

A close-up, high-angle photograph of a person's eye. The eye is looking slightly downwards and to the right. The iris is a vibrant, artificial-looking blue color, likely a contact lens. The surrounding skin is a warm, light brown tone. The lighting is soft, highlighting the texture of the skin and the detail of the eyelashes.

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- iLasik
- CustomVue Lasik
- Laser Treatment
- Astigmatic Correction
- Cataract Surgery
- Glaucoma
- Diabetic Eye Problems
- Refractive and Corneal Surgery
- Contact Lens Implants
- Multifocal Lens Implants
- Botox Treatments

iLasik The iLASIK procedure is a 100% blade-free Advanced CustomVue laser procedure to correct refractive errors including hyperopia, myopia and astigmatism. Your eyes are as unique as your fingerprint. Advanced CustomVue addresses your eyes' distinct characteristics using the WaveScan WaveFront System to capture each eye's unique imperfections with far greater accuracy than ever before possible. Like a topographical map showing the surface features of a landscape, WaveScan Technology creates a detailed map of your eye's optical system. The system translates that information into completely personalized digital treatment instructions and sends them directly to the STAR S4 IR Excimer Laser System.

There are two steps in the iLASIK procedure. First, the

that require reshaping. With the iLASIK procedure, the correction is ultra precise and truly personal, and better results are expected for each individual with this system.

Cataract Surgery Over half the people over 60 years of age are affected by cataracts, which is a progressive 'clouding' of the eye's natural lens. Symptoms include a gradual blurring or dimming of the vision, glare, light sensitivity, double vision, frequent spectacle prescription changes, poor night vision, fading of colours and needing brighter light to read. With no medical treatment to reverse or prevent cataracts, the only means of re-establishing clear vision is to physically remove the cataract through surgery. Micro-incision cataract surgery offers a safe and quick alternative to



surgeon creates a micro-thin corneal flap with an advanced 5th generation Femtosecond laser, which is lifted to expose the inner cornea for step two, tissue ablation by an excimer laser. During step 1 tiny pulses of laser light pass harmlessly through the outer portion of your cornea and form a uniform layer of microscopic bubbles just beneath the surface of your eye. The surgeon can lift the corneal flap by gently and easily separating the tissue where these bubbles have formed. During step 2, Advanced CustomVue individualized laser vision correction with the VISX Star S4 IR system is used to reshape the cornea to correct the refractive imperfections of your eye. The Advanced CustomVue Procedure provides a new level of precision in treatment alignment with VISX Iris Registration. The procedure is not affected by the patient's eye movement during treatment and minimizes correction to only those areas of the cornea

facing progressive blindness and is done through a 2,2mm incision under topical anesthesia, with a phaco-emulsification technique. Then to replace the natural one, an intra-ocular lens is implanted. IOL options include monofocal, multifocal, toric, multifocal toric and accommodative IOL's. No stitch, no needles, no patch, no general anaesthesia.

Multifocal Lens Implantation

As we grow older we lose the ability to focus at near and intermediate distances, resulting in the need for reading, bifocal or multifocal spectacles. This normal age-related condition is called presbyopia and affects everyone by the age of 50. When the natural crystalline lens of the eye is removed during cataract surgery it can be replaced by a man-made multifocal intra-ocular lens.

The power of the lens is determined pre-operatively to give you good distance, near and intermediate vision without spectacles. The surface of the new generation multifocal IOL's has a wave-front based design, taking into consideration the aberrations of the eye. This means that post-operative quality of vision, as well as contrast sensitivity is better than with the older type lenses. Toric multifocal IOL's are also available to correct pre-existing astigmatism.

Implantable Contact Lenses (ICL / IPCL) For patients with high degrees of shortsightedness or farsightedness, who wishes to be less dependent of spectacles or contact lenses, the implantable contact lens (ICL/IPCL) offers a life-changing

condition that affects everyone over the age of 40 and results in progressive difficulty focusing on near objects, like reading, using your cell phone and computer work. Although reading glasses can correct the problem, most people find it frustrating to have to pull out a pair of spectacles whenever they want to look at something close-up. Fortunately there are a few surgical options that can help improve the situation.

MONOVISION: When your dominant eye is corrected for distance vision and your non-dominant eye for near vision it is referred to as monovision. This can be accomplished by either iLasik corrective laser treatment or by intra-ocular lens implant surgery (during cataract surgery). This will make one much less dependent on reading glasses post-operatively.



experience, and may be more suitable than laser surgery. ICL surgery involves implanting a refractive lens – similar to a soft contact lens – between the iris and the eye's natural lens. The procedure is suitable for patient between the age of 18 and 40, who have healthy eyes and do not suffer from corneal disease or glaucoma. The procedure is performed under topical anesthetic and takes about 30 minutes per eye. It is safe and predictable and virtually painless, and vision improvement is almost immediate, creating a better quality of life. Toric ICL's/IPCL's are also available to correct pre-existing astigmatism. These lenses can also be implanted in the anterior chamber of the eye.

Presbyopia Treatment What is Presbyopia? Presbyopia is a normal age-related eye

PRESBY-LASIK: Conventional LASIK procedures in Cape Town reshape the eye's surface so it can focus better at either a near or far range, depending on whether you are farsighted or nearsighted. Sophisticated technology now enables multiple or progressive zones to be incorporated by reshaping the cornea into precise contours that alter the way light rays enter the eye to achieve focus. Presby-Lasik creates a multifocal cornea and is an attractive option to make you less dependent on reading glasses.

FLEXIVUE CORNEAL INLAY: The Flexivue micro-lens implant procedure is safe, effective and reversible and is suitable for presbyopic patients with good distance vision, but poor near vision, between the ages of 45 and 60. The tiny lens is implanted in the non-dominant eye

into a corneal pocket created by a Femtosecond laser. Most patients report improvement in their vision almost immediately and most resume their normal activities within a day or two.

MULTIFOCAL INTRA-OCULAR LENS IMPLANTS:

Multifocal IOL's are becoming increasingly popular for use during cataract surgery. It allows most patients to be independent of spectacles for distance, near and intermediate vision. Toric multifocal lens implants are available to correct pre-existing astigmatism.

PRESBYOPIC IMPLANTABLE CONTACT LENSES

(IPCL): Now available is an implantable presbyopic contact lens (IPCL) that can not only correct your myopia or hyperopia, but also presbyopia. This new IPCL can

Corneal Transplant Surgery

Because the Femtosecond laser is able to cut corneal tissue at precise depths and in a variety of patterns, it has brought significant improvements to the outcomes of corneal transplantation eye surgery since its introduction. Penetrating keratoplasty (PK), one of the more established techniques, has benefited greatly from the technology.

Femtosecond laser technology also enables surgeons to divide donated corneal tissue into anterior and posterior lamellar segments for use in partial thickness and Descemet-stripping endothelial keratoplasty (DSAEK).

Anterior Lamellar Keratoplasty (ALK) is a partial thickness graft utilizing Femtosecond laser technology



make you independent of spectacles for both distance and near vision, while retaining your own natural crystalline lens. It is therefore suitable for people between the age of 45 and 55 who require correction for both distance and near vision.

The IPCL is like a soft contact lens that is inserted into the eye through a 2.8mm incision and is placed behind the iris, in front of your natural crystalline lens. This safe and reversible new surgical technology provides excellent quality of vision and fast recovery. Your natural corneal asphericity is retained and no corneal tissue is removed. Because your natural lens remains in your eye, accommodation is preserved. Results are very stable over time and there is no regression.

to selectively remove the diseased anterior layers of the cornea and preserves the two healthy innermost layers, the endothelium and Descemet's membrane. As the inner layers are retained the body does not recognize the donor tissue, hence there is less risk of rejection. This technique is typically used for the treatment of Keratoconus.

The DSAEK corneal transplant technique uses the femtosecond laser to remove the unhealthy, diseased, posterior portion of a patient's cornea. It is replaced with healthy donor tissue obtained from the eye bank. It is indicated for patients suffering from endothelial corneal disease or cloudy corneas. Unlike conventional corneal transplant surgery known as penetrating keratoplasty (PKP), the DSAEK procedure utilizes a much smaller surgical incision and requires fewer corneal

sutures. This usually results in more rapid visual rehabilitation for the patient and also better post-operative visual acuity.

Pterigium A Pterigium is a growth on the white of the eye that typically develops in people who live in hot climates and may represent a response to chronic dryness and exposure to the sun. It usually starts growing on the nasal aspect of the conjunctiva and can grow over the cornea. Chronic redness of the eye and eye irritation could be an indication that surgical removal is necessary. It becomes medically necessary for surgery as soon as it starts growing over the cornea, to prevent permanent corneal scarring and reduced visual acuity. We are using the most up to date technology to

graft that selectively removes the diseased anterior layers of the cornea and preserves the two healthy innermost layers, the endothelium and Descemet's membrane. As the inner layers are retained the body does not recognize the donor tissue, hence there is less risk of rejection, and steroid medications need not be continued for a long duration. This is done with the femtosecond laser.

Glaucoma Glaucoma is a condition of increased pressure within the eyeball that causes gradual loss of sight. It often occurs very slowly without any noticeable symptoms, and if left untreated causes peripheral visual field loss, eventually leading to tunnel vision and blindness. Glaucoma is hereditary and regular



prevent recurrences. Tisseel tissue glue is used in stead of stitches - this results in less irritation, redness and light sensitivity post-operatively.

Keratoconus Treatment Clinical studies have demonstrated that progressive Keratoconus can be stabilized by corneal cross-linking. Progressive corneal thinning is therefore slowed down or even stopped. Although this treatment is not normally aimed at improving vision, it stabilizes the cornea and prevents further deterioration in vision. Kera rings or Ferrara rings are tiny plastic semicircular rings surgically implanted into the cornea to flatten the corneal surface and improve vision in patients with Keratoconus. Deep anterior lamellar keratoplasty (DALK) is a new method of corneal transplant procedure. It is a partial thickness

screening tests are therefore very important. While timely diagnosis and treatment can prevent further vision loss, it cannot repair any damage already done. Glaucoma patients should have intra-ocular pressure tests every 4 months and visual field analysis and OCT retinal tomography at least once a year. Methods of treatment include special eye drops to help regulate the intra-ocular pressure, or laser surgery to make one or more tiny openings within the eye structures to help increase the natural eye-fluid drainage rate. Special Glaucoma Implants, such as the MiniXpress implant, can be implanted by us.

Diabetes Diabetes is a metabolic disease caused by either a lack of insulin or the presence of factors that oppose the action of insulin. The end result

is an increase in blood glucose concentration (hyperglycemia), which means that there is too much sugar in the blood. Diabetes is diagnosed by a blood glucose test, and there are two types of diabetes; Type 1 (Insulin dependent diabetes) and Type 2 (Non-insulin dependent diabetes). When the blood sugar is constantly or frequently high, many complications occur: eyesight can suffer, heart attacks and other blood vessel problems can occur. In Diabetic Retinopathy the blood vessels of the retina become abnormal and may develop tiny leaks, causing fluid or blood to seep into the retina. The retina then becomes wet and swollen, affecting the vision. The retinal blood vessels in diabetic patients can also close. The areas of the retina in which the blood vessels have closed then foster the growth of abnormal new blood vessels, called Neovascularization, which can

Macular Degeneration Macular degeneration is the name given to certain conditions affecting the retina, which causes loss of central vision. The macula is the small central part of the retina of the eye, which allows detailed vision. The most common symptoms are blurring of vision with particular difficulty discerning details, both up close and from a distance. It may cause blind spots, resulting in dark or empty areas in the center of the field of vision. It may also cause distortions of lines and shapes and colour vision may be diminished. Peripheral and night vision usually remains unaffected. The early signs of AMD are usually detectable in a thorough eye exam, even before the disease begins affecting the vision. The tests include visual acuity measurement, the Amsler grid test, colour vision testing, Optical coherence testing (OCT) and a Fluores-



cause blindness by bleeding into the vitreous cavity. It can also cause the development of scar tissue, which can pull the retina loose (called a traction retinal detachment). Fluorescein angiography and Argon laser treatment can be very helpful in the treatment of diabetic retinopathy. Fluorescein angiography involves an intravenous injection of dye that travels throughout the body, including the blood vessels of the eye. A special digital camera records a series of images to identify the exact location of the problem. Argon laser treatment can then be used to seal the leaking blood or to destroy the diseased portion of the retina to stop the growth of neovascularization. Essentially, the major purpose of laser treatment is to prevent further visual loss. Avastin injection and Diabetic Vitrectomy surgery is used by us to treat Diabetic Retinopathy.

cein Angiogram (FA). Laser photocoagulation can help some people suffering from wet AMD. Photodynamic therapy (PDT) with Avastin or Lucentis injection is a laser treatment that may benefit some cases of wet AMD. PDT reduces the risk of further vision loss, but cannot restore vision already lost. Early treatment leads to better outcomes.

Retina Surgery Symptoms that may indicate a retinal problem include floaters, light flashes, distorted, wavy, blurry or double vision, blind spots, and a veil moving across your field of vision. Some of the retinal procedures offered at our clinic are Retinal detachment surgery, Macular hole surgery, Vitrectomy surgery and Epi-retinal membrane peel surgery.

Yag Laser Sometimes after cataract surgery, the posterior capsule that supports the implanted lens becomes cloudy. This is called an "after cataract", and causes blurry vision. With the Yag laser, an opening can be made in the centre of the capsule to restore your vision. The procedure is called a Posterior Capsulotomy, and is painless, takes about 15 minutes, and requires no recuperation.

Yag laser can also be used in some patients for the treatment of Glaucoma.

Argon Laser This is a retinal laser and is used to seal leaking blood vessels, or to prevent abnormal blood vessel growth. It is often used in

Eyelid Rejuvenation (Blepharoplasty) Loose skin over your eyes or fat bags under your eyes can make you look tired or sad or older than you feel. As we go through life, even if we have taken care of ourselves, the skin around our eyes stretches and wrinkles. Fatty deposits cause the upper lids to sag while under the eye the tissue can bulge forward and become discoloured. In severe cases, vision can become partially blocked.

Through modern techniques and advances in an eyelid rejuvenation procedure called Blepharoplasty, your doctor can help restore a more youthful, alert and healthy look to your eyes. Excess skin, muscle and fatty tissue that tend to accumulate in the inside corner of the



Diabetic Retinopathy and other eye conditions. Argon laser is also used to treat retinal detachment and Glaucoma.

Botox Botox injection is a revolutionary wrinkle reduction procedure that can reduce or eliminate wrinkles in the upper third of the face, including forehead lines, frown lines between the eyebrows and crow's feet around the eyes. It is not surgery. There is no chance of scarring. It is safe, and you can resume all your activities immediately after treatment. Since every individual is unique and has special needs, a personal consultation will be necessary. Ask your doctor to determine if you are a candidate for Botox injection. Botox can also be used to treat Blepharospasm (involuntary spasm of the muscles around the eyes).

eye, next to the nose, will be removed. Bruising and swelling is common after surgery, and will be noticeable for 1 week to a month after surgery. Post-operative discomfort is usually mild, and most patients require little, if any pain medication.

If you want to look as good as you feel, ask your doctor if you are a candidate for Blepharoplasty.

We also do reconstructive eyelid surgery.