



SURGICAL INFORMATION PACKAGE



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(3937)**

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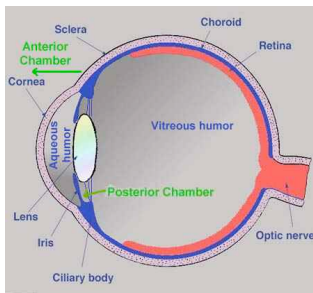
WELCOME!

Your vision is a precious commodity, so we appreciate the trust you've put in LASIK PROVISION to perform your laser vision correction. We know this procedure has the potential to change your life immensely and this is an exciting time for you, anticipating the comfort of being able to perform daily activities without glasses or contacts. This is also a time to gather information. In our experience, a well-informed patient with realistic expectations has the most satisfying outcome. This information package should answer most of your questions, providing details regarding benefits, potential complications and the pre-operative, surgical, and post-operative process.

At LASIK PROVISION we are committed to providing the best visual results possible. You may have first been attracted to our clinic because of our affordable pricing, but your decision to have surgery with us should rest in the fact that we utilize the latest technology, and the most experienced and dedicated staff and surgeons. This allows us to give you uncompromising patient care. Following these standards, we are committed to treating only those patients that are suitable candidates for laser vision correction. The final determination of your candidacy can only be made after a full eye exam and a review of all information by the surgeon.

We are proud to be innovators and leaders in groundbreaking surgical standards developed right here at our clinic. Our standards of excellence keep the number of our success stories growing everyday.

HOW THE EYE WORKS



Understanding the way the eye works may be helpful in understanding laser vision correction.

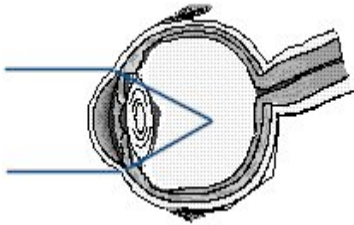
LASIK and PRK procedures reshape the cornea, the clear surface on the front of the eyeball. The cornea contributes significantly to the focusing power of the eye. Most of the cornea is made up of the stromal tissue layer. This layer does not regenerate once removed. The excimer laser produces a gentle beam of light that removes microscopic layers of the stroma. This process, known as photoablation, changes the shape of the cornea, resulting in an image that is more finely focused on the retina. This means that we can promote a permanent reshaping of this tissue, which results in an increase in the ability of your eye to focus without spectacles.

The individual components of the eye work in a manner similar to a camera. Each part plays a vital role in providing clear vision. Light rays enter the eye through the transparent cornea, which takes rays of light and bends them through the pupil, the dark, round opening in the center of the colored iris. The lens of the eye is located immediately behind the pupil. The purpose of the lens is to make adjustments in the path of the light rays in order to bring the light into focus upon the retina, the membrane that lines the inside back wall of the eye. The cells of the retina send the information brought by the light to the visual processing areas of the brain where an image is perceived.

As mentioned before, the cornea is a major focusing component of the eye. When the cornea is shaped in a way in which light is not focusing on the retina, there is a refractive error and the vision is not clear. With a change in the shape of the cornea we can correct this refractive error. The light can then become focused on the retina to produce clear vision.

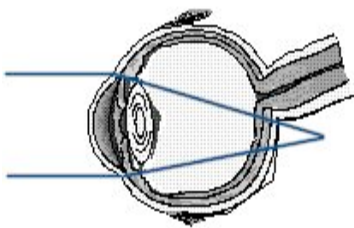
You may have one or more of the following types of refractive errors:

Nearsightedness (Myopia)



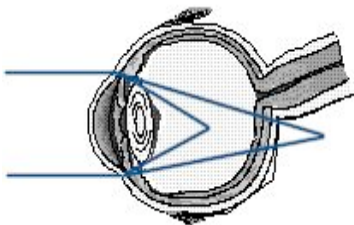
Myopia occurs when light entering the eye focuses in front of the retina instead of directly on it. Myopia is caused by a cornea that is steeper, or an eye that is longer, than a normal eye. Nearsighted people typically see well up close, but have difficulty seeing far away.

Farsightedness (Hyperopia)



Hyperopia occurs when light entering the eye focuses behind the retina, instead of directly on it. Hyperopia is caused by a cornea that is flatter, or an eye that is shorter, than a normal eye. Farsighted people usually have trouble seeing up close, but may also have difficulty seeing far away as well.

Astigmatism



Astigmatism occurs when the cornea is oval like a football instead of spherical like a basketball. Most astigmatic corneas have two curves – a steeper curve and a flatter curve. This causes light to focus on more than one point in the eye, resulting in blurred vision at distance or near. Astigmatism often occurs along with nearsightedness or farsightedness.

Presbyopia

Presbyopia occurs when the natural lens can no longer focus on near objects. Accommodation is the eye's way of changing its focusing distance: the lens thickens, increasing its ability to focus close-up. At about the age of 40, the lens becomes less flexible and accommodation is gradually lost. It's a normal process that everyone eventually experiences. **Unfortunately, to date, a laser vision correction procedure that can completely manage this condition effectively does not exist.**

Monovision

Monovision describes a situation where one of the eyes, typically the dominant eye, is corrected for distance and the other eye is left slightly nearsighted to help with reading. There is typically a period of adaptation required, with the most successful patients being those who have experienced monovision with their contact lenses. It is not recommended, however, for patients who require optimal distance or near correction, and/or astute depth perception, as these will be slightly compromised.

SURGICAL PROCEDURES

LASIK (Laser In-Situ Keratomileusis)

LASIK is an advanced laser vision correction procedure, which involves making a thin flap on the surface of the cornea with a microkeratome, which is a precise flap-making instrument. In creating the flap, a hinge area is created at the twelve o'clock position, which allows the surgeon to lift the flap and to reshape the exposed cornea.

A state-of-the-art excimer laser is used to reshape the cornea, removing a precise amount of corneal tissue from the exposed corneal bed. The pre-operative examination determines the power of your eye, which enables us to calculate the amount of tissue to be removed. Recent prescriptions for your glasses or contact lenses are usually very close to these measurements.

The flap is then laid back and within minutes natural forces hold it down on the cornea. The epithelium, or surface layer of the cornea, begins to grow over the cut edge within a few hours to seal the flap into position. Collagen bonds start to form within the cornea and around the edge of the flap within days, permanently sealing it.

Myopia (nearsightedness), hyperopia (farsightedness) and astigmatism can be treated using LASIK. At this time, however, presbyopia can not be corrected by laser treatments.

When having LASIK, you have different treatment options to enhance your outcome. Your optometrist and surgeon at LASIK PROVISION will recommend the procedure of choice for your eyes. Bausch & Lomb Zero Compression Hansatome Keratome and Zyoptix are the newest technologies available to you and are described in the next section.

PRK (Photorefractive Keratectomy)

PRK is generally used for patients whose corneas are too thin to allow for the creation of the LASIK flap safely. PRK is a refractive surgery in which the central epithelium, or surface layer of the cornea, is removed by the surgeon, and then the corneal bed is directly reshaped with the laser.

The surgeon may choose to use an anti-inflammatory compound Mitomycin C on some patients. Mitomycin C is a powerful pharmaceutical agent which inhibits haze in patients post PRK. It is highly recommended to use Mitomycin C on all patients with greater than -4.00 D prescriptions who are having PRK since these patients are at greater risk of the complication of haze formation post operatively.

To promote healing and comfort, a bandage contact lens is placed on the cornea. The corneal epithelium will heal within 4-5 days in the average patient. During this period, it is recommended that you are monitored daily by our optometrists or your eye care professional until the contact lens is removed.

After the contact lens is removed, the follow-ups are usually more spaced out. Because there is no flap created, restrictions with physical activities are less than what is imposed upon LASIK patients.

Myopia (nearsightedness), hyperopia (farsightedness) and astigmatism can be treated using PRK. Again, presbyopia cannot be corrected by excimer laser treatments.

If you are having PRK, it probably means your corneas are thinner than average, your prescription is higher or both. Your optometrist may recommend Zyoptix or Mitomycin or both in order to get the optimal visual outcomes.

Custom Wavefront Technology

LASIK PROVISION SYRACUSE offers Wavelight ALLEGRETTO™ CUSTOM WAVEFRONT LASIK and PRK. This technology provides customized laser, tailored to the patient's individual needs.

A new algorithm and laser treatment pattern is generated for every person by the new Custom Wavefront technology. The entire optical system of the eye is analyzed to detect minute irregularities and distortions called aberrations. The Allegretto Wave uses wavefront technology to automatically compensate for the curvature of the cornea. In other laser correction systems, the "optical zone," or area of correction, is centered on the front of the cornea; the result is a flattened circular area that ended with an abrupt edge, causing unwanted side effects like poor night vision, glare, and halos.

Allegretto Wave uses an innovative proprietary treatment that is adjusted to the patient's individual corneal curvature. The Allegretto Wave sends extra pulses to the peripheral cornea area in order to compensate for the angle of the laser. In this manner, the spherical shape of the cornea is preserved to a degree that other lasers simply cannot achieve. This compensation, combined with the incredibly small, 1mm size of the laser, produces a smooth, effective optical zone that results in what can only be described as high performance vision.

FDA clinical trial results of the Allegretto Wave reveal:

- **100%** of patients after WAVEFRONT CUSTOMIZED treatment achieved **20/40 or better** vision without wearing glasses or contact lenses (the level of visual acuity required to pass most driving tests).
- **93%** of patients after WAVEFRONT CUSTOMIZED treatment achieved **20/20 or better** vision without wearing glasses or contact lenses.
- **76%** of patients after WAVEFRONT-OPTIMIZED treatment achieved **20/16 or better** vision without wearing glasses or contact lenses (after treatment these patients saw better than 20/20 without wearing glasses or contact lenses).
- **93%** of patients saw as well or better without glasses or contact lenses after treatment than they did with glasses or contact lenses before treatment.
- **94%** of patients treated with the WAVEFRONT-OPTIMIZED procedures were **within 0.5 D of intended refraction**.
- **All patients** with glare and night driving glare before surgery experienced **less glare** symptoms after WAVEFRONT CUSTOMIZED treatment.
- Both near- and far-sighted patients reported an **improvement in their reaction to bright lights and night driving glare** after Allegretto Wave treatments. In addition, near-sighted patients reported an **improvement in sensitivity to light**.
- Patients receiving WAVEFRONT CUSTOMIZED treatments showed **no loss in contrast sensitivity** (the ability to see detail at low light levels such as seeing in dusk, rain, fog, snow fall, and at night).

These results are unparalleled by any other laser treatment.

ICL (Implantable Contact Lens)

This procedure can be offered to patients who have high myopia or hyperopia that are not candidates for LASIK or PRK. Dr. Taylor uses the Collamer ICL™, which is an implantable lens, similar to a contact lens. The ICL is placed inside the eye instead of on the cornea (the surface of the eye). The lens is soft and thin like your natural lens, but does not replace it. It therefore does not cause you to lose the natural accommodative reading power of your natural lens. The Collamer ICL produces highly accurate

visual correction without removing tissue from your eye, or interfering with your central optical axis. It is completely reversible.

CLE (Clear Lens Extraction)

This procedure is usually offered to patients who are very farsighted and who are presbyopic and are not candidates for LASIK or ICL. The procedure is the same as a cataract extraction, except there is no cataract to remove. The clear lens inside the eye is removed surgically and replaced with an intra-ocular lens that corrects the refractive error of the eye. Multiple styles of intra-ocular lenses are now available that offer patients the option of obtaining multifocal vision for distance and near and wavefront correction for higher order aberrations.

CANDIDACY

Contact Lens Policy

Contact lenses are worn in order to correct your prescription without wearing spectacle lenses, but since the lenses rest on the eye, the lenses can “mold” the corneal surface and cause changes in the corneal curvature. Since this may lead to a change in your prescription (refractive error), we require that you stop wearing your contact lenses prior to your appointment (see chart below) and wear only glasses. This will ensure proper calculations of your cornea so that an appropriate treatment to correct your refractive error is offered to you.

Removal time prior to Pre-Operative Evaluation

| Contact Lens Type | Length of time to be out of contacts |
|---|---|
| All SOFT contacts | 7 days |
| Rigid Gas Permeable (worn for less than 20 years) | 2 months |
| Rigid Gas Permeable (worn for more than 20 years) | 3 months |
| True Hard Lenses (Polymethyl-methacrylate) | 3 months |

Please note that this is the MINIMUM length of time for contact lens removal, and that the individual rate of corneal adjusting may vary. If your cornea is still adjusting at the pre-operative or surgery appointment, then you will be asked to reschedule your appointment for a later date. This will ensure the cornea returns to its natural shape, and thus enables you the opportunity to attain the best possible outcome with surgery. Please note that it is your responsibility to adhere to this policy. LASIK PROVISION will not reimburse you for time off work, hotel, airline tickets or any other expenses incurred due to rescheduling.

Preoperative Assessment

Eligibility for LASIK or PRK will be determined at the pre-operative assessment. You must be between 18 and 70 years of age. To ensure a good, stable outcome, it is important not to have had a significant change in your glasses or contact lenses prescription for the last year. The general health of your eyes and other factors may influence your eligibility.

If you have one of the following conditions, you may not be an excellent candidate for LASIK or PRK, as you may have increased risks of complications or risks of a complicated healing process. This may warrant additional care and it should be discussed in detail with your optometrist or surgeon. Some of those conditions include:

- Eye inflammation
- Severely dry eyes
- Certain rheumatological conditions such as lupus or rheumatoid arthritis
- Excessive corneal disease or scarring
- Degenerative disease of the cornea
- Diabetes with advanced retinal disease
- Inadequate corneal tissue
- Use of certain drugs
- Recently given birth, nursing, miscarriage, abortion

PREGNANT women are NOT eligible for surgery. You should wait until you are 6 months postpartum.

Conditions that may alter your outcome

The laser procedure corrects refractive errors (myopia, hyperopia and astigmatism). It does not correct the other vision defects listed below. Some patients with these conditions may still have surgery and the additional risks and side effects will be discussed before deciding whether to have the laser treatment.

1) Presbyopia : The crystalline lens of the eye loses its ability to accommodate on up-close objects as we age. In most people, the process starts to be apparent at around age 40. Presbyopia can be corrected with reading glasses for most patients. Some patients do better with progressive or bifocal lenses, depending on their vision requirements related to their occupation. LASIK or PRK will not prevent or correct the need for reading glasses in patients over 40 years of age. As a matter of fact, the procedures may unmask a previously hidden presbyopia.

2) Cataracts : A cataract is a condition in which the crystalline lens of the eye loses its transparency. If not treated, it causes the patient to have reduced vision even with corrective glasses. The condition is correctable by cataract surgery. LASIK or PRK will not prevent or treat cataracts. However, cataract surgery is an excellent refractive procedure with safe and predictable outcomes which will reduce or eliminate your need for corrective eyewear.

3) Amblyopia : Commonly referred to as lazy eye, amblyopia is a condition acquired during childhood in which no prescription will normalize visual acuity. Some of the causes of amblyopia include strabismus (eye turn) and anisometropia, (a big difference in the prescription of both eyes). LASIK or PRK will not normalize the visual acuity in cases of amblyopia. Also, if the visual acuity in the amblyopic eye is worse than 20/40, LASIK or PRK are not recommended, even in the good eye, since side effects or complications of the procedure to the good eye could cause vision loss because that eye would no longer be able to compensate for the amblyopic eye.

4) Strabismus : Strabismus is a condition in which the eyes are not aligned properly. It is caused by a weakness in the eye muscles. Since LASIK or PRK do not involve operating on the eye muscles, neither will correct, reduce, eliminate or prevent strabismus. Patients with strabismus may develop diplopia (double vision) as a side effect of the laser surgery which may require definitive strabismus surgery. (Incidence: 1 in 100,000)

Informed Consent

Every patient must give informed consent prior to having a medical procedure or treatment performed. The process of consent involves many steps and our surgeons, optometrists and certified ophthalmic assistants are available to answer any of your questions that may arise. The following information will help to guide you through this process.

The Consent Process

- 1) **Optometric Counseling:** To determine your candidacy for laser eye surgery, an optometrist will perform a pre-operative evaluation. During this examination, you will receive counseling regarding the procedure for which you are a candidate. This counseling will include the nature of the surgery, potential benefits of the surgery, and potential risks and complications of the surgery.
- 2) **Surgical Counseling:** On the day of your surgery a surgical counselor will review the surgical information package and consent form with you. He or she will also provide you with post operative instructions regarding follow up visits and activity restrictions to which you will need to consent. The surgical counselor will answer any questions that you may have regarding the surgical information package and consent form. We recommend that you have reviewed these prior to the day of surgery so that we can address any questions that you may have.
- 3) **Surgeon:** Before your surgery, your surgeon will discuss any concerns of potential risks or complications for which you have a greater risk. Your surgeon will discuss and answer any questions that you may have regarding the procedure, surgical information package, consent form, and post operative care prior to surgery. You will be provided with information that is required for a reasonable person in your position to make an informed decision. Your surgeon will discuss and review any and all questions you may have regarding the surgical information package and consent form prior to surgery.
- 4) **Patient Consent Form:** Prior to having your laser eye surgery you will need to sign the patient consent form. This indicates that you are making an informed decision to undergo the procedure and that you have been counseled regarding the procedure, its benefits, risks and alternatives. A copy of your consent form is available to you at your request.

WHAT TO EXPECT

Before Surgery

How to prepare for the Pre-Operative Assessment

- You can expect to be at the clinic for 2-3 hours for the pre-assessment.
- Please bring a pair of sunglasses with you as your pupils will be dilated. This will render you light sensitive for a few hours after the assessment. You may not be able to return to work after the evaluation.
- Please arrange alternative transportation after the pre-operative diagnostic assessment, as dilating drops can render you light sensitive, and your vision blurred, making it difficult to drive and read.
- If traveling from outside Canada, please remember to carry proper identification such as your passport, drivers license and/or other proof of citizenship or residency.
- Our clinic staff will be able to provide you with referrals for travel and accommodation, although these arrangements remain your responsibility.
- Please do not bring children with you to the clinic in consideration of other patients and the nature of your examination.

- You are required to have a complete pre-operative assessment at our clinic before surgery as this information will determine your candidacy. Having a pre-operative evaluation by your own eye care professional is valuable. This, however does not replace the need for a full pre-operative evaluation in our center.

* If you plan on having your post-operative evaluation done outside our clinic, please make these arrangements known to our staff at the time of your initial evaluation at LASIK PROVISION. Our staff will assist you in this process with referrals if necessary. *

* LASIK PROVISION will not be held responsible for any costs incurred for travel and /or accommodation, lost employment income or any additional expenses incurred due to a patient being deemed a non-candidate, rescheduling, delays, or requiring retreatments.*

Pre-Operative Assessment Day

1) Initial Greeting : When you arrive at LASIK PROVISION, you will be greeted by our receptionist who will ask you to fill out a patient information sheet. This will include questions about your general health, ocular health, any medications you may be taking, allergies, and other information that will help our doctors become familiar with your medical history.

2) Pre-Operative Evaluation: A clinical assistant will take you into the Pre-Operative Room where a series of painless tests will be performed.

3) Oculovisual assessment by the Optometrist: Once the testing is completed, an optometrist will review the information, meet with you, and conduct a complete eye exam. Subsequently, the optometrist will be able to determine your candidacy, and the best treatment for you. The recommended procedure will be then explained to you.

4) Pre-Operative Counseling: Lastly, you will meet with the pre-operative counselor. They will discuss details of the appropriate procedure, finances, and book a surgery date for you.

You have 2 months after the pre-operative assessment to book a surgery date. If booked after this time, the pre-operative assessment must be repeated and an additional fee will apply.

How to Prepare for Surgery

You can expect to feel nervous, anxious, or excited prior to your procedure. This is a very natural response.

- Please refrain from wearing any product containing heavy fragrances such as perfume, cologne, lotion, creams, aftershave, etc., as well as using any products that contain alcohol, such as hairspray, aftershave, or mousse.
- Please do not wear eye makeup a minimum of 48 hours prior to surgery. Please ensure your face is free from ALL makeup the day of surgery. For your protection, the procedure may be postponed if makeup is detected.
- There are no restrictions on eating or taking medications before or on your surgery day. (However, please advise us of any medications you are taking).
- Please pre-arrange alternate transportation for after the surgery.
- Be aware your eyes will be irritated and light sensitive following the procedure, and you may not be able to keep the eyes open. This usually diminishes within 24 hours after surgery.
- It is recommended to avoid alcohol 24 hours prior to and 48 hours after your surgery, as this tends to dehydrate the tissues and can delay the healing process.
- Wear comfortable clothing on you surgery day. DO NOT WEAR clothing such as WOOL or fleece that may generate lint in the surgical suite.
- Depending on your occupation, you may need to arrange time off of work (refer to *Time Off Work* information table below for a list of expected times to return to work). Please note these are recommended guidelines, and can differ depending on how the healing process of the eyes.

Time Off Work Information Table

| | | |
|----------|-----------|-----------|
| Low Risk | Mild Risk | High Risk |
|----------|-----------|-----------|

| | | |
|--|---|--|
| No dust, irritants, risk of eye trauma <i>Eg. Office work</i> | Mild dust, irritants, risk of eye trauma <i>Eg. Industrial</i> | Moderate-high dust, irritants, risk of eye trauma <i>Eg. Construction, Policing</i> |
| 0-2 days | 4 days | 1 week |

*Laser Vision Correction is a **MEDICAL PROCEDURE** and, as such, there is a possibility that you might need to extend your stay due to the healing process of your eyes. In this case, any additional travel and/or accommodation fees will be your responsibility.*

Please arrange alternative transportation for after your surgery as we do not advise driving short distances for at least 24 hours and long distances for approximately 3 days after LASIK, and 7 days after PRK.

During Surgery

Surgery Day

1) Meet with the Surgical Counselor: The surgical counselor will explain to you the steps you are about to take towards your surgery. You will be given all the necessary post-operative instructions, such as how to use the eye drops, how/when to wear the goggles/sunglasses, etc. You will sign a consent form (refer to our Informed Consent section for more information on the informed consent process). They will also ensure that all finances are taken care of. You will then be escorted into the pre-operative waiting room, where you will be offered a relaxant pill (Ativan, 1mg). The surgical assistants will call you into the operating room to meet the surgeon, and then proceed with surgery.

2) Surgery: A surgical assistant will show you into the operating room. You will then meet with the surgeon, and discuss the procedure that you are about to undergo. You are then brought to the surgical bed, at which point surgery will take place. Generally, the procedure requires twenty minutes of direct operating room time during which the laser is only used for seconds on each eye. The duration of the procedure varies depending on the type and amount of correction needed.

After Surgery

You will likely experience some degree of discomfort over the first few days after either procedure. During this time, your vision may be blurred in one or both eyes, and your vision will fluctuate throughout the day. You may also experience mild halos at night for the first few days. In some cases, your vision is better initially after the procedure, and then later becomes blurred. These symptoms vary among individuals, and will be monitored at your follow up visits.

Immediate Post-Operative Care

- The surgical assistant will review common symptoms you may experience over the next 24 hours. The assistant will also make an appointment for your mandatory 24 hour post-operative assessment, at our clinic.
- You must wear the goggles or sunglasses provided, as they ensure adequate protection.
- Be aware your eyes will be irritated and light sensitive following the procedure, and you may not be able to keep your eyes open. This usually diminishes within a few hours after the surgery.
- Please follow the drop schedule provided or as recommended by the surgeon.
- Please refer to the Activity Schedule list.

***** WE ADVISE YOU NOT DRIVE FOR AT LEAST 24 HOURS AFTER LASIK SURGERY, AND/OR UNTIL YOUR VISION IS CLEAR AFTER PRK OR LASIK PROCEDURES

Follow Up Visits

Please remember that Follow-up care is as important as the actual procedure. Each Post-operative evaluation at our clinic takes approximately 15 minutes. The optometrist will evaluate the cornea, and the healing process of your eyes, and will guard against infection.

LASIK

- 24 hour visit is mandatory at the LASIK PROVISION Clinic.
- 1 week
- 1 month
- 3 months

PRK

- 24 hour visit is mandatory at the LASIK PROVISION Clinic.
- every day for a minimum of 5 days after surgery. Alternative follow up arrangements may be made on an individual basis. Please contact your refractive counselor.
- every 1-2 weeks after the bandage contact lens removal (for as long as directed by eye care professional)
- 3 months
- 6 months

These visits and all additional medically necessary visits are covered in the cost of the surgery. However, any future visits are subject to a fee UNLESS a Clear Vision Plan is selected. Post-operative visits are ONLY scheduled Monday – Friday; with the exception of the 24 hour visit for surgeries performed on a Friday or Saturday.

**NOTE: If you choose to have your post-operative care performed by your own eye care professional, your doctor will require a post-operative form. Please ask for this at your 24 hour visit at our clinic. In accordance with the Privacy Act, to initiate an exchange of medical information an authorization of release must be completed by the patient. We encourage your co-managing doctor to fax copies of your post-operative visits to LASIK PROVISION so that we can continue to monitor your post-operative progress.*

Post-LASIK Activity Schedule

*Recommended following Uncomplicated Lasik Surgery
unless otherwise directed by the doctor*

DAY OF Lasik SURGERY

- This should be a day of rest.
- Avoid activities where the eye may be poked, rubbed or touched.
- Avoid rubbing your eyes! Use lubricating eye drops to relieve discomfort.
- Avoid staring without lubricating the eyes. (activities such as prolonged reading or watching TV)

Avoid smoking for 1 week, as well as atmospheres that contain smoke, dust or other irritants for 1 week.

1 DAY

- Baths must be taken for one week instead of showering unless protective eye goggles are worn. Avoid getting any soap or water in the eyes.
- Restrict movement to light activities.
- Returning to work is not recommended, however office work at home is acceptable.
- Driving short distances after the eye examination **IF** adequate vision is attained at the post-operative evaluation. Remember to continue with artificial tears.

- Reading, watching TV and computer work, with continuous use of the lubricating drops.
- Flying in airplanes; ensure eyes are generously lubricated (every 15-30 minutes)

2 DAYS

- You may resume office work and computer use (with continued use of eye lubrication).
- Driving can be resumed if adequate vision is confirmed.
- Apply face makeup (but not eye makeup).

3 DAYS

- Exercise without risk to the eyes (treadmill, stairmaster, stationary bike)
- Sexual Activity (avoid touching near the eyes)
- Playing with children (avoid any contact near the eyes)
- Drinking alcohol
- Smoking

1 WEEK

- Showering can resume without goggles.
- Sleeping can resume without wearing goggles.
- Applying eye makeup (be very careful not to rub the eyes when removing makeup)
- Jogging outdoors
- Rollerblading
- Relaxed bicycling (no mountain biking)
- Playing golf
- Lifting weights
- Welding

1 MONTH (with eye protection until 6 MONTHS after surgery)

- Swimming
- Sun-tanning
- Sailing
- Sauna, hot-tubs
- Racquet sports: tennis, squash, racquetball, badminton (always wear eye protection)
- Baseball, basketball, football, soccer, hockey, skiing
- Motorcycling, dirt biking, mountain biking
- Snorkeling
- Scuba diving * (for a maximum of 30 ft. depth)

3 MONTHS (with eye protection until 6 MONTHS after surgery)

- Water skiing
- Surfing, wind surfing
- Kayaking

6 MONTHS

- Scuba diving (any depth)
- Parachuting
- Riding rollercoasters

POTENTIAL COMPLICATIONS

LASIK and PRK are designed to provide the patient with excellent vision in the distance. There is, however, a variable level of risk with any surgical procedure, and hence there is no absolute guarantee that any procedure will be one hundred percent effective. It is possible that complications may arise due to unforeseen causes. This may lead to sub-optimal vision including blurry, double, and distorted imagery which CANNOT be corrected with glasses or contact lenses. In certain circumstances additional surgery may also be needed. To better help you fully understand some of these potential complications, we have divided them into categories pertaining to LASIK and PRK respectively, in order of frequency of occurrence. If you have any further questions in regards to these potential complications, please feel free to consult with the optometrist or surgeon during your pre-operative assessment.

LASIK

Epithelial Abrasion

The epithelium is the most superficial layer of the cornea which is approximately 5 to 7 cell layers thick. Certain individuals are predisposed to having a “looser” layer of these cells. Therefore, when the microkeratome is used to create the flap some of these surface cells slough off. It is still possible to lift the flap and perform laser treatment. Depending on the size and severity of the abrasion, the surgeon might delay the surgery in the other eye, or perform a PRK procedure instead. Patients with a corneal abrasion may experience more discomfort, a longer recovery period and may be at higher risk for developing infection, inflammation, recurrent erosions or flap wrinkles. A bandage contact lens is placed on the eye to allow it to heal and to provide comfort and protection to the patient, and is usually removed 24 -48 hours post surgery. With the newer Zero Compression keratome, corneal abrasions occur in less than 1% of cases.

Edema

Edema describes swelling of the cornea, whereupon the cornea takes up more water than it normally holds. The amount of water the cornea takes up often varies at different times of the day, and is greatest following surgery as it adjusts to the creation of the flap. The cornea has its own method of eliminating the water that it absorbs, however this may take several days to weeks depending on the patient. During this time the patient may experience fluctuating or blurry vision with haloes and glare at night time. If swelling persists, an ointment is used at night time to help the cornea dehydrate. (MuroTMOintment)

Diffuse Lamellar Keratitis (DLK)

One of the body's natural responses to injury is inflammation. White blood cells travel to the site of inflammation to promote healing. In the cornea however, these white blood cells can release chemicals that are destructive to the corneal tissue, and can potentially lead to a permanent loss in best corrected vision if not treated. Most people respond to surgery with a small amount of inflammation and may not have any symptoms at all or may experience blurred vision and tearing. Mild inflammation is managed with steroid drop treatment, however in severe cases, an oral steroid may be used in conjunction with steroid drop treatment and the surgeon may need to re-lift the flap and irrigate the inflammatory cells from the flap interface.

Epithelial Ingrowth

Following flap creation, the cells that make up the corneal surface normally grow over the flap edge to help heal the flap and secure it in place. In certain cases these cells may gain access underneath the flap,

and may continue to grow. Often cell growth ceases on it's own with no visual impact but in cases where ingrowth continues towards the pupil or it threatens vision, these cells can be surgically removed. Epithelial ingrowth is more common in patients undergoing enhancement procedures due to an increase in swelling in these patients and prolonged healing of the epithelium at the flap margin.

Flap Wrinkle

Occasionally after surgery irregular healing of the flap, or flap disruption could result in a wrinkling of the corneal flap. This can result in distortion of vision post surgery, or problems with night vision. Usually these are detected at your 24hr visit, and the surgeon may need to perform a minor stretching of the flap to ensure it remains smooth.

Debris under the flap

Occasionally, despite all efforts and because LASIK surgery cannot be performed in a vacuum, a small amount of debris from the instruments used, oil from the tear film or floating material from the fornix can get trapped under the flap after the surgeon has completed the LASIK procedure. Normally these particles have no effect on vision, but if present on the visual axis or if threatening to cause infection or inflammation, the surgeon may decide to irrigate beneath the flap to remove this debris. This is a minor procedure.

Fragility on Impact

Due to the nature of the corneal flap, it is considered fragile to direct trauma for at least three months after the procedure. It is therefore extremely important to avoid activities and sports that could involve potential contact with the eye immediately after surgery, and that the proper protective eyewear be worn for at least three months thereafter to prevent any flap complications.

Eyelid Droop

An eyelid speculum is used during surgery to ensure that the eyelids are not able to close during the LASIK procedure. Although the eyelids have a natural tendency to droop with age, the speculum that is used in the procedure may hasten this process slightly. This is an extremely rare complication.

EXTREMELY RARE COMPLICATIONS

Equipment Malfunction

All equipment used during the LASIK procedure, including the microkeratome and excimer laser, are maintained according to manufacturer specifications. However, in rare cases this equipment could malfunction despite regular maintenance which would require the surgeon to stop the procedure before completion. This means rescheduling the procedure, but in some cases it could result in possible damage to the cornea with potential vision loss. This is an extremely rare occurrence, and to date no patient has had any complication related to equipment malfunction resulting in vision loss.

Short Flap

A short flap occurs when the passage of the microkeratome head is interrupted. The resultant flap is incomplete and hence there is insufficient space for the laser treatment. If this occurs, the surgeon will not continue with the laser surgery, and will wait until the short flap has completely healed (approximately 6 months) before reattempting surgery to avoid any additional complications during the follow up procedure. The occurrence of short flap is approximately 1 in 10,000 procedures.

Free Flap

During flap creation the surgeon marks the cornea to ensure perfect alignment of the flap when it is put back down after laser treatment. Very rarely during the surgery the flap can become detached from the cornea. The surgeon may still continue with the laser treatment, as the free flap can be replaced on the cornea with the aid of the markers. Special care must be taken post surgery to ensure that the flap is not displaced. The occurrence of a free flap is approximately 1 in 50,000 procedures.

Ectasia or Irregular cornea due to corneal thinning

In order for LASIK to be performed safely, a certain amount of corneal tissue must remain under the flap in order for the cornea to remain stable. In certain cases, an individual's cornea may be genetically predisposed to being weaker than other corneas of the same thickness. In such "weaker" corneas, the tissue left under the flap is not sufficient to maintain stability and the cornea becomes progressively thinner. This can lead to corneal deformation which may require a contact lens, additional corneal surgery or a corneal transplant to restore vision. The chance of ectasia in a normal eye is 1 in 10,000.

Other Extremely Rare Complications

Other risks include retinal detachment and venous or arterial blockage caused by the temporary elevation of intraocular pressure during flap creation, as well as cornea perforation and possible total blindness. This has never occurred at our clinic.

LASIK & PRK

Dry Eyes

During the creation of the flap, several of the corneal nerves become severed. As a result, there is a reduction in signaling to the brain for tear production, and the eyes may become dry. Patients who have dry eyes prior to LASIK are also more likely to experience dry eyes after the procedure due to this pre-existing condition. The dry eye condition is managed with lubricating eye drops and typically returns to the pre-surgical level of dryness in approximately 6 months, once the nerves regenerate. Occasionally, patients may suffer from severe dry eye for a longer period of time. If so, they may require the insertion of "punctal plugs", which increase the tear film layer on the eye by blocking the normal drainage of tears into the tear duct. These greatly aid the use of artificial tears in restoring a normal tear film.

Infection

Infection is a risk during any surgical procedure and can lead to permanent visual loss. To prevent infection, patients are placed on antibiotic drops following surgery. Severe cases which do not respond to antibiotics may lead to permanent scarring and loss of vision (approx 1 in 50,000), which could result in further corrective laser surgery, corneal transplantation or even loss of the eye (< 1 in 1,000,000). Newer generation antibiotic drops are highly effective in preventing this complication. No cases of infection causing vision loss have been documented at LASIK PROVISION.

Regression, Undercorrection, Overcorrection

Unless otherwise discussed with the surgeon, laser treatment is designed to completely neutralize the refractive error of the eye. Healing varies between individuals, and may override the exact removal of tissue by the laser affecting the treatment accuracy and leading to an overcorrection or undercorrection. Occasionally, even when the laser does initially completely neutralize the refractive error of the eye, the cornea can sometimes replace the tissue removed by the laser. This would result in a portion of the prescription resurfacing, which is known as regression. The amount of regression rarely exceeds more than 25% of the initial prescription treated. Solutions to regression include an enhancement or

retreatment. In a minority of patients where there is insufficient tissue to undergo retreatment safely, glasses or contact lenses can also be used to correct the residual nearsightedness, farsightedness and/or astigmatism.

Halos, Starbursts, Night Vision Disturbances

Often due to the edema that can occur after surgery, patients may experience a halo or starburst effect around lights or bright objects. This typically resolves itself with the disappearance of the corneal edema over the next several weeks to months after surgery. In 1-2% of patients this may be a permanent effect. It is most likely to occur in individuals with larger pupil size and high prescriptions. We recommend for these patients our customized LASIK.

Light Sensitivity, Fluctuating Vision

Due to normal healing and swelling, patients may find that their vision fluctuates until the eye stabilizes, which can last several weeks to months after the procedure. Patients may also be extremely sensitive to light and glare while the eye adjusts to the surgery. For the vast majority of patients, this resolves within 1-2 days of surgery.

Optical Imbalance

In rare cases, the surgeon may elect to perform surgery on each eye on separate days. There may be a temporary imbalance in vision between surgeries causing some focusing problems and eyestrain. This resolves when both eyes are fully corrected. In cases of monovision, where one of the eyes is left intentionally nearsighted, this visual imbalance may be prolonged if the patient has difficulty adapting to the power difference between the two eyes. This can be remedied with the surgical reversal of the monovision if the patient is symptomatic.

PRK

Haze (Excessive Corneal Scarring)

PRK differs from LASIK in that there is no flap creation. Instead the superficial layer of corneal cells is gently removed and the laser applied to the cornea. During the healing process, some patients may develop mild or moderate scar tissue formation in the treated area of central cornea. Generally, this is not visually significant and it will resolve with time. Higher corrections are more susceptible to greater scar tissue formation. An anti-metabolic agent known as Mitomycin C is highly effective to reducing the formation of haze. Corneal scarring or haze is also controlled with a long term steroid course following the procedure. In cases of extensive scar tissue formation which cannot be controlled by steroids or Mitomycin C, the patient may need additional surface treatment known as PTK. These options will be explained in detail by the surgical counselor.

Other Complications

Other very rare side effects include surface hemorrhage, drug reaction and appearance of “floaters” in the vision, which all usually disappear with time.

RETREATMENT POLICY

Re-treatment Eligibility

A patient is eligible for a re-treatment if he or she meets the medical criteria necessary for re-treatment surgery to be performed. Upon approval by the surgeon, a patient is eligible for a re-treatment as stipulated by the Clear Vision Plan, provided the patient has completed the course of post operative examinations as required by LASIK PROVISION. If a patient does not complete the required post operative examinations within the time frames indicated, extra fees may be incurred. Continued eligibility for the one, three and five year Clear Vision Plans depends on annual eye examinations. These examinations may be performed at LASIK PROVISION or at your eye care professional. If a patient does not choose to procure any of the Clear Vision Plan options, than cost of the surgery will be decided by the surgeon based on level of difficulty and risk associated with the enhancement.

Clear Vision Plan

LASIK PROVISION Clear Vision Plan: One Year

The one year Clear Vision Plan covers the cost of re-treatment surgery and post operative exams scheduled at LASIK PROVISION for one year from the date of your refractive surgery. A full eye examination at one year following refractive surgery is also included. Any eye examinations or post operative examinations performed by an eye care professional outside of LASIK PROVISION are not covered. Any necessary re-treatment procedures must be performed within one year of the initial surgery. The cost of the One Year Clear Vision Plan is \$199 per eye. This plan may be purchased at any time up to and including the day of your surgery.

LASIK PROVISION Clear Vision Plan: Three Year

The three year Clear Vision Plan covers the cost of re-treatment surgery and post operative exams scheduled at LASIK PROVISION for three years from the date of your refractive surgery. A full eye examination performed yearly for three years following the date of your initial refractive surgery is also included. Any eye examinations or post operative examinations performed by an eye care professional outside of LASIK PROVISION are not covered. Any necessary re-treatment procedures must be performed within three years of the initial surgery. The cost of the Three Year Clear Vision Plan is \$240 per eye. This plan may be purchased at any time up to and including the day of your surgery.

LASIK PROVISION Clear Vision Plan: Five Year

The five year Clear Vision Plan covers the cost of re-treatment and post operative exams scheduled at LASIK PROVISION for five years from the date of your refractive surgery. A full eye examination performed yearly for five years following your initial refractive surgery is also included. Any eye examinations or post operative examinations performed by an eye care professional outside of LASIK PROVISION are not covered. Any necessary re-treatment procedures must be performed within five years of the initial surgery. The cost of the Five Year Clear Vision Plan is \$275 per eye. This plan may be purchased at any time up to and including the day of your surgery.

WAVELIGHT TECHNOLOGY

ALLEGRETTO WAVE 200Hz LASER

The Wavelight Allegretto Wave™ Eximer Laser is the FASTEST VISION CORRECTION LASER AVAILABLE in the United States. At 200 laser bursts per second, it only takes about four seconds of treatment to correct one diopter. Of course, spending less time under the laser means less stress and discomfort for the patient.

PerfectPulse Technology™

Allegretto Wave excimer laser treatment provides PerfectPulse Technology™ representing a new approach to laser vision correction – it accounts for speed, precision, and safety. **Smart Energy Control** allows the beam, after it has been created, to pass through three checkpoints on its way to your eye. At each of these points, the energy level is checked and adjusted if necessary, ensuring that the beam is perfectly attuned at its destination. Allegretto Wave's PerfectPulse Technology™ places the laser pulses in such a way that only every fifth pulse overlaps. Not only does this preclude unwanted heating effects, it is one of the ways that Allegretto Wave achieves a rounder, more natural corneal surface than many other lasers used for vision correction.

Eye Tracking Technology

Due to the remarkable speed of both the eye and the Allegretto Wave procedure, the laser beam needs to be constantly and minutely adjusted to the position of the eye at any given time. Every 4-6 milliseconds, the eye's location is measured and the internal mirrors of the Allegretto Wave are automatically aligned. Right before the pulse is released, a second check is made to confirm that the eye has not moved. This happens 200 times every second, once for every laser pulse released. If, at any time, the eye moves too quickly to be measured or moves out of range, the laser will stop and wait for the eye to move back into position.

Better Night Vision and Glare Control

Allegretto Wave is able to produce the LARGEST AVAILABLE OPTICAL ZONE, virtually eliminating glare and night vision problems associated with other lasers.

The Hansatome Microkeratome

The microkeratome is the instrument that creates the corneal flap during LASIK surgery. Early microkeratomes created very small flaps between 7-7.5mm and had several components requiring significant maintenance and assembly. The Hansatome microkeratome is a new type of microkeratome, with only three major components. This allows the creation of large flaps that are 8.5-9.5mm in size and vertically oriented, ensuring a large ablation zone for better results. The microkeratome suction ring also produces a gradual suction for maximal comfort.

The Zero Compression Hansatome Microkeratome

Zero Compression microkeratome does not compress the cut flap as the microkeratome advances across the cornea. This technology has shown to be the safest way to create a flap, as per FDA research. It saves corneal tissue by creating a thinner, smoother flap with less swelling. It is gentler on tissues and reduces chances of epithelial erosions (corneal abrasion) and therefore it allows for quicker visual rehabilitation. The thinner flap it creates is a benefit for those who have thin corneas, large pupils or high prescriptions.

ZERO COMPRESSION IS HIGHLY RECOMMENDED TO ALL PATIENTS AND MANDATORY FOR SOME.

Why should I use it?

- I want a safe way of cutting my flap
- I want the latest keratome technology
- I want tissue saving because my prescription is high, or my corneas are thin or I have large pupils
- I have a delicate corneal epithelium and am prone to abrasions from:
 1. Map Dot Fingerprint corneal dystrophy
 2. Diabetes
 3. Dry eyes
 4. Being aged above 30 years old

The Zero Compression Keratome reduces significantly the incidence of abrasion, in comparison to the original Bausch & Lomb Hansatome. Table 1.1 demonstrates this fact.

| Age Category | B&L Hansatome | B&L Zero Compression |
|--------------|---------------|----------------------|
| 18-25 | 2% | 0% |
| 25-30 | 4% | 0% |
| 30-40 | 8% | <<1% |
| 40-50 | 13% | <<1% |
| 50-60 | 17% | <1% |
| 60+ | 23% | 1% |

There is an increased incidence of other complications when a patient has a corneal abrasion following Lasik. Inflammation chances increase to 50%, flap swelling to 50%, epithelial ingrowth to 40%, flap wrinkles to 10%. Comparatively, the chances of the latter complications drop to less than 1% when there is no corneal abrasion. Inflammation is the exception and its incidence is between 1% and 2% without corneal abrasion.

Although the use of the Zero Compression Microkeratome is a surgical option, it has a much higher safety profile. It is strongly recommended that all Lasik patients give serious consideration to utilizing the advanced technology of The Zero Compression Microkeratome when undergoing Lasik surgery.

Corneal Topography (Topolyzer)

The Allegretto Wave Topolyzer is a highly precise instrument which provides corneal power and elevation data of the central anterior and posterior corneal surfaces. The fully integrated diagnostic system acquires 22,000 data points. The Topolyzer provides the refractive surgeon with valuable information in detecting early corneal disease, such as keratoconus or corneal dystrophy that may not be evident on the anterior surface. The Topolyzer also integrates with customized corneal ablations. It is the only topography system utilized by Lasik Provision Syracuse.



Dr. R. Todd Morason's Bio

Dr. Morason is a Board Certified, fellow-ship trained Cornea and Refractive surgeon. A native of Ohio, he did his pre-medical training at Miami University where he graduated *magna cum laude* in 1992. He was accepted into Phi Beta Kappa his senior year. He received his medical degree from the University of Cincinnati College of Medicine in 1996 and the following year he performed his internship at the University of Hawaii in Honolulu. He then went on to complete his residency in Ophthalmology at the Indiana University School of Medicine where he was elected Chief Resident. In 2001, Dr. Morason completed his Fellowship in Cornea, External Disease and Refractive Surgery at the Albany Medical Center and was the recipient of numerous academic awards, including the Castroviejo Cornea Society 2001 Fellow Award.

Dr. Morason has been in practice since 2002, specializing in Cornea and Refractive Surgery. He is currently the Medical Director of Lasik ProVision, and has previously served as Residency Program Director and Director of the Albany Medical Center Eye Clinic.

Dr. Morason has been performing laser refractive surgery since 2001, with extensive experience in LASIK and PRK as well as cataract, cornea and other intraocular surgeries. He has lectured across the country on various topics in Cornea and Refractive surgery, and was a surgical instructor for the Intensive Cataract Training Course at Harvard University.

Dr. Morason is Fellow in the American Academy of Ophthalmology and is also a member of the American Society of Cataract and Refractive Surgery, the International Society of Refractive Surgery, Castroviejo Cornea Society, American Board of Ophthalmology, American Medical Society, and American Mensa.