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## WELCOME TO LASIK MD

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Thank you for choosing LASIK MD for your laser vision correction. We understand that this is an extremely important decision that will alter your life immeasurably. Like many patients, you may be feeling excited about the prospect of being freed from the dependency on glasses or contacts, but you may also have questions about the procedure that you will be undergoing. In this package, we attempt to answer some of those questions, providing you with information about the benefits, potential complications, and steps of the procedure.

### ABOUT LASIK MD

LASIK MD is a national provider of laser vision correction. Our mission is to deliver high quality care, using the highest surgical standards and the latest technology, at an affordable price.

### EYE CARE PROFESSIONALS

At LASIK MD, our eye care professionals are experienced in the pre-operative, operative and post-operative management of LASIK and PRK.

Throughout your LASIK MD experience, you will interact with our highly trained staff, including our experienced optometrists and surgeons.

#### Optometrist

Your optometrist has attended four years of optometry school, has attained a Doctor of Optometry degree, is trained in diagnosing and treating refractive errors by non-surgical means, and has experience in providing post-operative care for LASIK and for PRK. Your optometrist, who will collaborate closely with your surgeon to ensure the best possible surgical result, may be able to assume responsibility for your care as early as the day following surgery.

#### Surgeon

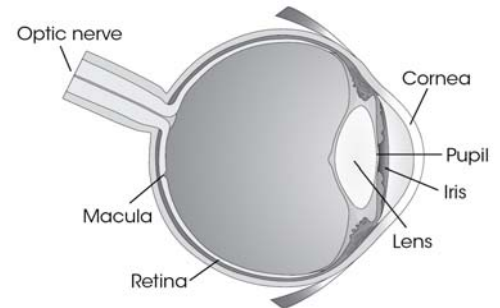
Your surgeon has a Doctor of Medicine (MD) degree and is experienced in the medical and surgical management of refractive errors and eye diseases. In addition to four years of university, your surgeon has spent four years in medical school, followed by a five-year residency in ophthalmology.

LASIK MD surgeons have performed over **half a million** laser vision correction procedures, offering both LASIK (Laser Assisted In-Situ Keratomileusis) and PRK (Photorefractive Keratectomy). LASIK and PRK are referred to, collectively, as the "procedure" in the following materials, and are briefly described in the following sections.

Please read all of the material in this package carefully. Remember that we provide this package in addition to, but not as a replacement for direct discussions with your eye care professional. You may also find it helpful to consult our website, at [www.lasikmd.com](http://www.lasikmd.com) or to contact one of our consultants at 1-866-366-2020 if you have any other questions. Also, please keep in mind that our patient care representatives are not trained to give a medical diagnosis or to determine the specific price of a surgery. Pricing will vary depending on your prescription and the condition of your eyes. **Specific pricing will be given to you following a series of tests at your pre-operative consultation.**

## HOW THE EYE WORKS

The eye is like a camera. The cornea is a clear, dome-shaped window that forms the front wall of the eye. The retina is the tissue in the back of the eye that acts like the film in a camera. The cornea at the front of the eye acts as a lens that focuses light onto the retina, producing an image on the retina that gets transmitted to the brain and interpreted as vision. The curve of the cornea determines the power of the corneal lens and whether the incoming light rays from distant objects focus directly onto the retina.

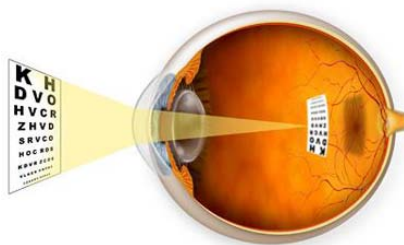


## WHAT IS 20/20 VISION?

20/20 is a measurement of how clear your distance vision is. If your standard vision test reports 20/20, it means that you are able to see clearly at 20 feet what a person with normal vision can see clearly at 20 feet. On the other hand, if you have 20/40 vision, it means that you need to stand as close as 20 feet to see what a person with normal vision can see clearly at 40 feet. If you have 20/15 vision, it means you see clearly from 20 feet what a person with normal vision can see clearly from 15 feet, in other words, you see a little better than the typical “normal” person.

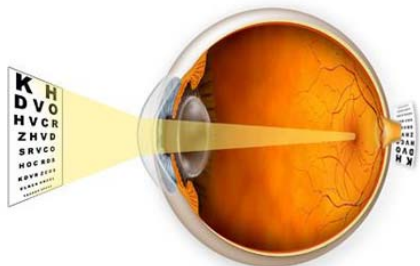
## REFRACTIVE ERRORS

Emmetropia is the condition of the normal eye when parallel rays are focused exactly on the retina and vision is perfect. When light does not focus directly on the retina, the eye has a refractive error. This means that with the appropriate “refractive correction” lens (i.e., glasses or contact lenses), incoming light rays become focused onto the retina producing clear vision.



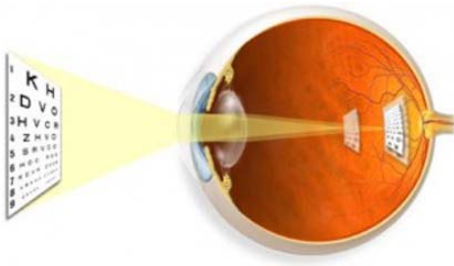
### Myopia (Nearsightedness)

In myopia, the eye is longer than normal, preventing light rays from focusing directly on the retina. Light rays come together at a point in front of the retina, and are out of focus on the retina. Distant objects are blurred, while nearby objects can be clear.



### Hyperopia (Farsightedness)

In hyperopia, the eye is shorter than normal. Light rays come together at a point behind the retina, and are therefore out of focus on the retina. Nearby objects can appear blurry, while distant objects are clearer. Very farsighted patients will report that even distant objects appear blurry.



### **Astigmatism**

In the normal eye, the cornea is curved the same in the horizontal and vertical directions, like a baseball. When light rays hit the cornea, they focus at a single point. In astigmatism, the curve of the cornea is not the same in the horizontal and vertical directions. The cornea looks like a football, with a steep curve on one side and a flat surface on the other. As a result, light rays entering the cornea do not focus at a single point, causing distorted vision. Most people with myopia or hyperopia have some degree of astigmatism.

In all of these conditions, some type of corrective lens, such as glasses or contact lenses, is required to focus the light properly on the retina. LASIK and PRK are used to change the shape and curvature of the cornea in order to correct or reduce these types of refractive errors. Changing the shape of the cornea changes the direction of light rays entering the eye so that they can focus correctly on the retina. Light rays focused on the retina results in clear vision.

## **OTHER COMMON REFRACTIVE ERRORS**

### **Presbyopia**

As we age, the natural crystalline lens of the eye may lose some of its elasticity and thereby its ability to focus on close objects. This condition, known as presbyopia, usually begins around the age of 40 and can often be comfortably corrected through the use of reading glasses. To learn more about treatments for presbyopia, ask one of our eye care professionals.

## HOW WILL SURGERY IMPROVE MY LIFE?

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### REDUCED DEPENDENCE ON GLASSES AND CONTACTS

There are numerous potential benefits for patients who undergo either LASIK or PRK. Almost all of these advantages are associated with reduced dependence on eyeglasses and/or contact lenses. While the use of eyeglasses and/or contact lenses can be an effective method of correcting refractive error, it is also a method that can place restrictions on normal, everyday activities.

For individuals who wear contact lenses, laser eye surgery can also eliminate the time and effort involved in cleaning, removing and replacing lenses. In addition, over time, the costs associated with maintaining and replacing corrective lenses can be prohibitive.

Many people who wear eyeglasses also cite cosmetic or aesthetic reasons for wanting to undergo the procedure.



### ENJOY AN ACTIVE LIFESTYLE

Reduced dependence on corrective lenses can result in considerably more freedom for patients with active lifestyles. Many recreational activities, such as water sports or contact sports, can be much more enjoyable when the necessity of wearing glasses or contacts is removed. In some cases, patients choose laser eye surgery for professional purposes, rather than recreational ones. In certain fields of employment, corrective lenses are not permitted.

The reasons for contemplating laser vision correction vary for every individual. For those who have required corrective lenses throughout most of their lives, the simple prospect of being able to drive without wearing glasses or contacts, or of being able to wake up and see without putting on glasses or contacts, may be sufficient reason in itself.



The potential benefits, like the potential complications, can vary, and should be considered carefully.

## OUR PROCEDURES

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### LASIK

Laser vision correction is one of the most popular elective procedures in North America and the safest in the world. LASIK surgery began in 1990 and since that time, over 35million people have undergone LASIK laser eye surgery! People are choosing LASIK laser vision correction to reduce their dependency on glasses and contacts and regain an active lifestyle.

This safe and painless procedure generally takes less than ten minutes of operating room time to treat both eyes. In fact, the laser is used for an average of less than 20 seconds per eye. LASIK laser eye surgery can be used to correct nearsightedness (myopia), farsightedness (hyperopia), and astigmatism.

LASIK MD offers the most advanced technology in laser vision correction. We use sophisticated diagnostic imaging to accurately evaluate your candidacy. During the procedure, our advanced laser technology allows for increased accuracy and precision. LASIK MD clinics are outfitted with the newest generation laser platforms including Bausch & Lomb, Visx CustomVue and Wavelight Allegretto. Our commitment is to offer proven technology to achieve the best possible results. At LASIK MD, our experienced team of professionals will recommend treatment options best suited to your needs: LASIK and PRK, including standard and advanced custom wavefront technologies.

### STANDARD LASIK

LASIK is a form of eye surgery in which a surgeon uses a precise flap-making instrument, to create a thin flap of corneal tissue. This flap is raised and laid back while still attached to the cornea. The surgeon then uses a state-of-the-art excimer laser to remove a pre-determined amount of corneal tissue from the exposed bed of the cornea. The amount of tissue to be removed is calculated based on the pre-operatively determined power of your eye; these measurements are usually in agreement with recent prescriptions for your glasses and/or contact lenses.

The flap is replaced, and within minutes natural forces hold the flap down on the cornea. Usually, within a few hours, the surface layer of the cornea (epithelium) begins to grow over the edge of the flap to seal it into position. Within days, collagen bonds form within the cornea around the edge of the flap, sealing it.

LASIK can be used to correct nearsightedness (myopia), farsightedness (hyperopia), and astigmatism.

Please note that some LASIK MD clinics across Canada are equipped with a Femtosecond Laser. This laser is used to create the corneal flap, thereby making Standard LASIK an All-Laser LASIK procedure. As with all technologies that LASIK MD offers, please consult your local LASIK MD clinic for guidance. A comprehensive consultation will determine what treatment is the best for you.

## **ADVANCED CUSTOM WAVEFRONT LASIK**

Advanced Custom Wavefront LASIK allows for further customization of the standard LASIK procedure, often resulting in clearer and sharper vision. If you have a high prescription, thin corneas and larger than average pupils, then Advanced Custom Wavefront LASIK may be best suited for your eyes and needs. Rest assured that whatever treatment option you choose, you have the experience and expertise of your surgeon to ensure the best possible vision results.

Please note that some LASIK MD clinics across Canada are equipped with a Femtosecond Laser. This laser is used to create the corneal flap, thereby making Advanced Custom Wavefront LASIK an All-Laser LASIK procedure. As with all technologies that LASIK MD uses, please consult your local LASIK MD clinic for guidance. A comprehensive consultation will determine what treatment is the best for you.

### **THE ADVANCED CUSTOM WAVEFRONT LASIK ADVANTAGES:**

#### **More Patients Are Candidates**

Advanced Custom Wavefront LASIK allows for the correction of more patients, including those with higher prescriptions, and even those who may have been deemed non-candidates in the past.

#### **Better Quality of Vision**

This advanced technology can, in many cases, improve the quality of both day and night vision compared to standard treatments. The laser is capable of treating people with larger pupils and is better for night time vision quality. It also minimizes the risk of night time glare and haloes. Advanced Custom Wavefront LASIK results in a corneal shape that is closer to the normal curvature of the natural eye, providing better quality for both day and night vision.

#### **Increased Accuracy and Safety for Better Results**

Advanced Custom Wavefront LASIK removes 20%-30% less corneal tissue, which is healthier and safer for the eye. Advanced Custom Wavefront LASIK is also particularly beneficial for patients with thinner than average corneas, larger pupils and higher prescriptions.

## **STANDARD PRK**

PRK, first performed in 1987, is a form of eye surgery in which a surgeon removes the surface layer of the cornea (called the epithelium) and then reshapes the corneal bed with the laser in the same way as LASIK. This technique is usually used for people whose cornea may be too thin to safely allow for the creation of the corneal flap required for LASIK. PRK may also be recommended for patients who tend to rub their eyes. Frequent eye rubbing can cause the corneas to become softer over time. PRK can be a safer option in such circumstances. On the day of your preoperative evaluation your Eye Care Professional will determine if you have soft corneas and recommend the treatment that is safest for you.

The procedure is used to correct nearsightedness (myopia), farsightedness (hyperopia) and astigmatism.

## **ADVANCED CUSTOM WAVEFRONT PRK**

Advanced Custom Wavefront PRK allows for further customization of the standard PRK procedure, often resulting in even clearer and sharper vision. If you have a higher prescription, thin corneas and larger-than-average pupils, then the Advanced Custom Wavefront PRK is probably the procedure that is best suited for your eyes and needs. Rest assured that whatever you choose, you can rely on the experience and expertise of your surgeon to ensure the best possible vision results.

### **THE ADVANCED CUSTOM WAVEFRONT PRK ADVANTAGES:**

#### **More Patients Are Candidates**

Advanced Custom Wavefront PRK allows for the correction of more patients, including those with higher prescriptions, and even those who may have been deemed non-candidates in the past.

#### **Better Quality of Vision**

This advanced technology can, in many cases, improve the quality of both day and night vision compared to standard treatments. The laser is capable of treating people with larger pupils and is better for night time vision quality. It also minimizes the risk of night time glare and haloes. Advanced Custom Wavefront PRK results in a corneal shape that is closer to the normal curvature of the natural eye, providing better quality for both day and night vision.

#### **Increased Accuracy and Safety for Better Results**

Advanced Custom Wavefront PRK removes 20%-30% less corneal tissue, which is healthier and safer for the eye. Advanced Custom Wavefront PRK is also particularly beneficial for patients with thinner than average corneas, larger pupils and higher prescriptions.

## WHO IS ELIGIBLE FOR THE PROCEDURE?

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Over 99% of LASIK patients are between 18 and 70 years of age. Patients who are 17 years old may be candidates for the procedure, but require parental consent. In some cases, patients over 70 years of age may also be candidates for laser vision correction, but this would usually only follow cataract surgery. Other factors such as the general health of your eyes will be examined at the pre-operative assessment.



Certain conditions may make you a poor candidate for the procedure or cause additional risks or complications. At LASIK MD, a thorough and comprehensive eye exam is performed at your pre-op consultation to ensure that you are a good candidate. If you have or may have any of the conditions listed below, we suggest that you discuss them thoroughly with your eye care professional, as they could interfere with the healing process and require additional care. Those conditions include, but are not limited to:

- Eye inflammation or infection
- Severely dry eyes
- Certain rheumatological conditions (e.g. lupus, rheumatoid arthritis)
- Excessive corneal disease or scarring
- Degenerative disease of the cornea
- Diabetes with advanced retinal disease
- Inadequate corneal tissue

Please note that pregnant women are NOT eligible for surgery and that the medication used to dilate the pupils is not recommended for administration to pregnant women. If you are pregnant we ask that you notify us upon scheduling your pre-operative consultation. Women who are breastfeeding ARE eligible for LASIK.

## LIMITS TO CORRECTION

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The procedure does not correct the vision defects listed below, which do not arise from refractive errors. Patients with such conditions may be subject to additional risks and side effects and should discuss their condition with us before deciding whether to have the procedure.

### **Cataracts**

A cataract is a condition that, if not treated, can cause reduced vision. It is correctable by cataract surgery. Neither LASIK nor PRK will prevent cataracts, or reverse the effect of a cataract that is beginning to appear. Please refer to [www.cataractmd.ca](http://www.cataractmd.ca) for more information on this condition.

### **Amblyopia**

Amblyopia, or “lazy” eye, is a medical condition that develops in early childhood, where a person with reduced vision in one eye relies on the other eye to focus. LASIK or PRK will not reduce or eliminate amblyopia. The vision in the amblyopic eye will not become better than what is achieved with glasses. If the patient experiences side effects or complications from the procedure in the “better” eye he or she could experience a loss of vision because the good eye would no longer be able to compensate for the “lazy” eye.

### **Strabismus**

Strabismus is an eye disorder caused by a weakness in the eye muscles, in which the eyes may not be aligned properly. LASIK or PRK will not correct, reduce, eliminate or prevent strabismus. Patients with certain types of strabismus are not eligible for laser vision correction.

### **Presbyopia**

As we age, the crystalline lens of the eye loses its ability to change shape or focus on nearby objects (process called accommodation) This condition, known as presbyopia, usually begins around the age of 40, and can be corrected through the use of reading glasses. When farsighted people develop presbyopia, LASIK or PRK will improve their near vision, but reading glasses will still be required. LASIK or PRK will not prevent the need for reading glasses in patients over forty years of age.



## POTENTIAL COMPLICATIONS

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Like any surgical procedure, LASIK and PRK involve the risk of less than perfect results, complications, or even serious injury from unforeseen causes. Although the vast majority of our patients experience a significant improvement in their vision, we cannot promise or guarantee that the procedure will be 100% effective or make your vision better than it was before the procedure.

There is a slight possibility that the procedure or a complication arising from the procedure could cause your vision to be blurred, doubled, distorted, to have halos or other disturbances, including permanent loss of vision, and that these would NOT be correctable with glasses or contact lenses. In the event that a complication occurs, your surgeon will discuss and offer you advice on further treatment, which may involve medication or more surgery. In some rare instances, additional surgery may be needed in the form of a corneal transplant.

In addition, although excimer laser eye surgery has now been performed regularly since 1990, very long-term effects of the procedure (greater than 20 years) are unknown.

Although it is not possible to list every potential risk or complication that may result from the procedure, the most important ones are described below. Please note that serious complications are very rare and that the vast majority of our patients are highly satisfied with the results of their procedure.

### INTRA-OPERATIVE COMPLICATIONS

#### Short Flap

A short (or incomplete) flap occurs when the precision flap-making instrument cannot complete its movement. As a result, the flap that is made is too small, leaving insufficient space for the laser treatment to be performed. The flap is simply repositioned and the laser is not performed. In the unlikely event that a short flap occurs, the recommendation is to wait anywhere from three (3) to six (6) months before making a new flap. Alternatively, PRK can be safely performed one (1) month after the short flap occurred. Despite a slightly increased risk of a flap problem in comparison to an eye that has never had a short flap, the follow-up procedure remains very safe. At LASIK MD, the occurrence of short flaps is approximately 1 in 2,000 procedures.

#### Thin Flap

A thin flap or "buttonhole" occurs when the precision flap-making instrument creates a thinner than normal flap. As a result, the flap that is made is too thin to safely perform the laser treatment. In the unlikely event that a thin flap occurs, the recommendation is to wait between three (3) and six (6) months before making a new flap. Alternatively, PRK can be safely performed one (1) month after the thin flap occurred. Despite a slightly increased risk of a flap problem in comparison to an eye that has never had a thin flap, the follow-up procedure remains very safe. At LASIK MD, the occurrence of thin flaps is approximately 1 in 2,000 procedures.

#### Free Flap

A free flap (or cap) occurs when the flap becomes detached from the cornea. This complication is extremely rare with modern technology. In order to ensure perfect alignment once the laser treatment is complete, the surgeon marks the cornea before creating the flap. The visual outcomes for LASIK with a free flap are therefore typically the same as LASIK with a normal flap. Depending on the situation, the surgeon may choose to continue the laser treatment before realigning the flap. At LASIK MD, the occurrence of a free flap is approximately 1 in 50,000 procedures.

**Equipment Malfunction**

The precision flap-making instrument and excimer laser are maintained according to the specifications of the manufacturer. Both pieces of equipment have emergency battery power supplies to complete the procedure if electricity is lost at any time. Despite this regular maintenance, the precision flap-making instrument or the excimer laser could malfunction, requiring the procedure to be stopped before completion. In some instances, this malfunction may result in a rescheduling of the procedure, possible damage to the cornea and/or a loss of vision. This occurrence is very rare. At LASIK MD, no patient has suffered a loss of vision related to equipment malfunction.

**POST-OPERATIVE COMPLICATIONS****Flap Wrinkles**

It is possible that a flap may dislodge or shift slightly in the first few hours after the operation. If the flap moves, it can occasionally leave small wrinkles on the surface. These wrinkles are easily removed by the surgeon when they are found. About 1% of patients may need to have wrinkles removed the day after surgery, without any visual significance. Even if left long-term, wrinkles rarely become permanent and vision-affecting.

**Debris under the Flap**

A small amount of debris or particles may be found under the flap after the surgeon has completed the LASIK procedure. Debris may result from the instruments used or consist of tear-film oil or floating material that is usually present in everyone's eyes. The surgeon may decide in the immediate postoperative period to irrigate beneath the flap to remove this debris, which is generally of no visual significance.

**Flap Inflammation**

Approximately 5-10% of patients experience a very mild to mild, temporary inflammatory reaction beneath the flap. This condition is called *Diffuse Lamellar Keratitis* (also known as "DLK"). Patients with this type of inflammation may not show any symptoms at all or may experience blurred vision. This condition can generally be treated successfully with anti-inflammatory medication. In certain instances, irrigation under the flap is necessary, if the inflammation is severe. Very rarely, if the condition is not treated effectively in a timely fashion, corneal scarring can result in some loss of vision. At LASIK MD, the incidence of scarring due to DLK is approximately 1 in 100,000.

**Infection**

As with any surgical procedure, infection of the cornea is possible. Infections after LASIK procedures are typically treated with antibiotics and usually do not lead to permanent loss of vision. Severe infection, even if successfully treated with antibiotics, could lead to permanent scarring and loss of vision that may require corrective laser eye surgery or, if the infection is very severe, a corneal transplantation. The chance of this occurrence is extremely rare. The incidence of infection at LASIK MD is 1 in 50,000. This incident rate is significantly more favourable than the known incidence of infection of 1 in 2000 per year with contact lenses (1% rate over a 20-year period of contact lens wear).

**Halos, Starbursts**

After the procedure, some patients may experience an optical effect called a "halo" or a "starburst" around lights at night or in dim light. These effects are for the most part temporary, typically lasting between two (2) weeks to three (3) months after surgery. These symptoms occur due to residual water in the eyes that is eventually absorbed. Glare and halos may be permanent in 1-2% of patients and these complications are more likely to occur in patients with high levels of nearsightedness, farsightedness or with larger-than-average pupil size. This complication is rare with modern technology. New lasers allow for treatment sizes larger than the patient's pupils.

**Irregular Corneal Shape (Ectasia)**

Certain corneas are genetically pre-disposed to be weaker than other corneas of the same thickness. A minimum amount of corneal tissue (after the laser treatment removes tissue) is always left under the flap for the corneal shape to remain stable. In rare instances where the cornea is pre-disposed to be weaker or "softer" than the average cornea, the tissue that is left under the flap is not strong enough to maintain stability. This can lead to ectasia, a condition characterized by progressive corneal thinning, and a progressive change in shape, resulting in astigmatism and blurred vision. The chance of ectasia in a normal eye undergoing laser eye surgery is 1 in 5,000. This rate compares favourably with a known incidence rate in the population of soft corneas that bend on their own (without surgery) of 1 in 1,000. Historically, this change in corneal shape required patients to wear a hard contact lens or in some cases, undergo a corneal transplant. Today, ectasia is treatable with corneal collagen cross-linking (CXL) and possibly a further laser treatment. Due to the development of CXL, the possibility of requiring a corneal transplant due to ectasia after laser vision correction is very rare.

**Light Sensitivity and Fluctuating Vision**

Patients may be sensitive to light and glare or find that their visual acuity fluctuates after the procedure. These conditions are typically temporary and gradually fade with time as the eye heals and stabilizes. These conditions rarely remain permanent. For PRK patients, light sensitivity is common for a few days—and sometimes weeks—after surgery and will rarely persist for longer than a month. For All-Laser LASIK patients, there is a slightly higher rate of light sensitivity.

**Optical Imbalance**

This problem can apply if the surgeon performs the procedure for each eye on different days. The eyes may not be able to balance and focus properly until the procedure is performed on the second eye because there will be a prescription difference between the two eyes.

**Under-correction, Over-correction and Regression**

In some cases, the exact removal of tissue performed by the laser is overridden by the healing response of the eye, which varies from one individual to another. While laser treatment is designed to completely neutralize refractive errors of the eye (unless otherwise discussed with the surgeon), a variation in the healing process can affect the treatment accuracy and result in an over- or under-correction. A more pronounced healing pattern can also cause regression, which is a partial decrease of the effect of the treatment, as the cornea replaces some of the tissue removed by the laser. Typically, a maximum of one (1) to two (2) diopters can regress, meaning that the patient has a small remaining prescription which still blurs the vision.

The residual nearsightedness, farsightedness and/or astigmatism can be corrected with glasses, contact lenses or additional laser surgery in the majority of patients. A minority of patients may not be able to safely undergo laser re-treatment, most likely due to insufficient corneal tissue (thin cornea before surgery), or irregular corneal shape.

In cases with very small amounts of regression, the risks of re-treatment may outweigh the potential visual benefit to the patient. If re-treatment is not recommended by the surgeon, some people may find that a very mild eyeglass prescription is necessary for driving, especially at night.

**Fragility on Impact**

The corneal flap is considered fragile to direct trauma for at least the first three (3) months after the procedure. When participating in sports or any other activities involving possible contact with the eye during this period, you should wear protective eyewear. It is always advisable to protect your eyes from direct trauma after the procedure.

### **Strabismus**

Patients with pre-existing eye balance problems (the two eyes are not aligned) may have a deterioration of their symptoms, sometimes even resulting in double vision. This complication is rare and occurs only in patients with pre-existing balance problems.

### **Surface Skin Erosion**

When making the corneal flap, an abrasion might occur on the outer surface of the cornea. This abrasion means that the surface skin has been scratched off. Patients with corneal abrasions may experience more discomfort, and a longer recovery period. They may also be at higher risk for further complications, including inflammation, recurrent erosions or flap wrinkles. Depending on the size and severity of the abrasion, the surgeon might delay the surgery in the other eye. A contact lens may be placed in the eye to help with the healing. Most abrasions heal within one (1) to three (3) days. With the newer Zero Compression Keratome (ZCK), this complication occurs in less than 1 in 1,000 cases.

### **Surface Skin Cells under the Flap**

Corneal surface skin cells can sometimes grow under the edge of the flap, a condition known as *epithelial ingrowth*. The vast majority of these cells reabsorb and disappear on their own. However, if the cells continue to grow, they may affect vision. The surgeon may decide to lift the flap and remove these unwanted cells. This complication is very rare after a first procedure. It is more commonly seen after an enhancement (3%), when the flap is lifted a second time.

### **Dry Eyes**

Dry eyes are a common, yet typically temporary complication arising from LASIK or PRK. This condition can usually be treated with lubricating eye drops and occasionally with temporary inserts or "Comfort Plugs" that prevent the normal drainage of tears into the nose. Dry eyes generally improve within a few months after surgery, but in rare instances can continue for longer periods of time, and may require long-term use of lubricant drops and Comfort Plugs. Patients who have dry eyes prior to LASIK or PRK are more likely to experience dry eyes after the procedure.

### **Excessive Corneal Scarring Called Haze (for PRK patients)**

After PRK, a mild corneal scarring reaction is part of the normal healing process. It gradually subsides with little or no permanent effect on vision. However, if the scarring is excessive or does not go away, it can affect vision. The patient may need additional surface treatment to remove the scar. Excessive scarring is usually associated with higher levels of correction. This complication is much less common today as medications are used to prevent it. At LASIK MD, the incidence of significant scarring that affects vision is under 1 in 1,000.

### **Other Side Effects**

Other possible side effects include drug reaction and the appearance of "floaters" in the vision. Another side effect that is of no visual consequence is that red areas may appear on the white part of the eye, due to bruising that may last for two (2) to four (4) weeks after surgery.

### **Other Extremely Rare Complications**

Other risks include retinal bleeding and cornea perforation. Although extremely rare, blindness resulting from laser vision correction is **theoretically** possible in cases involving a severe eye infection that is not controlled with antibiotics. These complications have never occurred at any LASIK MD centre and are not known to have occurred since modern LASIK techniques were developed (1997). Approximately 1.4 million laser vision correction procedures were performed just last year alone, in North America. For comparative purposes, the risk of infection from daily soft contact lens wear is 1 in 100 over a 20-year period of lens use. Thus, the risk of infection from contact lens use is 500 times greater than that of LASIK, which has an infection rate of 1 in 50 000 procedures (LASIK MD rate 2001-2011).

## PATIENT PROCESS AND PROCEDURE

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### STEP 1 – PREPARING FOR YOUR PRE-OPERATIVE ASSESSMENT

#### IMPORTANT INFORMATION FOR INDIVIDUALS WHO WEAR CONTACT LENSES

Contact lenses can “mold” the corneal surface, which changes the corneal curvature and may lead to a change in your refraction (prescription). In order to properly calculate the treatment to correct your refractive error, you will have to stop wearing contact lenses at some stage prior to your appointments. In time, the cornea will return to its natural shape and size. LASIK MD is dedicated to providing you with the most accurate treatment, which can only be achieved if the corneal surface is stable and back to its natural shape.



For the vast majority of patients, the minimum recommended length of time for the removal of contact lenses should suffice. However, the individual rate of corneal adjusting may vary. If your cornea is still adjusting at the pre-operative appointment, you will be required to reschedule your surgery appointment for a later date. LASIK MD cannot reimburse for time off work, hotel, airline tickets or any other expenses incurred due to rescheduling.

#### Removal of Contact Lenses Prior to the Pre-Operative Evaluation and Surgery Appointments

TYPE OF LENS WORN	Local Patient	Out-of-Town Patient
<b>Soft Lenses<sup>1</sup></b> (daily wear, extended and toric)	Minimum 24 hours*	Minimum 24 hours*
<b>Rigid Gas Permeables</b> (worn for less than 20 years)	Minimum 4 weeks	Minimum 6 weeks
<b>Rigid Gas Permeables</b> (worn for 20-30 years)	Minimum 4 weeks	Minimum 8 weeks
<b>Rigid Gas Permeables</b> (worn for more than 20 years)	Minimum 4 weeks	Minimum 12 weeks
<b>Hard Lenses</b> (toric and true/ Polymethyl methacrylate)	Minimum 4 weeks	Minimum 12 weeks

*\*Do not sleep with contact lenses for (one) 1 week before the pre-operative evaluation.*

The difference in the lengths of time to remove contact lenses listed in the chart ensures that most out-of-town patients are not inconvenienced by rescheduling of appointments if corneal “molding” is apparent. **Medical evidence suggests that the likelihood of an enhancement is reduced the longer a patient has had their contact lenses out.**

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<sup>1</sup> A minimum of 24 hours of soft contact lenses removal is adequate for the majority of patients. On occasion, however, we find that the eyes are red and irritated with some inflammation, during the pre-operative exam. These symptoms are due to wearing contact lenses for long periods of time. The doctor may advise to have a second evaluation with contact lenses removed for one week before surgery is booked. The doctor may also prescribe anti-inflammatory drops before surgery can be performed. This occurrence is not common. However it is important that patients are aware of this possible condition.

## HOW TO PREPARE

- Consult the Contact Lens Policy to determine the minimum length of time contact lenses need to be removed.
- A dilation of the pupils may be performed. Eyes may be sensitive to light, so please bring a pair of sunglasses. It may also result in blurred vision, particularly for near work, for four (4) to six (6) hours afterwards.
- Please note that the medication used to dilate the pupils is not recommended for administration to pregnant women. If you are pregnant we ask that you notify us upon scheduling your pre-operative consultation.
- In consideration of other patients and to ensure your visit is as comfortable as possible, please do not bring children with you to the centre. The duration of your stay will be approximately two (2) to three (3) hours.
- You may not be able to return to work after the evaluation.
- You may have a pre-operative evaluation done with your own eye care professional at your expense. However, if you are having a pre-operative evaluation done with your own doctor, you are still required to have a complete pre-operative assessment at our centre before your surgery. **We are unable to confirm your candidacy for LASIK or PRK until our tests are completed.**
- LASIK MD will not be held responsible for any additional costs incurred as a result of a longer-than-planned stay. This can include, but is not limited to: any costs for travel and or accommodation; lost employment income; expenses incurred due to the patient being deemed a non-candidate; requiring enhancements; additional follow-ups or delays; rescheduling due to surgeon availability; equipment malfunction; acts of God, etc.

## STEP 2 – DAY OF THE PRE-OPERATIVE ASSESSMENT

### PATIENT INFORMATION

When you arrive at LASIK MD, our receptionist will greet you and ask you to fill out a patient information sheet. This sheet contains questions pertaining to your health, to medications that you may be taking, and other useful information that will help us create your profile.



### THE PRE-OPERATIVE EXAM

You will be taken to our pre-operative room where we will conduct a series of simple tests. There is no discomfort or pain.

Depending on your prescription, we may need to dilate your pupils. If so, your eyes will be sensitive to light. Please bring a pair of sunglasses with you to the appointment. We recommend that you do not drive long distances immediately after the appointment. Please note that the majority of patients have their eyes dilated.

Based on this information, we will then conduct a complete eye exam, the results of which will enable us to determine your candidacy. At this time, we will also determine the best treatment for you and will further explain the recommended vision correction procedure, and provide you with precise, **surgery-specific pricing**.

**STEP 3 – PREPARING FOR SURGERY**

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

- Consult the Contact Lens Policy to determine the minimum length of time contact lenses must be removed.
- On your surgery date, please refrain from wearing perfume, cologne or any product containing heavy fragrances (lotion, cream, fabric softener, etc.).
- Please do not use any product that contains alcohol such as hair spray, mousse, perfume and after-shave.
- Wear comfortable clothing on your surgery day. Please do not wear clothing such as wool or fleece that may generate lint in the surgical suite.
- There are generally no restrictions on eating or taking medications before or on your surgery day, however, please advise us of any medications you are taking.
- There are no restrictions on having a pacemaker during your surgery.
- It is important not to wear eye makeup for at least 48 hours before surgery and the day of the surgery. For your security, the procedure may be postponed if makeup is detected.
- We recommend that you avoid consuming alcohol on the day of your surgery, as this tends to dehydrate the tissues and can delay the healing process.
- In consideration of others, and to ensure that your visit is as comfortable as possible, we ask that you not bring children to the centre. The duration of your visit will be approximately (four) 4 hours.
- Please be aware that your eyes will be irritated and light sensitive following the procedure. This usually diminishes within 24 hours after surgery.
- We do not advise driving short distances for at least 24 hours and long distances for approximately three (3) days after LASIK and seven (7) days after PRK. Please arrange alternative transportation for after your surgery.
- Depending upon your occupation, you may need to arrange to be away from work following your surgery. Consult our "Time Off Work" information sheet for a detailed list of expected times for different occupations.
- If traveling from outside Canada, please remember to carry proper identification such as your passport and/or other proof of citizenship.
- 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.
- If you choose to have post-operative care with your own eye care professional at your expense, please book your appointments prior to your surgery date, and be prepared to give our centre the name of the eye care professional responsible for your follow-up care. Your follow-up visits should take place at one (1) to two (2) weeks, and one (1) to three (3) months following LASIK, with additional visits required for PRK.
- Patients having their procedure in British Columbia are required by the provincial College of Physicians and Surgeons to have a responsible adult accompany them, as well as provide transportation to and from both the surgery day appointment and the 24 hour appointment. LASIK MD will be obligated to reschedule the surgery appointment if this requirement is not met.

Our Patient Care Centre will be happy to provide you with referrals for travel and accommodations, although these remain your responsibility.

## STEP 4 – DAY OF SURGERY

### VERIFICATION OF PRESCRIPTION

Before you undergo your laser eye surgery, we will verify your eye prescription and measure your pupils to ensure the accuracy of results. If you wear contact lenses, please refer to our Contact Lens Policy about how long before the vision correction surgery you should remove your contact lenses

### SURGICAL COUNSELLING

Prior to surgery, we will explain the different steps you are about to go through, providing you with all of the necessary post-operative instructions, such as how to use the eye drops, etc. You will also be asked to sign a consent form (please refer to our Informed Consent section for more information on the informed consent process). Finally, we will ensure that payment has been made and will schedule an appointment for your mandatory 24-hour post-operative assessment.

To help you relax before your surgery, you can request a mild sedative which is commonly used for short term management of nervousness. If you request this sedative, the length of your surgery day visit will increase slightly.

\*Please note that for US LASIK MD locations, patients will be offered a prescription for a mild sedative during the pre-operative evaluation prior to the day of surgery.

### THE SURGERY

You will be escorted to the operating room and prepped for the procedure. You and your surgeon will again discuss the procedure you are about to undergo. Feel free to ask your surgeon any additional questions. Finally, the surgery takes place.

The procedure generally requires ten minutes of operating room time for both eyes, during which the laser is used on average for less than 20 seconds on each eye. Still, the actual duration of the procedure may vary according to the type and amount of correction needed.



### LASIK PROCEDURE (STANDARD AND ADVANCED CUSTOM WAVEFRONT)

The **LASIK** procedure utilizes a precision flap-making instrument, in addition to a device called an excimer laser. The procedure reshapes the cornea by removing tissue from its middle layer.

Before the procedure begins, eye drops are used to numb your eyes. While you relax on the treatment bed, your eyelids are gently held open and the precision instrument is carefully positioned. You will be asked to focus on a special fixation light. The surgeon activates a precision instrument electronically and seconds later is able to fold away a corneal flap, revealing the middle layer of the cornea. The cornea is reshaped by the laser and the corneal flap is then repositioned. Natural forces hold the flap in place until surface healing is complete.

The LASIK procedure offers extremely fast recovery: within hours of the surgery, the flap has usually begun to heal. Most patients are able to resume day-to-day activities just 24 hours after the surgery. You will receive a prescription for eye drops to use for five (5) days after surgery. You must also wear sunglasses at night to prevent rubbing your eyes for the first two nights after surgery.

## **PRK PROCEDURE (STANDARD AND ADVANCED CUSTOM WAVEFRONT)**

The **PRK** technique is used for people whose cornea may be too thin or too soft to allow for the creation of the corneal flap required for the LASIK procedure. During PRK, a small area on the corneal outer surface is gently polished away, renewing skin cells on the surface. The laser reshapes the corneal surface in exactly the same way as the LASIK procedure. In very few cases, someone may choose the PRK procedure if their profession causes them to be at much greater risk of getting hit in the eye and causing a LASIK flap movement (e.g. boxers, martial artists, wrestlers).

After the PRK procedure, your surgeon will place a soft contact lens on the cornea to protect the eye and reduce discomfort while healing. The contact lens will be removed after the initial surface healing is complete, usually within five days of the procedure. Your vision will gradually improve during the first two weeks, and in most patients, stabilizes between four to eight weeks after surgery. The surgeon will prescribe eye drops to take during this period.

For the first few days after either procedure, you are likely to experience some degree of discomfort. During this time, your vision may be blurry and/or may fluctuate between being clear and being blurry.

In some cases, a patient's vision improves immediately after the procedure, but later becomes blurry. These conditions affect patients differently. The final outcomes of PRK and LASIK are very similar; the difference is the healing time.

**You should not drive for at least 24 hours after either procedure** and in no event should you drive until your vision is clear.

## AFTER THE PROCEDURE

- Forty-five minutes to an hour after your surgery, we will examine your cornea.
- After surgery, you will be given a plastic, blue LASIK MD card with all your pre-operative information. Please keep this card as it may be important in the future.
- Wear the sunglasses provided.
- Follow the eye drop regimen recommended by the surgeon.
- Please refer to the Activity Schedule given to you at the clinic.
- It is very important not to rub or squint your eyes for a full week after surgery.
- In order to allow adequate time for your eyes to recover, we recommend that you anticipate taking the following number of days off work following your surgery. Please note that these are recommended guidelines and that it is possible to return to work earlier if your vision is good enough. Some patients return as early as the next day!

<b>Low Risk</b> (No dust or irritants, no risk of eye trauma, i.e. any type of office work)	<b>MEDIUM RISK</b> (Mild dust or irritants, mild risk of eye trauma)	<b>HIGH RISK</b> (Moderate dust or irritants, moderate risk of eye trauma)
Up to Two (2) days	Four (4) days	One (1) week

## STEP 5 – POST-OPERATIVE CARE

*Please remember that your follow-up care is as important as the actual procedure.*

### LASIK (STANDARD AND ADVANCED CUSTOM WAVEFRONT)

Following your LASIK procedure, you will be required to attend the following post-operative examinations:

- 1) 24 hrs (must be done at LASIK MD)
- 2) 1 to 2 weeks
- 3) 1 month
- 4) Any additional post-op visits we determine to be necessary

### PRK (STANDARD AND ADVANCED CUSTOM WAVEFRONT)

Following your PRK procedure, you will be required to attend the following post-operative examinations:

- 1) 24 hrs (must be done at LASIK MD)
- 2) Every other day for the first 4 to 5 days following your surgery
- 3) 1 to 2 weeks
- 4) 1 month
- 5) Any additional post-op visits that we determine to be necessary

The first month of post-operative examinations are covered in the cost of surgery. Additional appointments may be required. Please ask about our Vision Care Plans.

If you choose to use your own eye care professional, your doctor will require post-operative forms. After your 24-hour post-operative appointment you will receive, via fax or mail or in person, your refractive surgical report and post-op form for your own eye care doctor.

For patients who choose to have post-operative care with their own eye care professional, LASIK MD will not be responsible for any additional charges. LASIK MD will not reimburse either the patient or doctor for any additional charges.

## **ARE THERE ALTERNATIVES?**

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LASIK and PRK are elective surgical procedures. There is no medical condition or emergency condition requiring that you have LASIK or PRK. They do not correct all levels of refractive error and are not for everyone. We cannot guarantee that LASIK or PRK will improve your vision, or that they will eliminate your need for glasses or contact lenses. After the procedure, you may still need glasses or contact lenses for some purposes, either immediately after the procedure or years later. It is also remotely possible that your vision will not remain stable, either because the procedure leads to short-term and long-term changes in the cornea or because your eyes may change over time.

There are alternative methods of correction available, including the following:

### **Eyeglasses**

Eyeglasses are safe and most people can wear them reasonably well. However, depending on the nature of the correction, the lenses may be thick, reduce or increase the size of the visual image, and impair peripheral vision. Also, patients usually begin to experience the need for reading glasses as they age. The most common solution to this problem is bifocal lenses, which can be suitable for some patients, but can create a difficult transition for others.

### **Contact Lenses**

Contact lenses are another non-surgical alternative. Contact lenses come in a variety of materials. Comfort, effectiveness, and ease of use varies. Since contact lenses rest directly on the cornea, not everyone is able to tolerate them. If fitted and used properly, contact lenses are effective, relatively safe and easy to use. Complications arising from the use of contact lenses include allergic reactions, infections, scratches, ulcers, other injuries to the cornea, and even blindness.

### **RLE**

Refractive Lens Exchange is for individuals aged between 45 and 75 years old. This procedure is a possible alternative for nearsighted and farsighted patients. It can also be used to correct lens opacities, and, in certain cases, some astigmatism and presbyopia. RLE involves the removal of the internal lens of the eye. This lens is then replaced by an implanted one of correct refractive power to eliminate the need for glasses.

## **PRESBYOPIA PROCEDURES**

**Presbyopia procedures are performed in order to improve close vision after the age of forty (40)**

### **Multifocal Intraocular Lenses**

Multifocal Intraocular Lenses are used to correct presbyopia through the RLE procedure. These state-of-the-art intraocular lenses allow the patient to see both near and far, significantly reducing and often eliminating the need for reading glasses. This special type of lens mimics the function of the natural lens in young people (under age 40), simulating "accommodation".

### **Monovision**

Monovision is a form of treatment for presbyopia. One eye is fully corrected for distance vision, while the other is under corrected. This will leave the under-corrected eye with a mildly myopic prescription (nearsighted) for near vision. This small amount of myopia allows a presbyopia patient to see clearly up close, and therefore can avoid or reduce the need for reading glasses.

## **INFORMED CONSENT**

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You have the right to consent to or refuse any treatment or procedure at any time prior to its performance. Consent is a process that involves many steps. Please remember that we are available to help address your concerns, so do not hesitate to ask questions.

### **STEPS OF THE CONSENT PROCESS**

#### **Eye Exam**

During your pre-operative evaluation, we will examine your eyes to determine if you are a candidate for LASIK or PRK, according to criteria set by the surgeon. We will then provide you with an explanation of the procedure, including the risks, complications, expected benefits, alternatives (if applicable), and any particular conditions that might affect your decision to undergo the procedure.

#### **Surgical Counselling**

Before your surgery, we will ensure that you have a copy of the LASIK Information Booklet and the consent form(s). We will ask that you review these documents while we are present to address any questions that you have. After this, we will complete much of the information on the consent form(s) with you in preparation for the signing and witnessing of your signature.

#### **Surgeon**

To assist you in making an informed decision, your surgeon will help you review the risks and complications specific to you. Please ensure that your surgeon is aware if you have unanswered questions or if you do not understand any topic. You will also be given a specific post-operative plan, for which you will also need to provide consent. Your surgeon is not required to explain risks that are extremely remote, or those that your surgeon does not know about, even if these become known at a later time. Your surgeon will provide you with information and materials that would be considered reasonably necessary for a person in your position to use in deciding whether or not to undergo the procedure.

#### **Patient Consent Form**

If you decide to undergo the procedure after reading this material and speaking with us, you will need to sign the Patient Consent Form(s). These specify that you have been advised of the nature of the procedure (its risks, benefits, alternatives), and that in deciding to have it done, you are making an informed decision. You can request a copy of your Consent Form(s).

## **OUR COMMITMENT TO YOUR VISION**

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LASIK MD offers the option of purchasing several Vision Care Plans which cover the cost of enhancements and post-operative services for the duration of your plan.

### **Criteria for Enhancement Eligibility**

We recommend that patients complete their post-operative and annual exams as outlined in the LASIK Information Booklet at a LASIK MD centre, with a LASIK MD-affiliated doctor, or with your eye care professional. It is the patient's responsibility to maintain and forward proof of these exams to the LASIK MD location where they had the procedure done.

## **WE LOOK FORWARD TO SEEING YOU SOON!**

At LASIK MD, we understand that undergoing laser vision correction is a very important decision. We are devoted to helping you and making you feel at ease throughout the entire process. Our centres are brimming with new generation technology and our doctors have years of experience in the industry.

If you have any questions, or if you would like to schedule an appointment, please contact our Patient Care Centre at 1-866-366-2020. A Patient Care Representative is available to assist you seven days a week, and will be more than happy to help you.

Improve your quality of life today. With LASIK MD, you will see a world of difference!

**CONFIRMATION OF THE PATIENT'S UNDERSTANDING OF THE PROCEDURE**

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Please circle either True or False to the statements below to ensure that you understand the information explained in the LASIK Information Booklet or on the LASIK MD website.

1. True False LASIK surgery will permanently change the shape of my cornea.
2. True False There are no guarantees about the visual outcomes of the procedure.
3. True False LASIK surgery is the only method to correct my vision.
4. True False I may experience vision irregularities such as haze, halos and glare that may be permanent in certain cases.
5. True False After the procedure, follow-up visits are important.
6. True False I may experience mild to moderate discomfort for four (4) hours after the procedure
7. True False LASIK surgery will eliminate the need for reading glasses when I am over 40 years of age.
8. True False If I elect to have LASIK surgery, it is possible to experience complications when creating the flap.

Please verify your answers with the correct answers at the bottom right of this box. Note any that you have missed. If you would like to know why you missed any of these questions, please ask your eye care professional for clarifications.

Answers: 1. T 2.T 3.F 4.T 5.T 6.T 7.F 8.T