



SURGICAL INFORMATION PACKAGE



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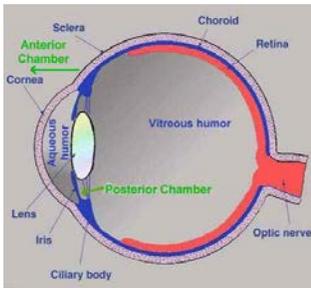
WELCOME!

Your vision is a precious commodity, so we appreciate the trust you've put in LASIK PROVISION and Dr. Taylor 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 (\$165 non refundable fee) 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. Dr. Taylor has performed over 50,000 LASIK (Laser In-Situ Keratomileusis) and PRK (Photorefractive Keratectomy) procedures, described below, at our clinic over the last 5 years. 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.

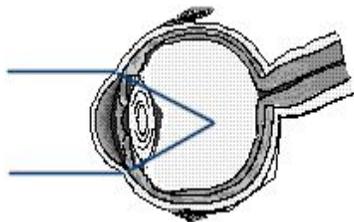
The individual components of the eye work in a manner similar to a camera. Each part plays a vital role in providing clear vision. Light rays enter the eye through the transparent cornea, which takes rays of light and bends them through the pupil, the dark, round opening in the center of the colored 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.

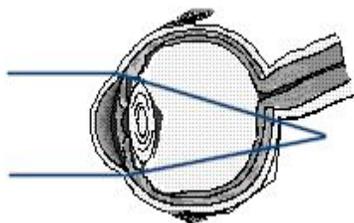
You may have one or more of the following types of refractive errors:

Nearsightedness (Myopia)



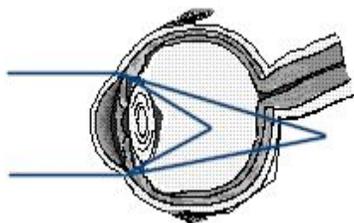
Myopia occurs when light entering the eye focuses in front of the retina instead of directly on it. Myopia is caused by a cornea that is steeper, or an eye that is longer, than a normal eye. Nearsighted people typically see well up close, but have difficulty seeing far away.

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.

What Are the Symptoms of Presbyopia?

- Blurred vision at a normal reading distance.
- The need to hold reading material at arm's length.
- Headaches from doing close work.

Presbyopia can be corrected by wearing reading glasses. Some people have avoided reading glasses for many years, through a technique called monovision contact lenses and now blended vision laser correction .

Monovision

Monovision is an option for patients with presbyopia where the two eyes are adjusted to have slightly different focusing points. 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 (6-8 weeks), 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.

Blended Vision

Blended Vision is a type of monovision that most presbyopic patients have found easier to adjust to. It is a LASIK procedure where the excimer laser makes one eye (non-dominant eye) a little nearsighted. Your dominant eye then sees clearly in the distance and the non-dominant eye sees near.

Laser Blended Vision is not just making the non-dominant eye near sighted as in monovision, the laser also creates a positive spherical aberration in the center of the eye. This correction makes the image disparity from the two eyes smaller and the brain blends the images together even better that you will not notice which eye you are looking through for distance or near.

Both eyes are usually treated to ensure the best possible balance of vision. The laser reshapes the surface of the cornea just as it is done in conventional laser eye surgery. During conventional laser eye surgery the laser reshapes the cornea so that the power is the same throughout the whole cornea. This is not the case for blended vision as the laser creates different power zones so that parts of the cornea are corrected for distance vision and the other parts for reading vision.

Now is an excellent time to consider blended vision since Lasik Provision has acquired the Zeiss MEL 80 Excimer Laser which is suited for blended vision treatments. Before proceeding with the procedure you will need to be tested to see whether you can see far and near by correcting the dominant eye for the distance and the non-dominant eye for reading. If you can tolerate this disparity in the correction then you will be considered for the procedure.

Laser Blended Vision can be performed on those who have had LASIK correction before and also on those using readers only to reduce the need for reading glasses.

SURGICAL PROCEDURES

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 different treatment options for PRK as well (see following page) in order to get the optimal visual outcomes.

During PRK corrective surgery the outer layer of the cornea, the epithelium, is removed centrally. The laser is then directly applied to the underlying cornea. A bandage lens is then placed on the cornea to assist in healing of the operative area and for patient comfort. Healing typically takes between 4 days and 1 week, and daily or every other day visits to the optometrist are recommended while the contact lens is in place. Following CL removal, patients are seen on a schedule similar to LASIK. Once the corneal epithelium has healed the patient has much less activity restrictions compared to a LASIK patient.

LASIK (Laser In-Situ Keratomileusis)

The first step with LASIK is to have a thin corneal flap made to reveal the tissue that will be reshaped to correct nearsightedness, farsightedness, or astigmatism. There are two main methods to create a corneal flap; a microkeratome with a metal blade, or a femtosecond laser (blade free) such as the VisuMax. 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 cannot be corrected by laser treatments.

When having LASIK, you have different treatment options to enhance your outcome. Your optometrist and surgeon at LASIK Niagara will recommend the procedure of choice for your eyes.

Healing is rapid with most cases requiring four follow-up visits (1 day, 1 week, 1 month, 3 months). A requirement of this procedure is that the corneal thickness is sufficient for the creation of the flap and laser ablation while maintaining a safe residual corneal bed of 250 microns.

Femtosecond Laser Technology (VISUMAX)

Carl Zeiss has over 160 years of experience in the development of optics and Zeiss high performance optics are key to providing an optimum corneal flap. In general, patients who qualify for LASIK are also candidates for the VisuMax laser corneal flap treatment, and thus will benefit from its accuracy and gentleness.

Gentle Treatment

Flap creation with the VisuMax is a completely bladeless procedure. The creation of the corneal flap with the VisuMax is very fast and takes approximately 20 to 30 seconds, while the complete LASIK procedure may take approximately 15 minutes.

A very accurately focused laser beam is guided through to the cornea in a computerized treatment that is unique to each patient. The laser beam moves across and through the cornea, creating a layer of very tiny bubbles under its path. These bubbles quickly disappear, and the tissue above the bubbles becomes the corneal flap that can be easily lifted by your surgeon.

Everyone has a curved cornea. Nature often provides us with the best answers, and the VisuMax features a unique, curved contact glass to maximize patient comfort. This technology allows for the patient to maintain visual sight during the entire procedure. This is possible since the curved contact interface attaches to the cornea during the treatment and the cornea is only slightly flattened, which prevents unnecessarily high intraocular pressure and stress to the eye. This provides maximum comfort and it allows you to see throughout the entire procedure, unlike with microkeratomes or other femtosecond lasers, where your vision is “blacked out” for awhile and patients have reported feeling uncomfortable pressure. Patients often describe the VisuMax procedure like the insertion of a soft contact lens.

Due to the Zeiss high performance optics, the laser beam is guided very precisely to the desired depth, resulting in most accurate flap thickness. In addition, the laser beam is directed in a very focused manner, which allows the doctor to apply only minimum laser energy to the eye during the treatment. As a result, the tissue outside the defined area of the cut remains untouched.

Since the VisuMax is able to create very thin corneal flaps, some patients who were previously not a candidate for LASIK due to thin corneas, are now benefiting from the procedure, thanks to the VisuMax. Your doctor will make the final determination.

Benefits of Blade-Free

The Visumax laser provides more stability and greater flap precision when compared to LASIK. LASIK's greatest complication is flap problems after surgery. Because blade free is so precise, this risk is significantly reduced.

The blade-free Lasik vision correction surgery can produce real benefits for some patients. They include:

- Decreased risk of flap complications.
- Decreased incidence of postoperative dry eye
- Unlike other alternatives to LASIK, it preserves many of the benefits of LASIK including a short and largely pain-free recovery.
- More accurate outcomes in terms of patients' postoperative vision.
- Benefits of vision correction surgery are available to those who might have previously been poor candidates.
- Less pressure on the eye during the surgery.
- Reduced incidence of patients needing a second operation to correct their vision.
- Flaps created with a laser are less likely to become dislodged later
-

Potential Complications

What is a person's risk of having complications when choosing blade free LASIK surgery?

Like all surgery, this procedure presents some risks, many of which are listed below. You should also understand that there may be other risks not known to the doctor which may become known later. Despite the best of care, complications and side effects may occur. Following risks that could be associated with the procedure:

1. The Femtosecond laser could malfunction, requiring the procedure to be stopped before completion. Depending on the type of malfunction, this may or may not be accompanied by visual loss.
2. Irregular healing of the flap could result in a distorted cornea. This would mean that glasses or contact lenses may not correct your vision to the level possible before undergoing surgery.
3. Mild or severe infection is possible. Mild infection can usually be treated with antibiotics, could lead to permanent scarring and loss of vision that may require corrective laser surgery.
4. Other rare complications threatening vision include, but are not limited to, corneal swelling, corneal thinning (ectasia), appearances of floaters and retinal detachment, hemorrhage, photophobia.

ZEISS MEL 80™ Excimer Laser

ZEISS camera lenses were recognized as the world's highest quality after their introduction in the 1800s. In the late 1980s, ZEISS optical lenses became the technology of choice for the developers of vision correction lasers.

Carl Zeiss Meditec has been a refractive surgery pioneer for more than 20 years.

Combining its finest optics with the most advanced excimer laser technology available, Carl Zeiss Meditec brings you laser vision correction with a fourth-generation laser platform, the MEL 80. "MEL" stands for "**Meditec Excimer Laser.**"

The MEL 80 is a fourth generation Carl Zeiss excimer laser platform, taking vision correction to a new level. By reshaping the human cornea to its most natural shape during treatment, your vision can now be similar to the quality of lenses on which Carl Zeiss has built its reputation. The goal is to deliver high resolution vision with a custom treatment unique to your prescription. Carl Zeiss engineers created this advanced vision correcting technique using the latest wavefront technology innovations. This scientific method takes into consideration not only the clarity of vision from the shape of your eye, but it also treats other irregularities within your eye that may prevent you from having a higher quality of vision. One of the fastest excimer lasers in the world, your treatment is completed within seconds.

What differentiates Carl Zeiss Meditec?

Carl Zeiss commitment to delivering superior optics with laser precision. The MEL 80 is yet another powerful example of this commitment, delivering high performance and exceptional visual results—all day and all night.

- 93% of patients were corrected at 6 months to 20/20 or better visual acuity
- 41% were corrected to 20/12.5 or better 6 months after treatment
- MEL 80's aberration-optimized algorithms minimize spherical aberration that causes night vision problems

Zeiss PrecisePulse™ Technology offers precision speed and safety

Precise Pulse Technology safely and accurately controls every single laser pulse from beginning to end. Using Zeiss PrecisePulse™ Technology, every beam of the laser is precisely placed on the cornea while an active eyetracker with an ultra-rapid infrared camera tracks the eye's position 250 times per second. The MEL 80 eyetracker doesn't use just one landmark on the eye, it uses two, which is an important feature for exact registration and laser alignment. If your eye ever moves out of the treatment range, the laser treatment pauses until the eye is realigned.

Patient Satisfaction, Comfort, and Confidence

The MEL 80 excimer laser offers high performance considers patient comfort. It safely and significantly reduces treatment time, providing benefits for both surgeon and patient:

- Reduced stromal bed exposure minimizes dehydration and accelerates regeneration
- A thermally-optimized laser firing pattern protects the stroma despite high ablation speed
- The ability to create a precise, aspheric corneal curvature
- Patients need to concentrate on the fixation light for only a few seconds

Better for the Eye

With the tiniest spot size and its Gaussian beam profile the MEL 80 produces matchless quality in corneal ablation - exact, even and protective of the surrounding tissue. Even in complex ablation procedures, the large overlap of the laser spot zones yields very smooth surfaces.

Two specially optimized ablation profiles help you produce excellent results:

- **ASA (Aberration Smart Ablation)** – tried and tested strongly aspherical profiles, optimized for "mesopic vision"
- **TSA (Tissue Saving Algorithm)** – the conservative tissue-saving alternative with lower asphericity for re-treatment and thin corneas

Safe Use

The MEL 80 helps you significantly reduce the duration of treatment. This has the following benefits:

- The stromal bed is only open for a short period; this prevents dehydration and speeds up the regeneration process.
- The thermally-optimized distribution of the laser firing pattern protects the stroma - despite the high ablation speed.
- Patients' stress is relieved; they only need to concentrate for a few seconds on the fixation light.
- The exceptionally fast ablation time reduces procedure time for greater patient comfort.
- Very small 0.7 mm spot permits the finest correction without losing the benefits of a small ablation.
- An active eyetracker with excellent feedback times and an IR camera catching both pupil and limbus provides exact positioning during the laser treatment.
- Two specially optimized ablation profiles to choose from

Clinical Study

The Carl Zeiss Meditec MEL 80 Excimer Laser System is indicated for use in primary Laser Assisted In Situ Keratomileusis (LASIK) for:

- *For the reduction or elimination of myopia of less than or equal to -7.0 D with or without refractive astigmatism of less than or equal to -3.0 D;
- *In subjects with documentation of stable manifest refraction over the prior year;
- *In subjects who are 21 years of age or older.

Summary Of Clinical Studies:

A total of 360 eyes were enrolled in this study. Effectiveness results are provided for 354 eyes with at least six months of follow-up data. Safety data are provided for all 360 eyes enrolled in the study.

A. Study Objective

The objectives of this study was to evaluate the safety and effectiveness of the Meditec MEL 80 Excimer Laser System for the reduction or elimination of myopia of less than or equal to -10.00 D, and astigmatism less than or equal to -3.50 D at the spectacle plane, when used as part of the LASIK surgical procedure.

Response:	At 3 Months:	At 6 Months:
No Improvement	0.6%	0.6%
Slight Improvement	1.1%	0%
Moderate Improvement	1.1%	1.7%
Marked Improvement	14.4%	16.3%
Extreme Improvement	82.8%	81.5%
No	1.1%	2.2%
Yes	94.4%	94.4%
Unsure	4.4%	3.4%
Very Satisfied	90.6%	88.8%
Moderately Satisfied	7.8%	8.4%
Neutral	0.6%	1.7%
Dissatisfied	1.1%	0.6%
Very Dissatisfied	0.0%	0.6%

At three months, the overall quality of vision was rated highly, with 99.4% of patients indicating that there was an improvement, while only 0.6% indicated that there was no improvement; 94.4% would elect to have the surgery again; 98.3% reported being satisfied, while 0.6% were neutral and 1.1% were dissatisfied.

Conclusions Drawn From The Clinical Study:

The data in this application provides reasonable assurance that the device is safe and effective when used in accordance with the directions for use. The FDA issued its approval of the **Meditec MEL 80 Excimer Laser System** on August 15, 2006

ALLEGRETTO WAVE 400Hz LASER

When someone decides that they want laser vision correction, they seldom consider the type of laser that will be used to correct their vision. While it is true that there are many different lasers used by ophthalmologists to correct myopia or hyperopia, you may want to know a little about the one that will be used on your eyes.

The Wavelight Allegretto Wave™ Eximer Laser is the **FASTEST VISION CORRECTION LASER AVAILABLE** in the United States. At 400 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.

It's the first excimer laser platform to win FDA approval in five years. The Allegretto Wavelight™, was designed right from the start for custom laser vision correction. People undergoing laser vision correction will benefit from the laser's ability to reshape the eye while compensating for the cornea's naturally aspheric shape. Unlike older excimer lasers, which remove eye tissue in a central, flat manner that creates an edge, Allegretto Wave's pefectpulse™ technology uniformly applies tiny pinpoints of laser pulses adjusted to each eye's specific curvature. Eye tissue is reshaped in a smooth, consistent manner that provides best vision result.

Wavelight also uses a technology the company pioneered called Wavefront. The Wavefront measurements provide detailed information that can help eye surgeons address even obscure defects in the eye's optical system known as higher order aberrations.

Allegretto Wave™ can treat a larger area within the eye's targeted treatment zone. This means a reduced chance of side effects such as seeing halos around headlights and bright lights at night. These side effects can occur when, at night or in darkened rooms, the eye's pupil widens and expands beyond the area of the cornea that received laser correction.

In clinical trial leading up to FDA approval of the Allegretto Wave

- 60% of nearsighted patients achieved 20/16 vision, which is significantly better than 20/20
- AT 12 months post-op, 87% of patients were 20/20 better.
- More than 98% of all patients achieved 20/40 or better vision outcomes, which enable them to a pass a driver's test.
- And patients' reports of glare and night-driving glare improved after the treatment.

FDA-Approved Allegretto Wave Treatment Ranges
Myopia (nearsightedness): Up to -12 diopters
Hyperopia (farsightedness): Up to +6 diopters
Hyperopia with astigmatism: Up to +6 diopters with up to +5 diopters astigmatism

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. This refractive laser platform aims to protect quality of vision while providing safety for the patient and physician. The Allegretto Wave™ Excimer Laser became the first system to receive concurrent approval for myopia and hyperopia along with the widest range of approvals ever granted to a new laser platform.

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 400 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

The effect of higher-order aberrations increases with pupil size. Hence the effective optical zone size should correspond with the pupil. Large transitions zones include higher-order aberrations, thereby fostering vision problems such as halos and glare. Controlling the peripheral ablation allows the laser to create **large, true optical zones** with a minimized transition zone. By treating larger optical zones with a diameter of up to 8 mm, **postoperative glare and halos may be minimized.**

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.

WAVELIGHT TECHNOLOGY

Wavefront-Optimized

Wavefront-optimized LASIK is the type of laser treatment available on the Wavelight laser. This treatment is also based on the patient's glasses prescription, but also takes into account corneal curvature and thickness, and applies laser energy in a unique fashion in the periphery of the cornea. This laser has been found to reduce the aforementioned complications such as glare, halos, and other nighttime visual aberrations that can occasionally occur with conventional treatments.

Wavefront-Guided

Wavefront-guided LASIK, also referred to as custom LASIK or wavefront LASIK, is similar to conventional LASIK, except that in addition to treating a patient's basic refractive error, specific alterations in a patient's eye (high order aberrations) can also be treated. In wavefront-guided LASIK, special mapping is performed prior to surgery to identify any small irregularities in the patient's optical system. When these irregularities are severe, they can affect vision quality, contrast sensitivity, and night vision. When significant irregularities in a patient's wavefront mapping are found, wavefront-guided LASIK can be used, and the treatment will be based on the wavefront-map generated.

Topography Guided

In topography guided, the Allegretto delivers the desired treatment according to customized settings from the corneal topography performed at the time of your assessment. It is particularly effective for correction of problems directly in the center of vision and addresses defocus (refractive) errors across a wide range but cannot treat higher order aberrations. The aim is to reshape the cornea into an ideal curve, also taking into account the current spherocylindrical correction. The cornea is the primary refractive structure of the eye, and if corneal aberrations are corrected, the whole optical system should dramatically improve. Topography-guided treatment does have advantages over wavefront-guided treatments in that it can be used in cases with (1) corneal scarring or other media opacities and (2) highly irregular corneas where wavefront measurements are not possible

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 NIAGARA 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. The pre-operative eye examination is \$165, and non-refundable. 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.

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.

1) 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.

2) 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.

3) 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 Niagara. Our staff will assist you in this process with referrals if necessary. *

* LASIK Niagara 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 Niagara, 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 Niagara Clinic.
- 1 week
- 1 month
- 3 months

PRK

- 24 hour visit is mandatory at the LASIK Niagara 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 Niagara 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, sauna, hot-tubs
- Sun-tanning
- Sailing, Snorkeling/ Scuba diving * (for a maximum of 30 ft. depth)
- Motorcycling, dirt biking, mountain biking
- Racquet sports: tennis, squash, racquetball, badminton (always wear eye protection)
- Baseball, basketball, football, soccer, hockey, skiing

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

- Water skiing, Surfing, Wind surfing
- Kayaking

6 MONTHS

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

POTENTIAL COMPLICATIONS

LASIK and PRK are designed to provide the patient with excellent 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 its 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 "punctual 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 Niagara.

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 procedure called ZYOPTIX™ which has been shown to significantly minimize these effects.

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 Niagara. 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 Niagara or at your eye care professional. If a patient does not choose to procure any of the Clear Vision Plan options, then the 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 Niagara 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 Niagara 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 Niagara are not covered. Any necessary re-treatment procedures must be performed within three years of the initial surgery.

Lasik Niagara Clear Vision Plan: Five Year

The five year Clear Vision Plan covers the cost of re-treatment and post operative exams scheduled at Lasik Niagara 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 Niagara are not covered. Any necessary re-treatment procedures must be performed within five years of the initial surgery. To upgrade to a 5 Year Vision Care Plan the cost is \$125/ Eye CDN. This plan may be purchased at any time up to and including the day of your surgery.

Dr. Andrew Taylor, M.D., F.R.C.S.C., Dip. A.B.O. BIOGRAPHY

Dr. Taylor is a cum laude graduate of the University of Toronto. Dr. Taylor received his medical degree from the University of Toronto in 1991. He then completed an internship in comprehensive internal medicine at The Toronto Hospital, University of Toronto in 1992. Dr. Taylor then went on to complete his residency training in ophthalmology at the University of Toronto. Dr. Taylor received his Fellowship from the Royal College of Surgeons of Canada in 1995 and became a Diplomat of the American Board of Ophthalmology in 1997. Dr. Taylor was the recipient of numerous academic awards including the Dr. Louis Kagal Memorial Award for excellence in ophthalmology from the University of Toronto, Faculty of Medicine.

Dr. Taylor has been in private practice since 1995, specializing in anterior segment and refractive surgery. He is associated with Peninsula Eye Associates in Niagara Falls and is the former Chief of Ophthalmology at the Greater Niagara General Hospital.

Dr. Taylor has been performing laser refractive surgery since 1995, with extensive experience in LASIK, PRK and intraocular surgery. He has also participated as an investigator on previous FDA trials of new technologies in refractive surgery. Dr. Taylor has performed over 50,000 refractive procedures, including over 10,000 custom wavefront ablations since 2001. Dr. Taylor is recognized as one of the most experienced refractive surgeons in North America, and he lectures extensively in the field of refractive surgery to other health care professionals. Dr. Taylor founded LASIK Niagara and is acting Medical Director of the clinic.

Dr. Taylor is a member of the Ontario Medical Association, the Canadian Medical Association, the College of Physicians and Surgeons of Ontario, the Royal College of Physicians of Canada, the American Board of Ophthalmology, the American Academy of Ophthalmology, the American Society of Cataract and Refractive Surgeons and the International Society of Refractive Surgery.

DIRECTIONS

From QEW Toronto:

Take QEW Niagara to HWY 420 and exit at Dorchester Road. At the next stop sign turn right. At the lights turn right onto Dorchester Road. Turn right onto Morrison Street.

From Rainbow Bridge :

Take QEW Toronto/Highway 420 after exiting customs. Take the Dorchester Road exit. At the stop lights turn left onto Dorchester Road. Turn right onto Morrison Street.

From Peace Bridge:

Take QEW Niagara. Take the Dorchester Road exit. At the next stop sign turn right. Turn right onto Dorchester Road. Turn right onto Morrison Street.

For a detailed map, please visit www.mapquest.com

PARKING

Parking is available at the clinic at no charge.

HOTELS

Best Western Cairn Croft**

6400 Lundy's Lane
Tel: 1-800-263-2551

Marriott

6740 Oakes Drive
Tel: 1-888-501-8916

**Highly recommended by LASIK PROVISION patients.

US BORDER CROSSING

If you are a citizen of the United States it is necessary to present a passport to enter Canada by land.

For further information please contact the Niagara Falls Chamber of Commerce at
(905) 374-3666 or visit www.niagarachamber.com.