improve vision in older patients who have hooding of skin over the upper eyelids.

Eyelid surgery can add an upper eyelid crease to the Asian eyelid but it will not erase the racial or ethnic heritage.

Surgical Incisions

Incisions in the upper eyelids

An incision is made in the natural skin fold of the upper eyelid. The skin fold of the upper eyelid helps to conceal the scar.

Excess skin and protruding fat are removed. The incision may be closed with a suture that dissolves or a skin suture that will have to be removed after a few days.

Incisions in the lower eyelids

There is a choice of two incisions in the lower eyelids. The incision used will depend on the individual surgeon and the underlying eyelid problem.

Your surgeon may either choose an external or internal incision and/or laser resurfacing.

External incision

An external (sub-ciliary) incision is made in the skin just beneath the lower eyelashes and follows the natural curve of the eye. Fat and excess skin is removed and the incision is closed with sutures.

An external approach to lower blepharoplasty allows the surgeon to remove excess skin of the lower eyelid if required.
Internal incision (transconjunctival)

A trans-conjunctival incision is made on the inside of the eyelid, to remove excess fatty deposits. This incision leaves no external scar. The muscle of the eyelid is not disturbed and the risk of lower eyelid retraction may be reduced.

If there is some skin laxity then laser resurfacing of the lower eyelid may be recommended by your surgeon.
Laser resurfacing

At Cairns Plastic Surgery we use a FRAXEL laser which can be used to rejuvenate the lower eyelid by removing fine lines and tightening the skin.

Laser resurfacing will not remove large amounts of excess skin or bags in the lower lids. Laser resurfacing is commonly combined with the trans-conjunctival approach to the lower eyelid to tighten the skin of the lower eyelid.

The surgery

The surgery is performed either as a day procedure, or can be an overnight stay in hospital. Surgery takes between 1 - 2 hours under a general anaesthetic or a local anaesthetic with sedation.

Ice packs are usually applied after the procedure to assist with the swelling, bruising and discomfort. Vision is blurred initially due to the eye ointment that is used to protect the cornea.

Recovery time varies. It may take up to 2 weeks or longer for bruising to subside. Make-up can be applied to conceal any residual bruising.

The eyes may feel tight, dry, watery and even sensitive to light for 4 weeks or more. During recovery, sunglasses may assist in avoiding the sun and glare, and to help disguise the surgery.

Alternative Treatments

Alternative forms of management include not treating the skin laxness and bagginess in the eyelids by surgery.

Occasionally upper eyelid excess is directly related to brow droop and improvement of upper eyelid skin excess and laxity may be accomplished by a browlift or a forehead lift when indicated. Other forms of eyelid surgery may be needed if there are disorders affecting the function of the eyelid such as drooping eyelids from muscle problems (eyelid ptosis) or looseness between the eyelid and eyeball (ectropion).

Minor skin wrinkling may be improved through chemical skin peels, laser resurfacing and Botox injections.

Risks of Surgery

All surgery is associated with some risk

It is important that you understand that there are risks involved with any surgery. Whilst the majority of individuals undergoing surgery do not experience any complications, a minority do and there cannot be any guarantees in surgery.

With every type of surgery the best possible outcome is sought. The importance of having a highly qualified surgeon and professional surgical team and facility cannot be overestimated.

Risk to benefit

The choice to undergo a surgical procedure should be based on the comparison of the risk to the potential benefit to you.

Make sure that you take time to read and understand how each potential complication can impact on your life and try to make the risk to benefit comparison specifically for yourself.

Informed consent process

Before any surgery, your surgeon should explain to you the risks of the procedure and the possible complications. The informed surgical consent web site will help you to understand the risks that your surgeon has already discussed. It may also bring up other issues that will require a second surgical consultation to clarify. You should not feel that you are being an inconvenience by seeking another consultation and clarification of any questions that you may have.

You should take the opportunity to read this informed surgical consent website carefully and at your own pace. The questionnaire at the end will help to clarify your understanding. There is also opportunity to make note of specific concerns and issues that may be relevant to you so that you can discuss these concerns with your surgeon.
Impact of complications

The risks of surgery involve possible inconvenience if a complication occurs. It may result in an extension of your recovery period and in some cases may need further surgery. Infrequently, complications may have a permanent effect on your final result.

Financial risks

Financial risks are involved with any surgery. Private health insurance is strongly recommended. If you do not have private health insurance then a complication or further surgery will add to the overall cost of your surgery.

Risks related to general health

Your general health will impact on the possible risks of surgery. Many of the risks associated with surgery can be predicted, however, your general health plays a vital role to the outcome of your surgery.

Age carries a greater risk with any surgery. Being overweight carries a greater surgical risk. Other medical conditions such as high blood pressure, high cholesterol, diabetes, heart and lung disease may also increase your surgical risk.

Smoking greatly increases all risks and complications of surgery.

What else?

Finally other factors, that may not be obvious, can influence the outcome of your surgery and the risks are beyond anyone's control.

Patient Photographs

The following are examples of blepharoplasty in different scenarios.

**Patient 1**

- Upper eyelids are heavy and there is excess skin
- 2 weeks after an upper blepharoplasty the scars are still red. The scars sit in the skin crease of the upper eyelid
- 2 weeks after upper eyelid blepharoplasty the eyelids have better definition.

**Patient 2**

- Excess skin of the upper and lower eyelids
- 1 week after upper and lower blepharoplasty bruising and puffiness may still be present
- 3 months following upper and lower blepharoplasties

**Patient 3**

- Puffiness of the lower eyelids and excess skin of the upper eyelid before surgery. Note that there is a greater skin excess of the right upper eyelid
- 2 weeks after upper and lower blepharoplasty a small amount of bruising is present. The scars have almost faded.
Specific Risks of Blepharoplasty

Under correction

Under correction may occur if the amount of skin and fat excess that has been removed results in less improvement than expected. The under correction may have been due to conservatively performed surgery in order to prevent a complication like ectropion.

Occasionally skin wrinkling may be more apparent after blepharoplasty of the lower eyelid. The increased wrinkling relates to removal of fat and follows resolution of swelling.

Further treatment with laser resurfacing or a skin peel may be desired.

Undesirable change in appearance

Minor changes in appearance of the eyelids like hollowness, smaller eyes, rounding of the eyes, a sad look or mild scleral show (seeing the white of the eyeball below the pupil) may occur following eyelid surgery.

Dry eyes

Dry eyes after eyelid surgery may occur. The reasons are due to faster evaporation of tears following surgery because the eyes are open wider, they close incompletely, eyelid blink is temporarily slower and muscles are weaker due to swelling. Dry eyes following blepharoplasty improves with time but may be permanent.

Age, diabetes and hypothyroid (sluggish thyroid) conditions can cause dry eyes before surgery. A dry eye is more likely to be a problem after surgery if tear production is marginal or the eyes are dry before surgery.

If you have dry eyes you should consider blepharoplasty carefully because dry eyes may become worse after surgery and the occurrence of this is not entirely predictable.

The symptoms of dry eyes might include: redness of the eyes; itch; burning; soreness; feeling of something in the eye; photophobia (light sensitivity) and mucous secretion.

Artificial tears and ointment at night may be required. A referral to an ophthalmologist for further treatment of the dry eye may also be necessary.

Double vision

Double vision after blepharoplasty is due to bruising of the tissues surrounding the eye muscles and is usually temporary.

Corneal abrasions

The cornea may be at risk of injury during or after surgery. Dressings, sutures and the inability to completely close the eyes may cause corneal injury. Further treatment of a corneal abrasion may be required and referral to an ophthalmologist will be made.

Corneal injury may present as eye pain, tearing and sensitivity to light.

Lagophthalmos (inability to close the eyes)

Infrequently people experience difficulties in closing their eyelids after surgery. Inability to completely close the eyelids is usually temporary after surgery and is related to skin excision, swelling and stiffness of the eyelids.

If incomplete eyelid closure persists, problems may occur in the cornea due to dryness. Corneal exposure may lead to scarring and visual disturbance. Referral to an ophthalmologist and further treatment may be necessary.

Scarring

The formation of thick or hypertrophic scars on the eyelids is unusual. Scars may thicken if they extend beyond the outer corner of the eye.

Abnormal scars may occur both within the eyelid and deeper tissues causing eyelid mal-position, scleral show or an ectropion.

Scleral show and ectropion

Scleral show and ectropion are complications that relate to lower eyelid surgery and upper lid ectropion is rare. Scleral show and ectropion may be either temporary or permanent.

Scleral show implies retraction of the eyelid. It is present in up to 15% of cases. It appears temporarily 3 to 6 weeks after surgery and normally subsides over a period of weeks.

It is usually present in the outer part of the lower eyelid and produces a lateral rounding of the eyelid. Upward massage of the eyelid, warm compresses, eyelid exercises and taping help to resolve scleral show.

Ectropion is more severe and implies distraction of the eyelid (pulling down) away from the eye. It has an incidence of about 1 in 100 of cases.

Varying degrees of ectropion may occur from distraction of the lower eyelid to lower eyelid eversion.

An ectropion can compromise eyelid function and cause swelling, redness, tearing and irritative symptoms like dry eye, conjunctivitis, a foreign body sensation and light sensitivity.

Many factors contribute to the development of ectropion including lower lid laxity, internal eyelid scarring and individual eye structure (flat cheek bones, large eyeballs).

Further surgery may be required to treat ectropion if it persists despite upward massage, eyelid exercises and taping.
Epiphora (tears)

Epiphora is a condition produced by too much secretion of tears or improper processing of tears. The improper processing of tears may be produced by swelling and weakness of eyelid muscles, ectropion and lagophthalmos (incomplete eyelid closure and corneal irritation).

Excess watering of the eyes is worse outdoors in windy weather and bright sunlight.

Epiphora is usually temporary and resolves within days to weeks unless an anatomical abnormality exists.

Ptosis (droopy eyelid)

A mild ptosis may be present pre-operatively and it may not be noticed because of the presence of excessive fat and skin. Temporary post-operative ptosis is due to swelling and thickening of the upper eyelid. It may take up to 8 weeks to resolve. Permanent ptosis may be produced by injury to the levator muscle (the muscle that lifts the upper eyelid upwards) or adhesions of the muscle after a haematoma. Persistent ptosis may require further surgery.

Wound separation

A gap in the suture line may occur due to swelling or suture unravelling. If wound separation occurs a delay to wound healing and uneven or wide scars may result.

Infection

Infection is rare after eyelid surgery because of the excellent blood supply to the area.

Skin slough

Skin slough (skin loss) is uncommon following eyelid surgery although it may occur after a haematoma.

Skin slough is treated conservatively and healing will be delayed. If an ectropion results then further surgery may be required to treat this.

Numbness

Upper and lower eyelid numbness is usually temporary.

Eyelash hair loss

Hair loss may occur in the lower eyelash area and is due to injury to the hair follicles. The occurrence of this is unpredictable. The hair loss may be temporary or permanent.

Asymmetry

A small amount of asymmetry of the face and eyelid region is normal pre-operatively. Following eyelid surgery these normal variations may become more noticeable.

Other reasons for postoperative asymmetry are swelling, slightly different incisions and the amount of skin excision.

Inclusion cysts and milia

Inclusion cysts and milia relate to skin sutures and occur more commonly if the sutures are left in for more than 4 days.

These small white bumps (milia) may appear and disappear spontaneously. When they persist, they can be treated by further minor surgery.

Dermatological complications

Increased telangiectasia (small burst vessels in the skin) and pigmentation (dark circles) are occasionally seen following surgery. These conditions usually are present to some degree before surgery.

People who have excess bruising and haematoma are predisposed to developing telangiectasia and increased pigmentation post-operatively.

Increased pigmentation is aggravated by sun exposure. Resolution of hyperpigmentation occurs slowly and may take up to one year.

Skin cancers

Skin cancers may occur independently of eyelid surgery.

Ecchymosis and haemorrhage

Bleeding may occur under the skin and result in bruising (ecchymosis) or internally around the eyeball (haematoma). Generalised bruising and ecchymosis may be due to postoperative nausea and vomiting, excessive physical activity, bleeding disorders, poorly controlled blood pressure and smoking. A bleeding disorder, aspirin, anti-inflammatory tablets and mega doses of certain vitamins (vitamin E) can influence blood clotting and cause excessive bleeding.

Diffuse ecchymosis (bruising) of the eyelids spontaneously resolves over 2 weeks and will result in increased scarring.

Small haematomas or collections of blood may occur under the eyelid skin or within the eyelid muscle. Further treatment will be required.

A sub scleral haematoma (red discolouration of the eyeball) is due to a small amount of blood leaking onto the white of the eye. The clinical photo on the right shows a sub scleral haemorrhage. It is unusual but the bright red colour can be alarming. Resolution occurs spontaneously but may require several weeks.

A retrobulbar haematoma is due to bleeding behind the eye and is a rare and serious complication that will require emergency treatment or further surgery. Retrobulbar bleeding is rare and can potentially cause acute visual disturbances including blindness because of pressure on the optic nerve. The occurrence of this
Blindness

This is an extremely rare complication following eyelid surgery and is due to sudden bleeding around and behind the eye (retrobulbar bleeding), obstructing the blood vessels supplying the optic nerve and retina. The risk of blindness has been estimated at 1 in 250,000. Emergency removal of sutures and decompression will be required as emergency surgery if this complication occurs.

Damage to deeper structures

Deeper structures such as nerves, blood vessels, and eye muscles may be damaged during the course of eyelid surgery. Damage to muscles controlling the eye is rare and can cause double vision. The potential for this to occur varies with the type of blepharoplasty procedure performed. Injury to deeper structures may be temporary or permanent.

Expectations

Your expectations may leave you dissatisfied with the results of surgery despite having an adequate surgical result. It is important to discuss your expectations with your surgeon and establish if these expectations can be met before undergoing your surgery.

Long-term effects

Subsequent alterations in eyelid appearance may occur as the result of aging, weight loss or gain, illness, sun exposure, or other circumstances not related to eyelid surgery.

Blepharoplasty surgery does not arrest the ageing process nor does it produce permanent tightening of the eyelid region. Future surgery or other treatments may be necessary to maintain the results of a blepharoplasty.

Risks Common to All Operations

Discomfort and pain

The severity and duration of post-operative pain varies with each individual. Mild to moderate discomfort or pain is normal after any surgery and can be expected after blepharoplasty.

If pain is worse on one side or the other or if the pain becomes severe and is not relieved by pain medication you may have a complication. In this case you should contact your surgeon.

Nausea and vomiting

Nausea and vomiting typically relate to the anaesthetic and usually settles quickly. In some cases persisting nausea and vomiting may relate to pain relieving medication or other medications like antibiotics. Infection may also cause nausea and vomiting.

If nausea and vomiting persist you may develop excessive bruising around the eyelids. You should contact your surgeon if nausea and vomiting persist.

Swelling and bruising

Moderate swelling and bruising are normal after any surgery and can be expected after blepharoplasty. Severe swelling and bruising may indicate bleeding or possible infection. Discolouration from bruising may take several weeks to resolve.

Swelling and bruising are expected to settle faster if you keep your head elevated. You may have to sleep with two or more pillows beneath your head at night. Cool compresses to the eyelids will help.

When sutures are removed gentle massage of the eyelid skin twice a day may help to resolve bruising of the skin.

Intermittent swelling after blepharoplasty may persist for several months after surgery.

Bleeding and haematoma

Bleeding is always possible after any operation. Some bleeding will result in bruising. Continued bleeding may result in continuous ooze from the suture line or may result in a collection of blood under the skin. Rarely bleeding may occur in and around the eye and cause pain and visual problems. If continued bleeding from the eyelid incisions persists or if bleeding in and around the eye occurs you will require treatment.

You should notify your surgeon if bleeding after surgery persists.

Small collections of blood under the skin usually absorb spontaneously. A large collection of blood (haematoma) may produce pressure and complications to healing of the skin.

Most haematomas occur in the first 24 hours and may require surgical drainage in an operating room and a general anaesthetic to drain the accumulated blood.

The presence of a haematoma, even if evacuated, may predispose to complications such as increase scarring of the eyelids (ectropion) and less commonly problems with vision.

Infrequently bleeding can happen 7 to 10 days following blepharoplasty. Possible factors for late bleeding include infection, extreme physical exertion, aspirin ingestion or an un-recognized bleeding disorder.

Aspirin, anti-inflammatory tablets and mega doses of certain vitamins (vitamin E) can influence blood clotting and cause excessive bleeding. It is recommended that you do not take any aspirin, similar drugs like cortis, astrix or non-steroidal anti-inflammatory medications for 10 to 14 days before surgery, as this contributes to a greater risk of bleeding, bruising, swelling and infection. A single tablet is enough to increase the risk of bleeding.

If you take an anticoagulant like heparin or warfarin, you will need to discuss these medications and when to cease them with your surgeon prior to your blepharoplasty surgery.
Inflammation and infection

Infection may occur after any surgery, however it is uncommon after blepharoplasty.

Most infections occur within 3 to 5 days after surgery and may cause swelling, redness and tenderness in the skin around the suture lines. A surface infection may only require antibiotic ointment.

Occasionally an offensive discharge may occur from the suture line. Deeper infections will require treatment with antibiotics. Some deep infections and development of an abscess (collection of pus) will require additional surgery under an anaesthetic to drain the pus.

Infection may cause wound breakdown or skin slough (loss). Both wound breakdown and skin slough will result in delays to healing and possible increase in scarring (and ectropion formation).

Additional surgery to deal with wound breakdown and skin slough will be required. Additional surgery may involve skin grafting. More scarring, and further surgery can be expected in the long term.

Some surgeons will prescribe prophylactic (preventative) antibiotics to be used around the time of blepharoplasty surgery.

Crusting along incision lines

Crusting along suture lines should be prevented with frequent and regular wiping of your suture lines with a cotton bud soaked with water followed by application of antibiotic ointment (chloromycetin ointment) or soft white paraffin. An antibacterial soap (sapoderm, gamophen) may be used.

Careful drying of the suture lines with a cotton bud prior to application of ointment will be required to prevent moisture.

Numbness

Small sensory nerves to the skin surface are occasionally disturbed when the incision for blepharoplasty is made, or interrupted by undermining of the skin during surgery.

Numbness of the skin of the eyelids gradually returns - usually within 3 months as the nerve endings heal spontaneously. Return of sensation may take up to 2 years.

Itching

Itching and occasional small shooting electrical sensations within the skin frequently occur as the nerve endings heal. Ice, skin moisturisers and massages are frequently helpful.

These symptoms are common during the recovery period and may persist for several weeks after surgery.

Necrosis

Necrosis is the formation of dead skin around the suture line. Factors associated with increased necrosis include infection, smoking, and excessive cold therapy.

Occasionally further surgery may be required to remove any non-healed or dead tissue and skin grafting may be required to achieve wound closure.

Delays in healing and unsatisfactory scarring may occur.

It occurs rarely on eyelids.

Wound separation or delayed healing

Any surgical wound, during the healing phase may separate or heal unusually slowly for a number of reasons. Wound separation may occur as a result of infection, wound tension, decreased circulation or smoking.

Some people may experience slow healing due to unrelated medical problems.

Wound separation may also occur after suture removal.

Wound separation will require frequent wound dressings or resutting. Healing will be delayed and recovery time will be prolonged, (days to weeks). The final outcome of surgery may be affected and more scarring can be expected.

Poor scars will result following wound healing problems and additional surgery may be desired 6 to 12 months after the initial surgery to improve scarring.

Increased risk for smokers

Smokers have a greater chance of infection, skin loss (necrosis), and poor wound healing, because of decreased skin circulation. Bleeding and haematoma formation are more common in smokers than non-smokers.

Smoking also predisposes to life threatening complications like deep vein thrombosis (DVT), pulmonary embolism, pneumonia or massive infection.

It is strongly recommended that you cease smoking 4 weeks prior to and 4 weeks after your surgery.

Sensitivity or allergy to dressings and tape

Skin or localised allergies may occur to topical antiseptic solutions, suture materials, soaps, ointments, tapes or dressings used during or after surgery. Such problems are unusual and are usually mild and easily treated. Please advise your surgeon of any skin irritation, itch, blisters or redness that may develop. Allergic reactions resolve after removal of the causative agent and may require additional treatment.
Suture Complications

Suture reaction or local infection may occur when subcutaneous sutures (sutures under the skin) are used. Exposed sutures will require suture removal for local healing to progress.

Milia (small white skin cysts) may occur along the suture line after healing. Milia formation is related to sutures in eyelid skin.

Skin scarring

All surgical incisions produce scarring and although scars are inevitable, some are worse than others and the quality of the final scars is unpredictable and not entirely under the control of the surgeon. Some areas on the body scar more than other areas, and some people scar more than others.

Scars may be worse if there is a tendency to keloid scarring, in the younger person or if there has been a delay in healing due to infection or wound breakdown.

Your own history of scarring should give you some indication of what you can expect. Please ask your surgeon about scar management.

Red and discoloured scars

The appearance of your surgical scar will change during the various stages of wound healing. Eyelid scars usually heal well. Some scars become more red and somewhat raised and excessive between six weeks and three months.

Scars will remain permanently visible to a lesser or greater extent, depending on the outcome.

A brown discolouration in a scar usually settles with time. White scars are permanent and there is no known satisfactory treatment.

Please ask your surgeon about scar management.

Abnormal scars

Abnormal scars may occur even though careful surgical techniques are used and uncomplicated wound healing occurs after surgery. Scars may be unattractive because they are raised, thick (hypertrophic or keloid), stretched (wide), depressed, or of a different colour to the surrounding skin. An abnormal scar may have visible suture marks. Abnormal scars may occur both within the skin and the deeper tissues.

Abnormal scars occur more commonly in some skin types, in the younger patient or if there has been a delay in healing due to infection or wound breakdown. Most scars improve with time but some may require additional treatment.

Thick scars around the eyelid may respond to massage, serial injection of steroid into the scars or surgical scar revision. Wide scars may require scar revision surgery to improve their appearance. Surgical scar revision may be disappointing especially in the younger patient.

Please ask your surgeon about scar management.

Asymmetry

The human body is normally asymmetrical. Despite surgical allowance for correction, the normal variation from one side of the body to the other will be reflected in the results obtained from your blepharoplasty surgery. Perfect symmetry may not be attainable after blepharoplasty.

Injury to deeper structures

Blood vessels, nerves and muscles may be injured during blepharoplasty. The incidence of such injuries is rare.

Post-operative fatigue and depression

It is normal for some people to occasionally experience feelings of depression for a few days after surgery, especially when the early postoperative suture line, swelling and bruising is seen. The post-operative emotional low improves with time. Physical recovery from any operation and anaesthetic is gradual.

The undesirable result

The undesirable result occurs because of limitations of the human tissues and skin. On the other hand you may be disappointed with the results of surgery if they have not met your expectations. Your expectations may leave you dissatisfied with the results of your blepharoplasty, despite having an adequate surgical result. Additional surgery may or may not improve the results of surgery.

The unfavourable result

The unfavourable result may relate to under correction, asymmetry, recurrence of the original problem or scar related problems. Additional surgery may be required to improve your results.

Need for revisional surgery

Every surgery has associated risks and complications that you need to be aware of. Should a complication occur, additional surgery or other treatment might become necessary. Revisional procedures are less predictable and involve more risks. You must consider any revisional surgery carefully after discussion with your surgeon.

The practice of medicine and surgery is not an exact science. Although good results are expected, there is no guarantee or warranty expressed or implied, on the results that may be obtained.

If revisional surgery is required, you may incur further surgical, anaesthetic, pathology and hospital fees. These fees may be covered if you have private health insurance, depending on your level of cover. These fees will be your responsibility; so careful financial planning is required before you embark on any form of surgery.

Private Health Insurance is strongly advised for any surgery. Please speak to your surgeon regarding the costs of treating complications.
Chronic pain

Following surgery, abnormal scarring in the skin and deeper tissues may trap nerves and produce pain. Uncommonly, persistent or chronic pain that is of an unknown or ambiguous cause may develop.

This type of chronic pain may be difficult or impossible to correct.

Long-term effects

There are many variable conditions that may influence the long-term result of your blepharoplasty surgery. Subsequent alterations to the appearance of your eyelids as the result of aging, sun exposure, allergies, pregnancy, illness or other circumstances not related to your surgery.

Additional surgery or other treatments in some cases may be required to maintain or improve the results of your operation.

Deep Vein Thrombosis

A deep vein thrombosis is a blood clot occurring in the deep veins of the legs/calves. It causes pain and swelling in the affected legand is potentially life threatening.

Treatment for deep vein thrombosis is essential and involves blood-thinning agents. Complications of a deep venous thrombosis include clots spreading from the legs to the lungs or heart and may cause shortness of breath, chest pain or death.

If you are undergoing surgery, the risk of deep vein thrombosis relates to the type of surgery and the duration of the procedure. Some people are more prone to developing deep venous thrombosis than others. These people may be of advanced age or people who have had a deep vein thrombosis in the past. Varicose veins are a risk factor as are certain medications like hormone replacement therapy and the oral contraceptive pill.

Smoking increases the risk of forming a deep vein thrombosis as well. Preventive treatment for deep vein thrombosis may be recommended and may consist of compression stockings, early ambulation or blood thinning agents.

Your risk of DVT will be automatically calculated by this web site, and shall be presented to you later.

Anaesthetic related risks

Anaesthetic complications, although uncommon, do occur and should be discussed thoroughly with your anaesthetist prior to your surgery.

Allergic reactions to drugs used in anaesthesia are rare (1 in 10,000).

Systemic reactions may also occur to drugs used during surgery and prescription medicines. Allergic reactions may require additional treatment.

It is possible to get a sore throat from the tube that is used to administer anaesthesia. You may develop a painful or infected intravenous site.

Other anaesthetic complications should be discussed with the anaesthetist.

Life threatening complications

Life threatening (or fatal, in some circumstances) complications like pulmonary embolism, cardiac arrhythmia, heart attack, stroke or massive infection are rare. These complications will require additional treatment.

Pulmonary (lung) complications

Pulmonary complications are uncommon and may occur secondary to either a blood clot starting in the legs (pulmonary embolism), aspiration of stomach secretions or partial collapse of the lungs after general anaesthesia.

Before Your Operation

Organise yourself for after your surgery

- Organise how you will get to and from hospital.
- Arrange to have someone at home with you for at least 2 or 3 days after you leave hospital.
- Organise help with your shopping, laundry, housework, pets, lawns, etc.
- Get all your pre-operative tests.
- Arrange leave from work and any financial chores as required.

Your Health

Surgery and anaesthesia impose stress on your body.

The state of your health will determine how well your body will cope with this stress.

It is important that you maximise your general health by exercising, not smoking and having regular checks with your GP, so that conditions such as hypertension, diabetes etc can be controlled.

Smoking
If you need help to give up smoking, speak to your G.P. who can prescribe medication to help you, speak your chemist who can advise you about nicotine replacement therapies or call the national QUIT LINE on 13 18 48.

**Hospital**

Depending on your pain tolerance and your home situation, it may be in your best interest to stay overnight in hospital. When in hospital you may have a drip for fluid and pain relief. Dressings are likely to be removed before you are discharged from hospital.

**Fasting, fluids, food**

Fasting for surgery means that you cannot eat any food, or drink any fluid, after midnight the night before your surgery. A stomach full of fluid or food will mean that your anaesthetic may be dangerous and your procedure may be delayed or cancelled.

You should have nothing solid to eat, and drink no milk-containing fluids for 6 hours prior to an operation. You may have up to 1 glass of water per hour up to 3 hours prior to surgery.

If you are in hospital a sign over your bed will read “fasting”, “nil by mouth” or “NBM”.

If you take medications in the morning, these should be taken as normal on the morning of your operation with a sip of water at 6 am.

NB. Diabetic tablets and insulin should be withheld while you are fasting. When you brush your teeth in the morning, spit out any water rather than swallowing it.

**Medications**

You will be required to list all your medications by writing down the name, the dose and the day each medication is taken. If this is too difficult for you, ask your regular doctor to make a list of your current medications for you.

It is important that you also bring all your medications to hospital with you.

Continue to take all your routine medications up to the time of admission to hospital EXCEPT blood thinning tablets like warfarin/coumadin. These medications must be stopped 5 days before surgery. You should discuss these medications with your surgeon.

Tablets like aspirin, astrix, plavix, iscover, cardiprin, and tablets for arthritis, rheumatism and gout, like brufen, Clinoril, feldene, indocid, orudis and voltaren must be stopped 10 days before surgery.

If you are not sure about your medications and the effect that they may have on your surgery please seek advice from your surgeon in advance of your surgery.

**Other medications**

Antibiotics and small doses of blood thinning agents may be prescribed prior to your surgery.

**Diabetes mellitus**

If you have diabetes you must tell your surgeon prior to your admission date.

You must also tell the staff at the time of your admission.

Special arrangement will be made for you as necessary. Your blood sugar levels will be monitored from the time you start fasting until normal eating resumes.

Do not take any diabetic tablets on the morning of your surgery.

**Skin preparation**

You may be required to shower at home with an anti-bacterial soap such as sapoderm or gamophen prior to your surgery. The same soap can be used after your surgery as well.

You may be required to have a shower in hospital with an antiseptic solution before your surgery.

**A responsible person**

A responsible person may be required to accompany you home after surgery. A responsible person is an adult who understands the postoperative instructions given to them and is physically and mentally able to make decisions for your welfare when appropriate.

**Travel**

You will need to arrange for a responsible adult to drive you after your surgery. A suitable vehicle is a car or similar. A taxi is only acceptable if someone OTHER than the taxi driver accompanies you.

Public transport such as a bus is NOT acceptable.

**General exercise**

It is important that you maintain your fitness and you should continue your normal activities prior to your surgery.

If time permits you may try to increase your fitness level gradually. Your fitness will be of benefit to your overall recovery after surgery. Walking is an excellent way of improving fitness and is recommended.
It is expected that you will have pain and discomfort after your surgery. The amount and severity of pain will vary from person to person.

Narcotics (morphine, pethidine, fentanyl) are used to relieve pain. Narcotics are not addictive in the amounts required to relieve pain.

It is important to limit the amount of discomfort that you have, so that you are able to do your breathing and general exercises as directed.

Any initial severe pain and discomfort will be managed with intravenous medication such as morphine, pethidine or fentanyl. Pain relieving tablets will be prescribed before discharge from hospital.

**Pain relief at home**

Pain, aches and discomfort may still be present when you leave hospital and may continue for several weeks. It is important when you are at home to maintain control over your pain, aches and discomforts.

Drugs for pain relief vary in strength and can "generally" be related to pain severity, BUT remember also that individuals have differing responses to pain and pain relieving medications.

As a guide and for your knowledge, the range of medication by drug strength from weakest to strongest is as follows:

Mild pain relief will be required for mild pain.

Such pain relieving medication includes paracetamol, panadeine, panadyne and panodeine.

Moderate pain relief may require medications such as digesic, panadeine forte, tramyl, endone or oxycodone.

You need to be aware that some pain relieving medications may contribute to persisting nausea and vomiting and will contribute to constipation in the post-operative period.

Anti-inflammatory drugs such as voltarol, celebrex, brufen, naprosyn and indocid will contribute to effective pain relief when taken with mild pain relieving tablets.

If you have persistent unrelieved pain you may need to be seen by a doctor to exclude another cause for the pain.

**Constipation**

If you normally take medication for bowel problems you will need to bring these medications to hospital with you. It is common to develop constipation after surgery that may require treatment.

Prevention of constipation begins on the day of surgery and continues until the bowel returns to "normal" function, which is usually once the need for pain medication ceases.

Medications for constipation such as coloxyl and senna or lactulose can be purchased from the local chemist without a prescription.

Eat fresh fruit and vegetables, take extra fibre and increase your exercise. Drink plenty of water, providing you are not on restricted fluids for any reason.

**Other**

It is important that you try to retain your identity as a normal person whilst you are in hospital. Make sure that you ask plenty of questions about what is happening to you.

Feel free to share your concerns with the nurses, doctors and other professionals that are involved in your care.

**After Your Operation**

**On waking**

Your head will propped up on several pillows. Your eyes may have cool packs over them. You may have blurry vision from the ointment put into your eyes during surgery to keep them moist.

**Discomfort**

You can expect to have some discomfort when you wake up after blepharoplasty. Some stinging of the eyes will be present.

You will need to remember to move your legs to keep the circulation flowing and to take deep breaths to expand the lungs.

Care should be taken when moving around in bed.

Coughing, straining and vomiting will place stress on your suture lines and will increase swelling and bruising.

**Pain relief**

You will need to take painkillers as provided.

It is recommended that you avoid aspirin or aspirin based products for pain relief, as they will promote bruising and bleeding.

The usual medications given in the postoperative period consist of panadol, panadeine, panadeine forte, panamax, digesic, and endone. These medications may be combined with anti-inflammatory medications such as voltarol, celebrex, or brufen.

Make sure that you have a postoperative pain regime at the time of discharge and that you understand the medications that you are taking and what they are designed to do for you.
It is illegal to drive while under the influence of a drug (even a prescribed one) and you could be charged.

The effects of an anaesthetic may still be present 24 hours after your procedure, even if you do not feel them. Your reflexes will be slower and you are at risk of injury. It is illegal to drive while under the influence of a drug (even a prescribed one) and you could be charged.

Other medications

Your surgeon may prescribe a course of prophylactic (preventative) antibiotics.

Nausea and vomiting

Nausea and vomiting may be due to the anaesthetic or post-operative medication (like pain killers or antibiotics).

Apart from being unpleasant, vomiting will cause an increase in swelling and greater bruising around the eyes.

Medication to prevent nausea and vomiting may be required.

If prolonged, nausea and vomiting may be related to a complication like infection and may cause dehydration. You need to inform your surgeon of prolonged nausea and vomiting.

Bruising

Bruising of the eyes after blepharoplasty is usually maximal at approximately 48 hours after surgery. Most bruises will resolve by 2 weeks. Gentle massage with a moisturising lotion (Sorbolene), twice daily may help to dissipate bruising.

Bleeding or ooze

There may be ooze of blood from any of the suture lines. Any ooze should resolve within 24 to 48 hours. Persistent or offensive ooze should be reported to your surgeon.

Swelling

Swelling can occur for 4 to 6 weeks after blepharoplasty and sometimes, intermittent swelling may take up to 6 months to settle. Please ask your surgeon how long swelling should take to resolve. Swelling lasting longer than this time may be due to a complication, and should be reported to your surgeon.

Ice packs

At home a mouldable cold pack or a small bag of frozen peas wrapped in a tea towel may help to reduce swelling, bruising, and pain. Cold packs can be applied to the eyes (for 20 minutes every 1 to 2 hours) in the first 48 hours after surgery to help minimise swelling and bruising. The cold packs should not hurt.

If cold packs are uncomfortable, don’t use them as often. After a few days gentle daily massage with a bland moisturising cream after your shower will help to resolve bruising and any lumpiness.

Dressings

Any dressings following blepharoplasty are removed at 24 hours after your surgery. Please ask your surgeon how long the dressings need to stay on. Steri-strips or tapes may be present below the suture line to tape sutures down to the skin so they do not flick into the eye.

Check with your surgeon if you are able to shower.

Sutures

Some surgeons prefer to use sutures beneath the skin. These sutures will absorb with time.

Occasionally the body will want to extrude these sutures. A sore or a pimple on the suture line may indicate an underlying suture trying to break through the skin. This suture can easily be removed. Antibiotic ointment or betadeine may be required until the area heals.

Other surgeons prefer sutures in the skin. These sutures will require removal at 3 to 5 days after your surgery. Suture removal is usually arranged with the surgeon.

Cleaning

Having a shower and getting your sutures wet may be permitted by your surgeon after the dressings have been removed. An antibacterial soap (Sapoderm, Gamophen) may be recommended.

You will need to pay attention to washing and carefully drying the suture line with a clean cotton bud. Antibiotic ointment (chloromycetin ointment) or soft white paraffin (vaseline) may be applied along the suture lines to moisten any crusts and to allow removal of the crusts.

Please ensure that you follow your surgeon’s instructions about wound care.

Travel

Blepharoplasty is commonly performed under general anaesthesia and as day surgery. If you are going home after day surgery a family member or friend must drive you because you have had an anaesthetic and someone should stay overnight with you for the same reason. You may need help from a relative or friend at home during the first few days after your blepharoplasty.

If you have any questions about these matters, please speak to your surgeon.

Anaesthetic effects

The effects of an anaesthetic may still be present 24 hours after your procedure, even if you do not feel them. Your reflexes will be slower and you are at risk of injury. It is illegal to drive while under the influence of a drug (even a prescribed one) and you could be charged.
It is not uncommon to experience a brief period of "let-down" or depression after any surgery. You may subconsciously have this experience, are designed to give you the best additional pain relief or for treatment of unexpected complications of surgery such as bleeding, wound problems or infection.

### Readmission to hospital

Rarely may you need to be re-admitted unexpectedly to hospital. The most common cause is persistent nausea and vomiting, anxiety, the need for unexpected additional pain relief or for treatment of unexpected complications of surgery such as bleeding, wound problems or infection.

### Activity

Too much activity too soon will risk delays in healing or increase the risk of complications. Try to walk upright and avoid bending. Sleeping head up and with 2 or 3 pillows behind your head will help to reduce pain, swelling and bruising. Try to avoid any straining or rushing around. You may go to the bathroom, walk around the house sit and watch TV, etc., but no matter how good you feel do not clean the house, engage in heavy manual work, go to the gym etc. for 4 weeks following your surgery. This also applies to sexual activity.

### Sport

Slow walking on the flat for exercise is often therapeutic in the early post-operative period. More strenuous exercise like fast walking, running, swimming or tennis may commence after 2 weeks.

Outdoor sports may cause irritation, redness or watering of the eyes for up to 6 weeks after surgery. Dark sunglasses may prove useful when outdoors during this time. Please ask your surgeon when you can start exercising.

### Diet

Your post-operative diet should consist of fluids initially then soft food that is easy to prepare. If you have any postoperative nausea, carbonated sodas and dry crackers may settle the stomach.

### Vitamins

Although not proven, there is some suggestion that multivitamins prior to and after surgery may aid in wound healing. Avoid mega dosing on vitamins prior to surgery.

### Smoking

Smoking reduces capillary blood flow to the skin and may result in delays to wound healing or complications of your blepharoplasty. Smoking not only affects wound healing; it also increases the risk of bleeding, wound infections, post-operative chest infections. Any coughing may cause bleeding. Smoking also increases the risk of developing a blood clot in the legs that can travel to the lungs. It is recommended that you cease smoking at least 4 weeks prior to your surgery and for 4 weeks after.

### Alcohol

Medications and alcohol may interact with the residual anaesthetic. Discuss your normal medications with the anaesthetist.

### Recovery time

You must allow yourself adequate recovery time. You will have bruising and puffiness of the eyes for up to 2 weeks after surgery. Too much activity too soon will increase the risk of complications such as bleeding and delayed healing.

It would be wise to ensure you have adequate time off work to allow sufficient time for your body to recover from the effects of surgery.

Discuss the expected time for recovery with your surgeon prior to your surgery and allow plenty of time for adequate recovery.

### Healing

Everyone heals at a different rate. The ability to heal is variable and depends upon a number of factors such as your genetic background, your weight, your overall state of health and lifestyle (exercise, diet, smoking, drinking, etc.). Your attention to preparing yourself for surgery will be manifest in your post-operative recovery. Many people believe the surgeon "heals" the patient. Not one person can make another heal. Your cooperation and close attention to pre and post-operative instructions is extremely important and is in your best interest.

### Following instructions

A major factor in the course of healing is whether you follow the instructions given by your surgeon and the nurses in the surgery. Such guidelines are designed to promote the healing process and to prevent the occurrence of anything that may interfere with your recovery. It is imperative that you recognise that you are a partner in this process and have a responsibility to follow instructions carefully. The instructions, based on broad experience, are designed to give you the best opportunity for healing without delay or surprise.

### Depression

Depression is a normal reaction to surgery. The third day following your surgery may be the worst. You may be teary.

It is not uncommon to experience a brief period of "let-down" or depression after any surgery. You may subconsciously have
Day 3 post surgery may be the worst.

As healing occurs, these thoughts usually disappear quickly.

If you feel depressed, understanding that this is a "natural" phase of the healing process may help you to cope with this emotional state.

Support from family and friends

Support from family and friends can be very helpful, but because they may not understand what constitutes a normal postoperative course, their comments may unintentionally create emotional turmoil for you.

The staff at the surgery and your surgeon will tell you honestly how you are doing and what to expect.

Please trust in your surgeon's knowledge and experience when your progress is discussed with you.

Complications

Complications are infrequent. When complications occur, it is seldom a consequence of poor surgery or poor postoperative care. Complications are more likely to be a result of the variable healing capacity or a failure to follow post-operative instructions. You will be assisted in every way possible if a complication occurs.

Should the unexpected occur, please understand that it is important to follow the advice of your surgeon and nursing staff in order to treat it as effectively as possible. Your surgeon and the nursing staff will ensure that you have support and assistance during this difficult time.

Appointments

It is very important that you follow the schedule of appointments established for you after surgery. Appointments to see the nurse or the surgeon should be made before or immediately after discharge from hospital. The review appointment may be the next day or up to one week following surgery.

If no appointment has been made, you must ensure that you contact your surgeon and make a follow up appointment. If you have any concerns don’t feel that you are bothering the surgeon or the staff.

If need be, you can be seen prior to any arranged review appointment to sort out any concerns.

Revisional Surgery

Occasionally the result of your surgery may not be totally perfect. If you feel that you can focus on the overall degree of improvement instead of any small lack of perfection, then you will reap the benefits of the results of your operation. If small imperfections will prevent you focusing on the degree of improvement after your surgery you probably should not have had an operation.

Your surgeon will use their expertise and experience in their surgical techniques to achieve the best results and ensure their patients receive the most advanced surgical techniques available. They keep updated by attending, national and international aesthetic conferences and seminars regularly.

The surgery performed may not necessarily relate to the methods that are sometimes promoted, or advertised in popular magazines, newspaper articles or on television.

The rate of revisional surgery, even in the most skilled surgical hands, can never be zero because patient and surgeon can control only some aspects of the outcome.

Minor adjustments or additional revisions following cosmetic surgery may be necessary in up to 5% of patients.

Revisional surgery is performed after the first postoperative year (12 months after surgery) because resolution of swelling and stabilization of the final appearance takes at least that long.

During the first year after surgery irregularities, asymmetries or poor contours may sufficiently improve without surgery, so very small imperfections following surgery should not be revised.

Revisional procedures are less predictable and involve more risks. You must consider any revisional surgery carefully after discussion with your surgeon.

If revisional surgery is required you may incur further surgical, anaesthetic, pathology and hospital fees. These fees may be covered if you have private health insurance, depending on your level of cover. These fees will be your responsibility and you will need careful financial planning you before you embark on any form of cosmetic surgery. Private Health Insurance is strongly advised for any cosmetic surgery.