Eyelid and Tear Duct Disorders

Cutting Edge Health Treatment

AUGENKLINIK SULZBACH

www.augenklinik-sulzbach.de

Welcome to the plastic reconstructive eyelid surgery department

The central face area around the eyes fulfils many important functions, both for good eyesight as well as for an attractive appearance. The health and condition of the eyelids are hence of particular importance.

There are many lid disorders, all of which are, as a rule, well treatable. However, an operation in the eye area is a matter of trust. Experience is key in both aesthetic and plastic reconstructive lid surgery. Make sure that your practitioner:

- has extensive experience
- is specialised in lid surgery
- offers innovative treatments for the whole spectrum
- applies state-of-the-art quality standards
- offers the security of a renowned clinic

Specialised Lid Surgery Team

In the plastic reconstructive lid surgery department, the clinic offers a specialised team of surgeons with many years of experience in the field. Annually, we carry out more than 1,000 operations on lids, eye cavities and tear ducts.

Our patients trust in the largest special outpatient clinic for lid and periocular surgery in Saarland. We cover the entire spectrum of lid, eye socket and tear duct surgery and offer innovative treatments.

We wish you all the best for your treatment and speedy recovery.

Your specialised surgical team for plastic reconstructive lid surgery

AP Priv.-Doz. Dr. Gesine Szurman

Dr. Núria Perez Guerra, FEBO

AP Dr. Natalia Opitz, FEBO

AP Dr. Arno Haus, FEBO

***Priv.-Doz. M.D. Gesine Szurman** has been certified since 2013 for aesthetic oculoplastic surgery and is Training Manager (German Ophthalmological Surgeons' Association /BDOC). She also is certified for special plastic reconstructive and aesthetic ophthalmological surgery (German Ophthalmological Society/DOG and German Ophthalmologists' Association/BVA).*

A good cosmetic result is important for me, especially in an eyelid operation

State-of-the-art Treatment

Welcome to the largest eye clinic in Saarland with the richest tradition. With heart, mind and technical innovation, we have been committed to the best possible vision for our patients for almost 100 years.
The Sulzbach Eye Clinic has developed into one of the largest eye clinics in Germany with 20,000 operations per year in seven new, state-of-the-art operating theatres. It is renowned far beyond national borders. Each year, 31 specialised practitioners and a dedicated team of nursing staff treat 40,000 outpatient and 5,000 stationary patients. Among the medical staff there are numerous renowned experts, operating in 16 outpatient clinics and special consultations.

Special Outpatient Clinic for Aesthetic and Therapeutic Lid Surgery
In the plastic reconstructive lid surgery department, we cover the whole spectrum of treatments for the periocular face area: From aesthetic lid surgery to plastic reconstruction after an extensive tumour surgery. We don't just do functional surgery but want to make sure you are happy with the cosmetic result.

We only use the most state-of-the-art instruments and treat with innovative techniques, gently and minimally invasive. The many years of experience gained by our surgeons is your guarantee for cosmetically and functionally excellent results. Priv.-Doz. Dr. Gesine Szurman is certified by the most prominent plastic reconstructive and aesthetic ophthalmological surgery expert associations. She is also certified for aesthetic oculoplastic surgery.

An overview of our main services:
- Tumour Removal
- Plastic Reconstructive Surgery
- Platinum Implants for Facial Nerve Palsy
- Orbit Surgery (Eye Socket)
- Eye Lid Deformity Correction
- Scar Treatment
- Neurotoxin Treatment
- Aesthetic Lid Surgery (Drooping Eyelids)
- Endoscopic Tear Duct Surgery
- Tear Duct Splinting
- Toti Operation

Did you know?
We blink 10 to 12 times per minute, distributing our tear or lacrimal fluid across the surface of the eye. Women, incidentally, blink slightly more often than men.

I trust in the many years of experience of my attending physicians

Eyelids and Tear Ducts – Small Organs, Huge Impact

Eyelids play an important part in facial expression. They contribute to the overall impression of the face. The lids also protect our eyes and, with every blink, keep the surface of our eyes moist. The lacrimal fluid plays an important role in the health of our eyes. It is produced in the lacrimal gland and moistens the eye. The tear film protects the surface from harmful particles and from drying out. The lacrimal fluid is replenished every time you blink. It drains out through the tear dots and into the nose through the lacrimal sac. Good interaction between eye lids and tear duct is essential for healthy and bright eyes.

Eyelid Disorders

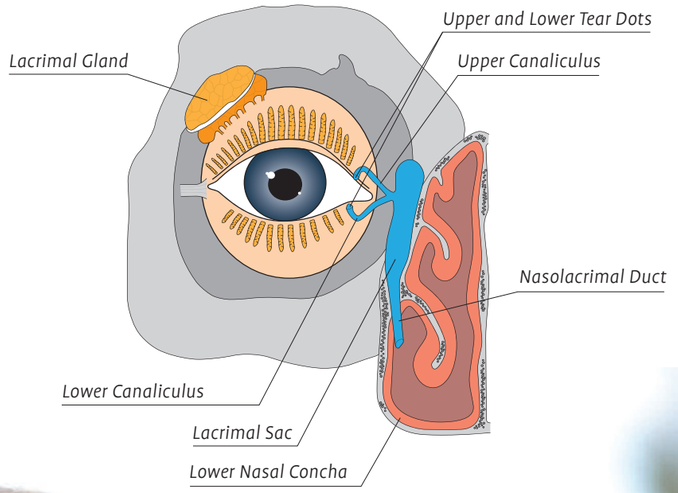
Disorders are common but are easily treatable in most cases. We distinguish between cosmetic and therapeutic procedures. Lifting of the eyelids (drooping eyelid) and Neurotoxin treatment are some of the most common aesthetic procedures and deliver fantastic results.

Medical reasons for a lid correction exist because of malposition of the lids due to age, scars or infection. We can often treat a ptosis (drooping upper eyelid) with a lifting of the levator muscle quite well. A main focus for the plastic reconstructive eyelid surgery department is tumour surgery. Here, the growth is removed and the lid is subsequently reconstructed so that a good result is achieved, functionally as well as cosmetically.

Tear Duct Disorders

A lacrimal drainage disorder is a nuisance. The patients often notice frequent tearing whereby the tears run down the cheek as if they were crying. This is accompanied by frequent reddening and infection of the eyes. An expansion of the tear ducts can heal the disorder but is often complicated. For the first time in Saarland, we were able to gently treat tear duct disorders endoscopically. This minimally invasive approach is significantly more comfortable than conventional treatment procedures.

Upper and lower lids consist of muscles, glands, connective tissue and skin. They form the front limit of the eye socket and protect and moisten the eye surface. The lacrimal fluid is produced in the lacrimal gland. It drains through the canaliculi in the inner lid corner into the lacrimal sac and from there through the nasolacrimal duct into the nose.



Aesthetic Lid Surgery (Drooping Eyelids)

Bright eyes, a relaxed, rested and youthful look – who doesn't want that? Drooping eyelids often disrupt the fresh impression we want to make on others. Unfortunately the signs of time begin to show early on the fine skin of the lids: The lid skin and the tissue underneath slacken increasingly and lead to an excess of skin. Additionally, the septum (separating layer of the eye socket) sags, often causing fatty tissue to protrude from the eye socket, leading to small fat pads, visible under the eyes.

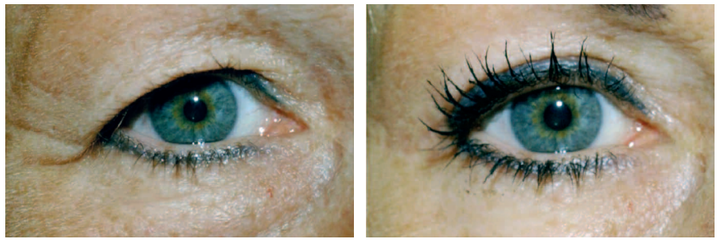
Drooping Eyelid Treatment (Blepharoplasty)

With age, the tension of the skin and the connecting tissue underneath it loosens. Wrinkles emerge, the lid skin slackens and sags. We surgically remove excess skin and then gently tighten the skin. The operation requires precise knowledge of anatomy. It is not enough to simply remove excess skin. The subcutaneous tissue must also be treated appropriately. The exact positioning of the eyelid crease is even more important. For a lid crease which is positioned too high or too low looks artificial and hinders an optimal cosmetic result. Too much skin may also not be removed, hindering the eye from closing. Our seasoned surgeons lead the operation with great routine and pay attention to these important details.

Drooping eyelid treatment (Blepharoplasty) is considered primarily an aesthetic procedure. Drooping eyelids are seldom so large that they restrict the central field of view. Only then is it considered a medical reason for an operation. This diagnosis is important for you because the health insurance will cover such procedures.

Brow Lift

When planning a blepharoplasty, it is important to remember that, besides lid slacking, a further cause may be a sinking eyebrow (eyebrow ptosis). In this case, tightening the skin is not enough, as functional and cosmetic problems could arise. The eyebrow would be pulled further down and the overall visible impression of the face would be worsened. In these cases, we additionally conduct a lifting of the eyebrow (direct eyebrow lift). An overlooked eyebrow ptosis is the number one reason for dissatisfaction with the result of a blepharoplasty.



The field of view is opened by the removal of slacking skin on the upper lid. It looks fresher. The cut runs inconspicuously. in the natural lid crease.

A cosmetic operation is especially a matter of trust

Cosmetic Treatment with Neurotoxin

Neurotoxin has been used since the 1990s to successfully treat wrinkles. A fresh, relaxed facial expression is achieved. The cosmetic application of the active ingredient must be carefully planned and properly dosed, in order to prevent unwanted effects such as a paralysed, masklike facial expression. If you are considering a cosmetic neurotoxin treatment, we will gladly provide you with a comprehensive neurotoxin consultation. We will cover the advantages and disadvantages of the therapy and possible alternatives.

What is a neurotoxin?
Since the 1990s, the active ingredient has gained considerable attention, especially in the treatment of facial wrinkles. The toxin we use is a poisonous and therapeutic substance alike, which is produced by bacteria in an anaerobic environment. It is used in fine doses to treat disorders in which muscles contract uncontrollably such as dystonic movement disorders (disorders of the normal state of tension of the muscles) or severe spasticity. Our patients have appreciated this gentle therapy from the hands of our experienced surgeons for years.

Did you know?
Ophthalmologists were the first medical practitioners who recognised the therapeutic value of neurotoxin. In the 1970s they treated squinting and nystagmus (eye trembling) with it and since the 1980s mostly eyelid twitch (Blepharospasm).

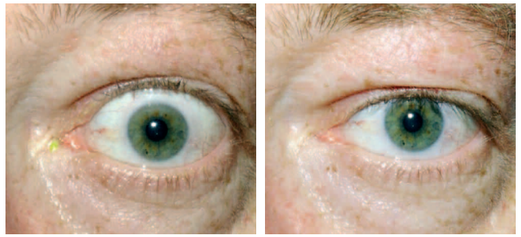
How does the neurotoxin work?
It blocks the transmission of the signals from nerve to muscle, so that the muscle slackens for a certain time, although the nerve continues to send signals. For this, the toxin is injected into or next to the muscle. At the nerve ending, it restricts the release of the transmission substance necessary for all movement (acetylcholine). The individual onset of the effect takes around one to two weeks and lasts for three to four months. Over time, the body uses certain mechanisms to eventually restore the original condition of the nerve endings. The nerve ending regenerates and once again allows for the release of acetylcholine.

Medical Treatment with Neurotoxin

Alongside cosmetic treatment, neurotoxin is also applicable in various eye disorders. The most common medical reason for the application of neurotoxin here is eyelid twitching (blepharospasm) and other dystonias (spastic muscle twitching) and endocrine orbitopathy.

Blepharospasm (Eyelid twitching) Treatment
Blepharospasm occurs when a contraction of the sphincter muscle at the eyelids causes uncontrollable winking. At the onset, this winking is hardly distinguishable from normal blinking. As the disorder progresses, it can lead to a chronic cramping of the lid, accompanied by visual impairment and facial distortion.
Middle aged women are especially at risk for this disorder.
It often begins on one side with excessive blinking and the feeling of a foreign body in the eye. Emotional distress, bright light and stress can compound the symptoms.
Blepharospasm has successfully been treated with neurotoxins since the 1980s. After the injection the active ingredient paralyses the affected muscle so that the eye twitching decreases. More than 90% of patients profit from this therapy and it is seen as the number one choice. Our experience of almost 30 years has shown that even a repeated injection of relatively high doses has no long term side effects.

Endocrine Orbitopathy (Graves' Disease) Treatment
A typical sign of Graves' orbitopathy is the lid retraction (significantly withdrawn upper lid, photograph left). The increased surface of the eye commonly leads to dry eyes. It also looks unnatural. A minimally invasive injection of neurotoxin can improve the position of the upper lid. (Picture right)



Wrinkle Treatment (crow's feet) with neurotoxin.
Image right: One week after the procedure with considerably smoother skin.

Procedure for Eyelid Tumours

Lid tumours are growths of the skin in the eyelid area and can occur on either the upper or lower lid. These could be benign skin tumours such as warts (papilloma) or fatty deposits. On the other hand, there are also malignant lid tumours. The most common malignant lid tumour by far is basal cell carcinoma (basalioma).

Benign Lid Tumours

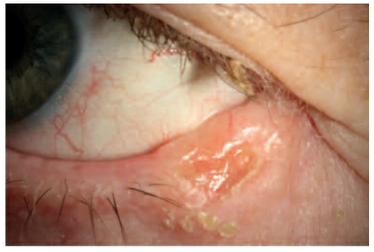
These include warts (papilloma) or fatty deposits (xanthelasma), but also strawberry marks (haemangioma) and extreme cornification (hyperkeratosis). Discolourations of the lid must be examined immediately when they grow. For moles (nevi) often grow on the eyelids. These could possibly degenerate and develop into malignant lid tumours. Keratoacanthoma (nodular skin growths) should be removed as they may develop into malignant lid tumours.

Basalioma

Basalioma (basal cell carcinoma) can occur in all areas of the face. It often affects the eyelid area, especially the edge of the eyelid. It is the most common of all malignant lid tumours. The average age of onset for basalioma is 70 years but significantly younger people may also be affected, especially persons with a fair complexion. The good news: It does not spread but it can grow quickly. This is why an early diagnosis is very important. It can then be removed without too much tissue loss. Important: The tumour is usually bigger than it looks because it also grows under the skin.

Rare Malignant Lid Tumours

Other malignant lid tumours which may also metastasise are fortunately rare. These include squamous cell, sebaceous and Merkel cell carcinoma as well as malignant melanoma. They often resemble a harmless infection or sty so that an experienced opinion is important not to lose any time. An excision (removal through cutting) with enough safety distance and internal co-supervision is very important.



The beadlike swelling on the edge of a tumour with crater-like centre is typical for basal cell carcinoma. Often very fine, newly formed blood vessels can be seen shimmering through the skin of the wall (teleangiectasia). If the basalioma is on the edge of the lid, eyelash loss is common.

Did you know?
90% of all malignant lid tumours are basaliomas, most of which can be easily removed.

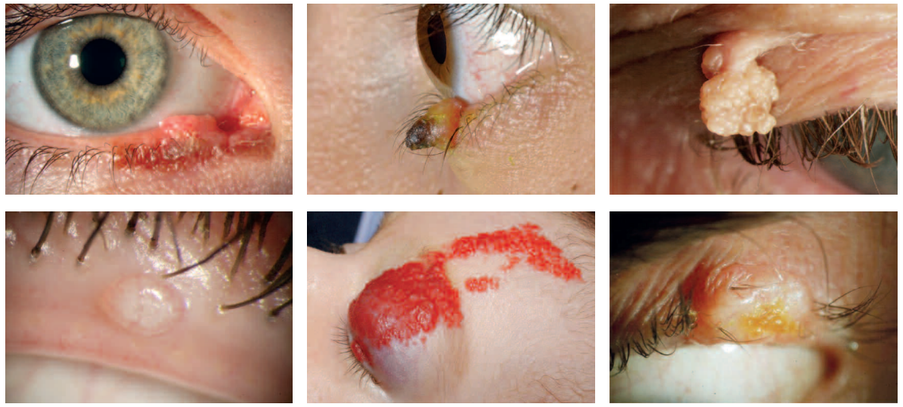
What do I notice?

Each bump, colouration or infection must be checked. Signs for malignancy can include growth, chronic infection, bleeding or eyelash loss. The type of lid tumour determines which treatment is right for you. Some benign tumours require no therapy while others must be checked with a biopsy.

The Right Diagnosis and Treatment

When in doubt, your ophthalmologist will consult you in our special consultation for eyelid disorders. Here we check the condition of the lid and provide comprehensive and in-depth advice. In many cases, a small sample can be taken and histological examinations can be done. This way we can deliver a confident diagnosis.

The tumour can often be completely removed, should a malignancy be confirmed. A so-called 24-hour histology is important. This allows us to only remove as much as we need. Only one day later we can tell if everything has been removed from the healthy area. After that we can proceed with plastic reconstructive wound closure, in order to achieve a functionally and cosmetically good result. A local cryotherapy or chemotherapy (Mitomycin C) can help to treat extensive lid tumours.



No other part of the body produces so many and so many different kinds of tumours as the eyelid area.
The distinction between benign and malignant requires specialised practitioners with many years of experience.

Plastic Lid Reconstruction after Tumour Surgery

The art lies not in the removal of the tumour but in a cosmetically good lid reconstruction. Every tumour removal creates a defect which must be covered precisely. This is the challenge: For not only must the function of the lids be preserved, but the cosmetic rehabilitation is very important in this sensitive area. Our team of practitioners in the plastic reconstructive eyelid surgery department is specialised in this treatment. Even large tumour defects can be very well treated. We apply special techniques such as rotation flap, free grafting or tissue from the upper lid (Hughes flap).

An Overview of our Treatments

Rotation Flap Surgery: Here, the skin defect is replaced by rotating healthy skin from a nearby area into the defect. We usually get the best cosmetic results with this, as the fine scars hardly show.

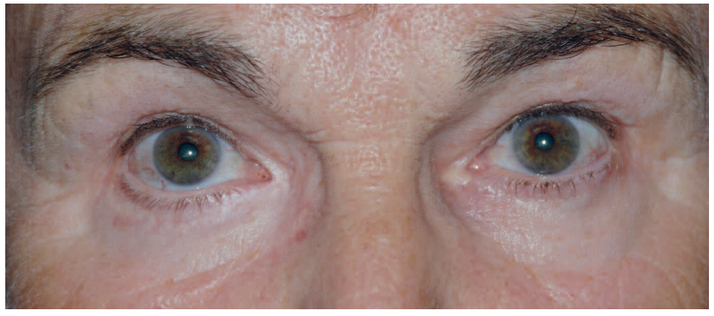
Free Graft Surgery: For large defects, it is sometimes necessary to apply a free graft. We typically use skin from the upper lid, as this is closest to the lid skin. We use skin from behind the ear or the inner side of the overarm for very large defects.

Eyelid Edge Reconstruction: The lids are not only made of lid skin but also contain cartilage, the so-called tarsus. This gives the lid a firm structure and keeps it stable. The tarsus must also be replaced in cases of lid edge loss. We transplant a part of the tarsus either from the upper lid or from the other eye. In rare cases, ear cartilage or a synthetic material may be used.

Huges Flap Reconstruction: For this special form of lid edge reconstruction, the cartilage part of the upper lid is removed along with its blood supply and is sewn into the defect on the lower lid. The missing skin is taken as a free graft from the upper lid. The eye must remain sewn shut for ca. 6 weeks until enough new blood vessels have formed. Rotation flap surgery may be used to replace the skin. In this case, the period in which the eye must remain sewn shut may be shortened or completely foregone. This treatment is only offered in a few clinics.

Strawberry Mark (Haemangioma) Treatment

Strawberry marks are benign tumours occurring mostly in children. At birth, the haemangioma is usually still small and grows within the first year of life. The tumour commonly recedes later on by itself. When such a strawberry mark forms in the eye area, it must be made sure that it does not block the view or cause a corneal curvature (astigmatism). This could impair sight development. Haemangioma is successfully treated with laser or cryotherapy. In some cases, a medicinal therapy can help (propranolol).



A large defect in the lower lid and cheek caused by the removal of a basal cell carcinoma is covered by rotation flap surgery. Very good cosmetic condition after one year.

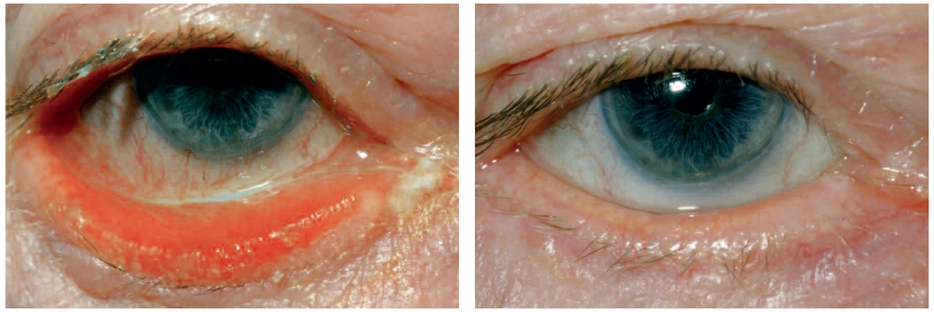
Haemangioma on the upper lid of a child.

Eyelid Misalignment (Ectropion and Entropion)

Most lower eyelids tend to twist inwardly with age (entropion) or outwardly (ectropion). Other causes are injuries, scars or infections. Our team of practitioners has comprehensive surgical experience in the treatment of eyelid misalignments. We are specialised in minimally invasive treatments, which employ only very small skin cuts. These are cosmetically invisible after healing.
Another advantage: The operations are almost always combined with a lifting, so that the cosmetic result is usually exceptional.

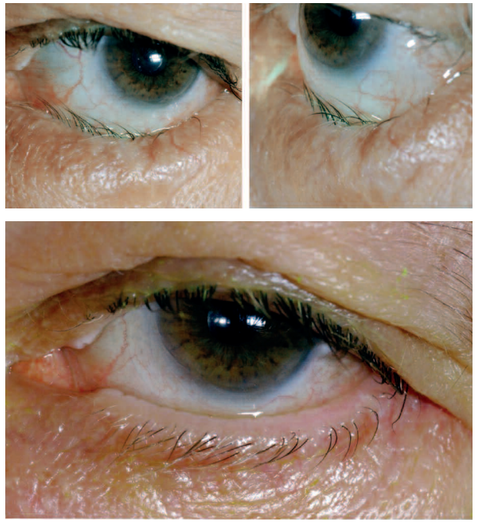
Ectropion
An ectropion is a misalignment of the eyelid in which it is turned outwardly. It normally occurs in the lower lid. The most common cause is reduced lid tension, occurring usually in the elderly. But facial nerve palsy is also usually accompanied by slacking of the lower lid. Rare causes of ectropion are shrinking of the skin, scars or tumours. When the lid edge loses its point of contact with the surface of the eye, the eyes can begin to tear, irritatingly. Ectropion is also often accompanied by an infection and a considerably red eye. Many patients report a burning sensation.

Entropion
An entropion is a misalignment of the eyelid in which it is turned inwardly. This occurs most commonly in the lower eyelid. An inward twist is dangerous because the lashes come in contact with the eye and chafe the cornea. This can lead to serious and long-term damage to the eye, mostly in the form of corneal ulcers.



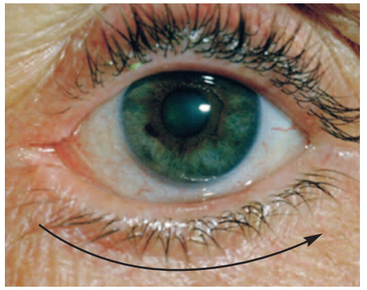
Ectropion: The lower lid turns outwardly through a loss of lid tension and sags. The sensitive mucous membrane on the inside of the eyelid is no longer sufficiently moistened and becomes infected (Picture left). The lower lid is returned to a normal position through surgical lid tightening (lateral tarsal strip) (Picture right).

The most common cause is reduced lid tension, occurring mostly in the elderly. But also infectious eye disorders can lead to an entropion through shrinking of the connecting tissue. Typical signs are burning of the eyes and infections, but also worsening of sight.



Entropion: The lower lid turns inward through a loss of lid tension and the eyelashes chafe the surface of the eye (Picture top). The lower lid is returned to a normal position through surgical lid tightening (lateral tarsal strip) (Picture bottom).

Simple Treatment with Lateral Tarsal Strip
Both disorders are surgically treated. In both cases, the cause is usually a slacking of the lower lid, which is why the treatment is similar. The lid edge is tightened with a lateral tarsal strip. In this operation, we prepare the side edge of the lid cartilage (tarsus) and fix it to the periosteum of the side of the eye socket. For a good result, the position of the tear dots must sometimes be corrected. In rare cases, a free graft from the upper lid or flap reconstruction with the periosteum is necessary.
If the disorder is diagnosed in time, the prognosis for the operation is very good. The advantage is that we do not only reconstruct the function. Through combined skin lifting, the result often looks cosmetically better than before. A timely operation is, however, crucial. For if left untreated, it could lead to a long-term malposition of the eyelashes in which they grow inwardly. This can lead to chafing and ultimately to corneal disorders.



The lid edge is tightened toward the outer eye corner and laterally fixed in the lid angle.

Hanging Upper Lid (Ptosis) Treatment

Ptosis is when the one or both of the upper lids sag partially or fully (blepharoptosis). Various things can cause the entire upper lid to hang, narrowing the lid fissure. The severity of the disorder can range from a light asymmetry to a serious sight impairment. The axis of sight (centre of the pupil) is sometimes covered or the upper eyelid even hangs completely down. The most common causes are age related changes with overextension and slacking of the deep lid tissue (so-called levator aponeurosis). Wearing contact lenses for many years can also be a cause.

Congenital forms (congenital ptosis), however, demonstrate a weakness of the lid muscle (levator). A nerve palsy after a stroke or as a result of a neurological disorder for example can lead to a hanging upper lid.

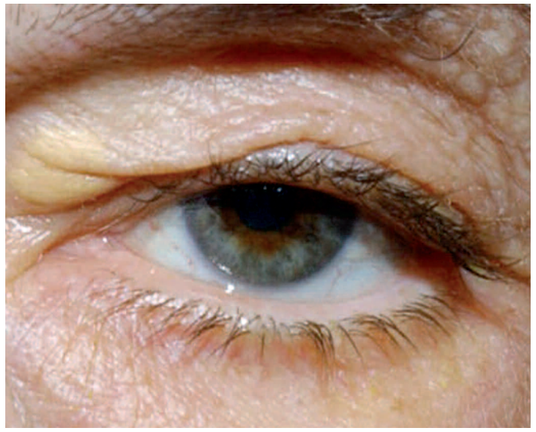
Ptosis Treatment

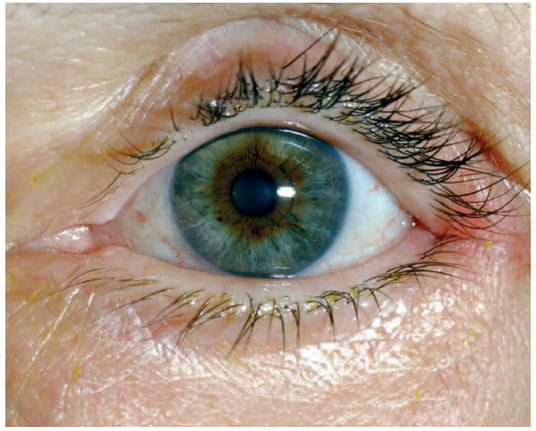
The choice of surgical technique is strongly dependent on the cause of the disorder and the function of the levator. In most cases, the cause is an age related slacking of the tendon of the levator muscle. The treatment is carried out through a shortening of the levator (levator resection or folding). The skin scar is inconspicuously within the eyelid crease. If there is an excess of skin on the upper lid, this is also removed, leading to a functionally and cosmetically better result.

Individual Strategy

Ptosis has many different causes, which must be treated differently. This is why we painstakingly examine your eye in a special procedure in order to be absolutely certain to find the cause. There are other forms, which must be treated differently from the classical causes (slacking of the lid tendon).

In congenital forms, the tendon is usually not the cause. Indeed the function of the lid muscle is impaired. In extremely reduced levator function, fixing it to the forehead muscle (musculus frontalis) can improve lid movement indirectly (frontalis suspension). In rare cases, especially in muscular ptosis, a maximally possible removal of the upper lid skin (blepharoplasty) can suffice to clear up the field of view. Sometimes a medicinal treatment is enough. In neurogenic ptosis, an MRI of the skull may be necessary.





The hanging upper lid leads to an extreme visual impairment. After the lifting of the upper lid (levator resection) and removal of the excess skin (blepharoplasty), the field of view is free. The face looks less tired.

Did you know?

In paediatric ptosis, the development of reduced vision (amblyopia) can also be caused by a cornea curvature. Early eye check-ups are vital.

Facial Nerve Palsy Treatment

Facial Nerve Paresis

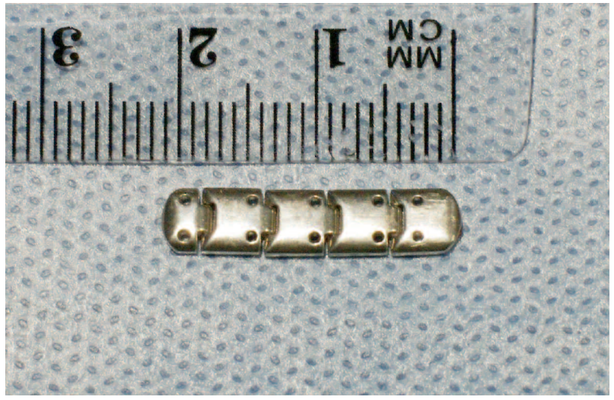
The facial nerve stimulates the mimic musculature and the lacrimal gland. A facial nerve palsy leads to a slacking paralysis of the musculature of one side of the face. The corner of the mouth hangs and is often accompanied by an outward turning of the lower lid (ectropion). Also, hanging of the eyebrow (eyebrow ptosis) often develops. More importantly, the palsy often hinders the eye from closing. Blinking is no longer possible. This leads to the danger of the development of a corneal ulcer (eyelid closure deficit & a lack of blinking sometimes with reduced tear production) possibly with long-term, severe visual impairment due to corneal scarring.

There are many causes for facial palsy. The most common cause is stroke. Further causes include infections, tumours and injuries. In rare cases, no cause can be found, the paresis occurs spontaneously without discernible cause (idiopathic facial paralysis).

New: Platinum Implants Restore Eyelid Closure

The implantation of an eyelid weight into the upper lid is an effective opportunity to ensure an intact lid closure and natural blinking. These innovative treatments are only available in a few clinics in Germany. Our practitioner team is specialised in this procedure with many years of experience in eyelid implants.

A thin platinum implant is placed under the skin of the upper eyelid. This delivers excellent functional and cosmetic results. The relatively high weight of platinum, as compared to other materials, allows for only minimal contouring of the upper lid with an optimal result. Another advantage of platinum implants: They consist of several individual elements and thereby adapt perfectly to the curvature of the eyelid cartilage (tarsus). This makes them more tolerable as compared with rigid gold implants (less corneal warping).



Platinum Upper Lid Implant. The shape is flexible. The chain adapts perfectly to the curvature of the upper lid.

Lower Eyelid Lifting Treatment

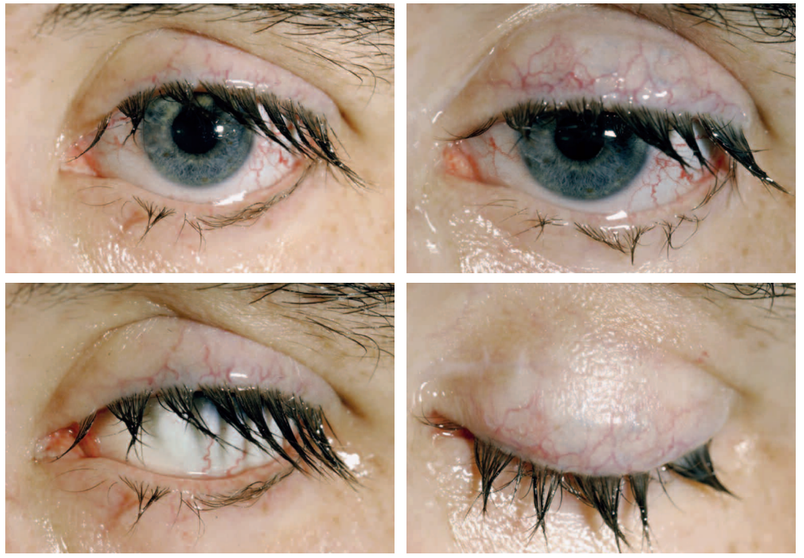
We often have to carry out a tarsal strip surgery on the lower lid to treat an ectropion caused by muscle paresis.

→ *See p. 17 (Lateral Tarsal Strip)*

Eyebrow Ptosis Treatment

The paresis often leads to an eyebrow ptosis with a restriction of the visual field which is also cosmetically noticeable. This is corrected with an eyebrow lift (direct eyebrow lift).

→ *See p. 8 (Brow Lift)*



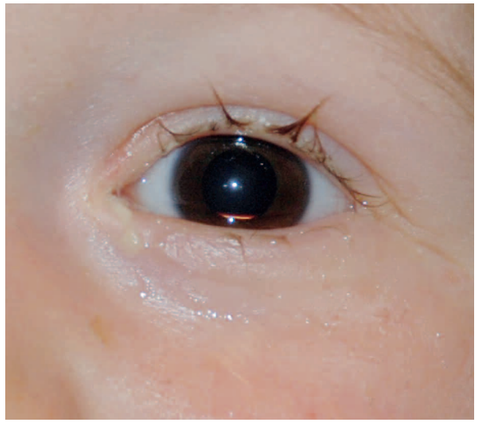
Facial nerve palsy with incomplete lid closure (left side). After the platinum implant is applied, the lid closure is once again complete (right side). Important: The blink reflex, extremely important for the moistening of the eye, works again.

Tear Duct Treatment

The tears which moisten the surface of our eyes and contribute to their nutrition and protection are produced in the lacrimal gland. It is located laterally under the outer upper lid. With every blink, the lacrimal fluid is pumped from the lacrimal lake through the two tear dots on the inner upper and lower lid edge and into the canaliculi. From there it flows into the lacrimal sac and finally through the nasolacrimal duct into the nose. If these drainage ducts are congested or constricted, tears flow constantly over the cheek (tearing). If a medicinal remedy is not effective in relieving the congestion, there are a number of surgical procedures. The tear ducts are opened or, if necessary, new drainage routes are created (with a bypass).

Injuries
Serious injuries of the eyelids can lead to an obstruction of the tear drainage routes. The causes are, aside from the injury itself, scars which can develop weeks after the trauma. In these cases, the lids and the tear ducts must be surgically reconstructed. A scrupulous surgery and early treatment are key for a good functional and cosmetic result.

Children
It sometimes occurs in new-borns that a mucous membrane crease at the entrance to the nasolacrimal duct does not open (Hasner's valve). This is known as congenital dacryostenosis. The diagnosis is made in our special consultation for lid disorders. In most cases, the opening occurs spontaneously within the first year of life. If the tear duct has not opened by then, it is probed under anaesthesia, widened and possibly temporarily stented.



Congenital dacryostenosis in a child. An accompanying eye discharge (festering secretion) is typical.

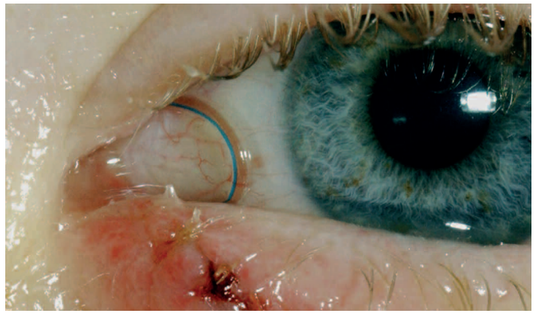
New: Endoscopic Tear Duct Surgery

For the first time in Saarland, restricted tear ducts can be especially gently treated with a minimally invasive endoscope with an integrated drilling system. The endoscope has an extremely thin diameter of merely 0.8mm, allowing the entire tear duct to be probed. The advantage for the patient is the minimally invasive approach: With the endoscope, congestions or constrictions can be localised without a scalpel and can be severed with the micro-drill. This treatment is exceptionally gentle and leaves no scarring.

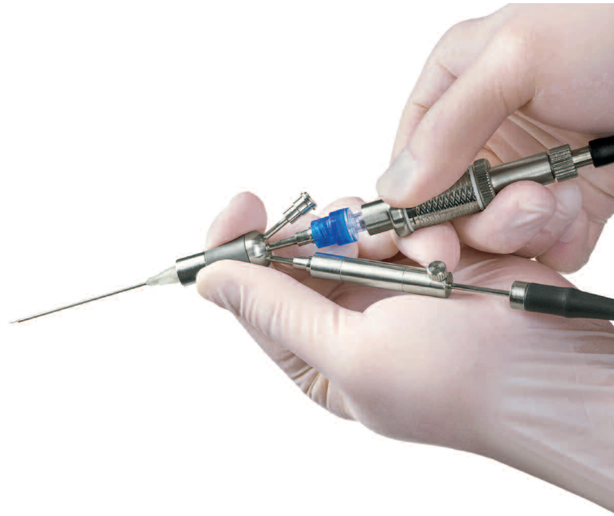
Tear Duct Stents
In so-called canalicular intubation, we insert a ring-shaped silicon tube or a special silicon probe through the tear dots into one of the dear ducts. The tube rests in the tissue for 3–6 months before it is removed. The silicon tube functions as a placeholder, so that no new adhesions or congestions arise.

Ritleng Probe (Endonasal Intubation)
The stenting of the complete tear duct is done with a silicon tube. We insert the tube through the tear dots and the nose. It rests in the tissue for 3–6 months before it is removed.

Toti Operation (Dacryocystorhinostomy)
If the obstruction of the tear duct cannot be eliminated, a bypass from the lacrimal sac to the nose must be created. A bone window is formed over the lower eyelid and the lacrimal sac is exposed and opened. We then produce a new drainage into the nose.
New: The Toti Operation can now be performed, endoscopically.



Ring intubation into the tear duct and lid edge seam after an injury.



An Overview of Our Main Treatments

Aesthetic Lid Surgery

- Drooping Eyelid Treatment (Blepharoplasty)
- Aesthetic neurotoxin Treatment for Wrinkles (Crows' Feet, Frown Lines)

Plastic Reconstructive Eyelid Surgery

- Benign Tumours such as Chalazion (sty), Xanthelasma, Papilloma or Cysts
- Malignant Tumours such as Basalioma, Squamous Cell Carcinoma, Sebaceous Carcinoma
- Advancement Flap and Rotation Flap Surgery, Free Grafts and Hughes Flap Reconstruction, Oral Mucous Membrane Transplant
- Eye Lid Deformity Correction (Ectropion, Entropion)
- Scar Removal
- Hanging Upper Lid (Ptosis) Treatment
- Eyebrow Ptosis Treatment (Brow Lift)
- Platinum Implants for Facial Nerve Palsy
- Treatment of Inward Growing Eyelashes (Distichia)
- Eyelid and Periorbital Infectious Disease Treatment
- Orbita Tumour Treatment
- Endocrine Orbitopathy Treatment
- Anophthalmia Therapy (Enucleation, Evisceration, Orbia Implants, Recovery of Prosthesis Capability)
- Neurotoxin Treatment for Blepharospasmus, Facial Hemispasm, Upper Eyelid Retraction

Cutting Edge Tear Duct Surgery

- Tear Duct Congestion Surgery (Endoscopic Tear Duct Surgery, Dacryocystorhinostomy following Toti)
- Tear Duct and Drainage Disorders
- Radiological Tear Duct Representation (in Cooperation with the Radiology Department)
- Inflammatory Changes in the Lacrimal Gland and Tear Ducts and Dysfunctions
- Tear Duct and Lacrimal Gland Tumours

Further Frequently Asked Questions About Your Eyelid Surgery

Which medicine do I have to stop taking?
If you are taking blood thinners or anticoagulants, you should stop taking them before the operation. Please consult your physician, beforehand. You may temporarily need a substitute medication.

Will I experience pain after the operation?
That depends on the type of operation. Over-the-counter painkillers usually suffice. It is important that you do not take acetylsalicylic acid (Aspirin), as it can lead to secondary bleeding.

Is a light foreign body sensation normal?
Often after surgery the lid closure is not complete due to swelling and the eye experiences increased dryness. Artificial tears and perhaps a nightly eye ointment alleviate the symptoms. Please consult your attending ophthalmologist.

When will the stitches be removed?
These can usually be removed by an ophthalmologist after 7–10 days.

When can I use makeup again?
Please refrain from using makeup near the wound until it is completely healed.

May I read or watch television?
You may read and watch television. If you experience pain or redness of the eye, you should use artificial tears and relax.

May I drive my car?
Whether you should operate an automobile is different in each case. The eyesight is reduced by ointments or a dry cornea after surgery. Please consult your ophthalmologist, beforehand.

Experience brings Security – Your Advantage at the Sulzbach Eye Clinic

Security
Security is important, especially in a routine procedure. The certified process in our department for Plastic Reconstructive Eyelid Surgery adds the convenience of a modern outpatient surgery centre with the security of an experienced clinic to back it up.

Experienced Team
As a specialised centre for micro-invasive eye surgery, we build upon the experience of 20,000 operations per year. Experienced eye surgeons and a seasoned team at the clinic see to the best possible restoration of your eyesight.

Individual
Your eyes are unique and that's how we treat them. That's why we custom fit the surgical method and possible lid implants exactly to your needs.

Quality
We exclusively use the highest quality materials, without additional charge.

Innovative
As one of the largest eye clinics in Germany, we play an active role in the scientific development of eye surgery. This allows for participation in the newest products in equipment technology and implants. That's why we, as one of the few centres in Germany, can offer the revolutionary endoscopic tear duct surgery and the especially gentle platinum implants.

Modern Premises
After the renovation phases in 2011 and 2015, 7 state-of-the-art operating theatres are used for 20,000 eye operations per year. This was a great step towards state-of-the-art medicine. With the current outpatient renovation until the end of 2016, we will offer a fundamentally modern outpatient surgery centre and one of the largest outpatient eye clinics in Germany with an area of 2,500 m2: For high-quality diagnostics with a comfortable atmosphere for our patients.

Comfort station with a hotel feeling
For an exceptionally pleasant outpatient experience, we suggest our comfort station.

Security and individual consultation, satisfied patients and good vision – we are here for you!

Directions

Sulzbach Eye Clinic
An der Klinik 10, 66280 Sulzbach

Train: Take the ICE from Karlsruhe towards Paris, transferring in Saarbücken Hbf. From there, take the direct connection with the lines from/to Saarbrücken/Trier and Neunkirchen/Kaiserslautern.

Bus: From Saarbrücken (Stops: Johanneskirche/Rathaus), take the Saartallinie lines 103, 104 from Friedrichsthal and Spiesen-Elversberg and Klarenthal.

Automobile: Coming from Neunkirchen or Saarlouis on the A8: At the Friedrichsthal motorway junction change to the A 623 using exit 3 (Sulzbach, Quierschied) and follow the signs to Sulzbach. Coming from Saarbrücken on the A 623, take exit 3 (Sulzbach, Quierschied) and follow the signs to Sulzbach.

Airplane: We are a 16 minute drive from the Saarbrücken-Ensheim airport (www.flughafen- saarbruecken.de). Follow Balthasar-Goldstein-Straße to L108 (500 m) and continue on the L126 to “An der Klinik” in Sulzbach/Saar (13.8 km). Take the bus line R 10 to Saarbrücken main station (27 minutes) and then take the regional train to Sulzbach train station.
Alternatively, you can take a taxi or the airportshuttle transfer.
Timetable information: www.saarfahrplan.de

We wish you all the best for your eye surgery
Your Sulzbach Eye Clinic Team

Call Center for Appointments
06897 / 574-1121

AUGENKLINIK SULZBACH

www.augenklinik-sulzbach.de

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