LASER VISION
CORRECTION
INFORMATION
BOOKLET
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WELCOME TO LASIK MD

First, we wish to thank you for choosing LASIK MD. We understand that the decision to get laser vision correction is a life-changing one. That’s why we want to provide you with all of the necessary information about this procedure—including the benefits, steps that you will need to take and potential risks. We understand that you may be feeling excitement at the prospect of freedom from glasses and contacts, so before you move forward with your procedure, this handy information booklet can help you answer questions you may have ahead of your surgery.

About LASIK MD
LASIK MD’s mission is to help our patients live life to the fullest, without the hassle of glasses and contacts. We provide high-quality vision correction and personalized care—plus, we’ll sweeten the experience with a chocolate chip cookie (or two). Above all else, we are committed to offering each and every patient an experience built on safety, quality, and affordability.

Eye care professionals
At LASIK MD, our team of eye care professionals is well-versed in the pre-operative, operative and post-operative management of vision correction procedures. Throughout your LASIK MD experience, you will be treated by our highly-trained staff, including optometrists and surgeons.

Optometrists
Optometrists are medical professionals that have completed four years of optometry school. They have obtained a doctor of optometry (OD) degree and are trained in diagnosing and treating refractive errors through non-surgical means. Furthermore, they are experienced in providing post-operative care following vision correction procedures. Your optometrist will collaborate closely with your surgeon to ensure the best possible surgical results are met and may be able to assume responsibility for your care as early as the day following surgery.

Surgeons
Your surgeon has a doctor of medicine (MD) degree and is experienced in the medical and surgical management of refractive errors and eye diseases. Surgeons complete four years of university, followed by four years of medical school and then a five-year residency of ophthalmology. LASIK MD surgeons have collectively performed over one million vision correction procedures (with 425,000 in Quebec alone), including LASIK (laser-assisted in-situ keratomileusis), PRK (photorefractive keratectomy), refractive lens exchanges (RLE) and refractive cataract surgeries. In the interest of clarity, LASIK, PRK and Laser PresbyVision™ will be referred to, collectively, as the “procedure” in the following pages. For more in-depth information about the different intraocular procedures we offer, such as cataract surgery, refractive lens exchange and Lens PresbyVision™, please refer to our Intraocular Procedure Information Booklet.

Please read this booklet carefully. It has been provided to you in addition to, but not as a replacement for, face-to-face conversation with your eye care professional. We also recommend that you consult our website, lasikmd.com or contact one of our representatives at 1-866-961-2020 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, the type of procedure you receive as well as the condition of your eyes. At your pre-operative consultation,
you will undergo a series of tests using advanced, diagnostic technology. Following this assessment, an eye care professional will discuss the price of your recommended treatment with you.

HOW THE EYE WORKS

Like a camera
The mechanisms of the human eye resemble that of a camera. Even the different elements of the eye are similar. There is the cornea, the clear, dome-shaped window that forms the front of the eye and the lens, which is the transparent structure inside of the eye. Then, there is the retina, the tissue found at the back of the eye—this is most like the film of a camera. The cornea and lens focus light onto the retina, producing an image that is sent to the brain which is the process of vision. The curves of a cornea and the lens determine whether the incoming light rays from distant objects focus directly on the retina.

What is 20/20 vision?
20/20 is a measurement used to illustrate the clarity of your distance vision. If your eyesight has been measured at 20/20, it means that you are able to see clearly at 20 ft what a person with normal vision can see clearly at 20 ft. On the other hand, if you have 20/40 vision, it means that you need to stand as close as 20 ft. to see what a person with normal vision can see clearly at 40 ft. If you have 20/15 vision, it means you see clearly from 20 ft. what a person with normal vision can see clearly from 15 ft. In other words, your vision is superior to that of an average person.
COMMON EYE AND VISION CONDITIONS

Emmetropia is when parallel rays are focused on the retina, and vision is perfect. When light does not focus directly on the retina, for whatever reason, this is known as refractive error. With appropriate visual aids, incoming light rays become focused on the retina, producing clear vision.

Myopia (Nearsightedness)
In myopia, the eye is longer than normal, preventing light rays from focusing directly on the retina. The 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. The 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 way in both the horizontal and vertical directions, like a baseball. When light rays hit the cornea, they focus on 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 and instead cause distorted vision. Many people with myopia or hyperopia have some degree of astigmatism.

Presbyopia
Presbyopia is an eye condition that typically occurs in people aged 40 and over. Presbyopia is caused by a loss of elasticity to the eye's natural lens. When signs of this eye condition start to appear, there is an increased difficulty focusing on smaller details, like fine print. Those who have presbyopia are usually required to wear reading glasses in order to see small objects better.
Keratoconus
Keratoconus is an eye condition characterized by an irregularly-shaped cornea. This cone-like shaped cornea deflects light as it tries to enter the eyes, which can cause distorted vision. Symptoms of this condition usually become evident in a person's late teens or early twenties. As it is a genetic condition, few procedures exist to fully correct or prevent symptoms of keratoconus from forming; however, there is a procedure available designed to help strengthen the structure of the cornea. This is called corneal collagen cross-linking, and is commonly referred to as CXL. For more information about keratoconus and treatment options available, please refer to our CXL booklet.

If you have any of the aforementioned eye conditions, then you may require correction. LASIK and PRK are used to change the shape and curvature of the cornea in order to correct or reduce refractive errors such as myopia, hyperopia and astigmatism. Changing the shape of the cornea alters the direction of light rays entering the eye so that they can focus correctly on the retina. Light rays focused on the retina lead to clear vision.

Please note that LASIK or PRK will not prevent up-close reading vision problems due to age (presbyopia), nor will they treat cataracts in patients over 40. A LASIK MD eye care professional can discuss the benefits of correcting presbyopia and/or cataracts with you during your pre-operative consultation.
OUR PROCEDURES

LASIK MD offers advanced laser vision correction technology. We use sophisticated diagnostic imaging to accurately evaluate your candidacy. LASIK MD has invested over $50 million in our clinics to ensure that patients are receiving the outcomes they want. Our clinics are outfitted with new generation laser platforms. Our commitment is to offer proven technology to achieve the best possible results. Our experienced team of professionals will recommend treatment options suited to your needs: LASIK and PRK, including Standard and Custom, and Laser PresbyVision™.

LASIK (Laser in situ keratomileusis)
Laser vision correction is one of the most popular elective procedures in North America. It has a proven track record of safety, with a complication rate that ranges between 0.001% and 0.05%. In the rare event that complications do occur, they are, in most instances, minor and treatable.

Back in the 1990s, LASIK began to become available on a more widespread basis. Since its approval for use on the market, more than 35 million procedures have been performed worldwide. More and more people are choosing laser vision correction to reduce their dependence on glasses and contacts and regain an active lifestyle. Those who choose to have laser vision correction report experiencing minimal discomfort during the procedure. LASIK can be used to correct nearsightedness (myopia), farsightedness (hyperopia) and astigmatism.

Standard LASIK
LASIK is a form of eye surgery in which a surgeon creates a thin flap of corneal tissue using a precise flap-making instrument, called a microkeratome. We also offer All-Laser LASIK (sometimes referred to as bladeless LASIK) at some of our clinics. All-Laser LASIK allows for a flap to be created without the use of a microkeratome; instead, another laser does the job of flap creation. Where both of these methods are concerned, the flap is raised and laid back while still attached to the cornea. The surgeon then uses an excimer laser to remove a pre-determined amount of corneal tissue from the exposed corneal bed. The amount of tissue the surgeon will remove is based on the strength of your own eye. Within minutes of completing the procedure, natural forces hold the flap down. The surface layer of the cornea—the epithelium—begins to grow over the edge of the flap to seal it into position. Days later, collagen bonds form inside the cornea around the edge of the flap, thereby sealing it shut. 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.

Custom LASIK
Custom LASIK allows for further customization of the standard LASIK procedure for clearer and sharper vision. If you have a high prescription, thin corneas or larger-than-average pupils, then Custom LASIK may be best suited for your eyes—and needs.

1As of 2010, 35 million LASIK procedures have been performed worldwide. Source: “Top 25 Eye Care Innovations” from Ophthalmology Times.
The Custom LASIK advantages

More patients are candidates
Custom LASIK allows for more patients to be candidates, including those with higher prescriptions, larger-than-average pupils, and even those who may have been deemed non-candidates in the past.

A better quality of vision
Custom LASIK improves the quality of both day and night vision compared to Standard LASIK and previous custom wavefront technologies. The advancements made to this procedure may lead to night vision superior to that of contact lenses.

Larger treatment zones
Custom LASIK allows for larger treatment zones and expanded levels of correction. Most patients who experienced poor vision at night before surgery reported a significant decrease in night vision disturbances after their surgery.

Preservation of corneal tissue
This procedure removes 20%-30% less corneal tissue compared to Standard LASIK. Preserving corneal tissue contributes to added safety and long term health of the eye. This is particularly beneficial for patients with thinner-than-average corneas, large pupils or high prescriptions.

Photorefractive keratectomy (PRK)
PRK, a procedure first performed in 1987, is a type of eye surgery in which a surgeon partially 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 that comes with LASIK. PRK may also be recommended for patients who rub their eyes often. Frequent eye rubbing can cause the corneas to soften over time. This procedure is used to correct nearsightedness (myopia), farsightedness (hyperopia) and astigmatism.

Standard PRK
The Standard PRK procedure differs slightly from LASIK. After the removal of the surface layer of the cornea, called the epithelium, your surgeon will use an advanced excimer laser to reshape the cornea by removing a pre-determined amount of corneal tissue. The amount of tissue removed is determined during the pre-operative exam. This measurement is based on the strength of your own eye.

Custom PRK
Custom PRK allows for further customization of the Standard PRK procedure, often resulting in clearer, sharper vision. If you have a higher prescription, thin corneas and larger-than-average pupils, then the Custom PRK is probably the procedure best suited for you.
The Custom PRK Advantages

Improved quality of vision
Custom PRK improves the quality of both day and night vision compared to Standard PRK and previous custom wavefront technologies.

Larger treatment areas
Custom PRK allows for larger treatment zones and expanded levels of correction. Most patients who experienced poor vision at night before surgery reported a significant decrease in night vision disturbances after their surgery.

Preservation of corneal tissue
This procedure removes 20%-30% less corneal tissue compared to Standard PRK. Preserving corneal tissue contributes to added safety and long-term health of the eye. This is particularly beneficial for patients with thinner-than-average corneas, large pupils or high prescriptions.

Laser PresbyVision™
Laser PresbyVision™ is a procedure that can significantly reduce a presbyopic patient’s dependence on reading glasses, eyeglasses and contact lenses. Considered an improved-upon form of monovision, a common type of surgery that corrects presbyopia, Laser PresbyVision™ uses a laser to reshape the cornea, giving the eye greater depth of field. With this procedure, the surgeon can correct the patient’s dominant eye to see clearly from intermediate to further distances, while the non-dominant eye can see clearly from an intermediate to near distances. This gives the patient an intermediate “blend zone,” meaning both eyes share the same visual acuity. As a result, patients can see objects that are near, intermediate and far without glasses. Also, it ensures the added benefit of preserving depth perception and contrast sensitivity. Compared to other presbyopia treatments, like monovision, patients who have had Laser PresbyVision™ have said that they adapt more quickly to the outcome of their procedure.

Intraocular Lens (IOL) Procedures
Intraocular lens (IOL) procedures are a possible alternative for nearsighted and farsighted patients. These procedures can also be used to correct lens opacities, and, in certain cases, some astigmatism and presbyopia. IOL procedures usually involve the removal of the internal lens of the eye. This lens is then replaced by an implanted one of correct refractive power to reduce the need for glasses. LASIK MD offers different types of intraocular lens procedures, such as refractive cataract surgery, refractive lens exchange, Lens PresbyVision™ and phakic intraocular lens surgery. For more information about the IOL procedures offered by LASIK MD, please refer to our Intraocular Procedure Information Booklet.

The information contained in this document is subject to change without notice. Please speak to a member of our staff for the most up to date information.
ARE THERE ALTERNATIVES?

LASIK, PRK and Laser PresbyVision™ are elective surgical procedures. There is no medical condition or emergency condition requiring you to have laser vision correction. These procedures do not correct all levels of refractive error and some patients may not be candidates. We cannot guarantee that the procedure will improve your vision, or that it 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 or years later. Please note that there is a possibility 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. Here are some alternatives to laser vision correction:

**Eyeglasses**
Eyeglasses are a safe option for vision correction. But 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 insertion can vary. Since contact lenses rest directly on the cornea, not all eyes are 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 and other potential injuries to the cornea.
WHO IS ELIGIBLE FOR A PROCEDURE?

Over 99% of laser vision correction patients are between 18 and 70 years of age. Patients who are 17 years old may be candidates for the procedure, but due to their age, require parental consent. In some cases, patients over 70 years of age may also be candidates for laser vision correction, but this usually follows cataract surgery.

There are certain conditions that may mean you are ineligible for a vision correction procedure, as they cause additional risks or complications. We will perform a thorough and comprehensive eye exam at your consultation to ensure that you are a strong candidate. If you have, or may have, any of the conditions indicated below, we encourage you to share them with your eye care professional, as they risk interfering with the healing process and may mean that you require additional care. Those conditions include, but are not limited to:

- Eye inflammation or infection
- Severe 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

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 laser vision correction.

Our laser beds cannot safely accommodate patients who weigh more than 396 lbs (180 kg). Laser beds may experience mechanical issues if a patient’s weight is between 300 - 396 lbs (136 kg to 180 kg). If this is a concern for you, please speak to our eye care professional during your consultation.
LIMITS TO CORRECTION

Laser vision correction does not correct the visual impairments listed below as these eye conditions are not refractive errors. Patients with such conditions may be subject to additional risks and side effects and should discuss their condition with their eye care professional before deciding to follow through with the procedure.

Amblyopia
Amblyopia—or “lazy” eye—is a medical condition that develops in early childhood. This condition is characterized by reduced vision, occurring when one eye relies on the other eye to focus. Laser vision correction cannot treat this condition. 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, the patient may experience 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. Laser vision correction will not correct, reduce, eliminate or prevent strabismus. Patients with certain types of strabismus are not eligible for laser vision correction.

Presbyopia
As a person ages, the strength of the eye's elasticity begins to decline. This condition is known as presbyopia. Several treatments are available at LASIK MD in order to treat this condition, such as Laser PresbyVision™ and Lens PresbyVision™. While the procedures we offer can reduce a person’s need to wear reading glasses, there is still a possibility of needing them from time to time.
HOW WILL SURGERY IMPROVE MY LIFE?

Reduce your dependence on glasses and contacts
The potential benefits for patients who undergo laser vision correction are numerous. 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 errors, it is also a method that can place restrictions on normal, everyday activities. For those who wear contact lenses, laser vision correction 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 or contact sports, are 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.

For those who have worn corrective lenses most of their lives, the prospect of being able to drive without wearing glasses or contacts, or waking without needing to put on glasses or contacts is a good enough reason. The potential benefits, just like complications, can vary, and should be considered carefully.
POTENTIAL COMPLICATIONS

Like any surgical procedure, laser vision correction comes with risks: less-than-favourable results, complications, injuries or more are tied to this procedure. Although the vast majority of our patients experience improvement to their vision, neither your surgeon, the clinic, or LASIK MD’s staff can guarantee that the procedure will be 100% effective or make your vision better than it was before the procedure.

It is during your pre-operative exam that the probable outcomes will be shared with you. These outcomes are typically based on any pre-existing eye conditions you may have. 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: Serious complications are very rare and the vast majority of our patients are highly satisfied with the results of their procedure.

Intra-operative complications

Short flap
A short flap occurs when the microkeratome doesn’t make a full incision. The flap that is made is too small, leaving insufficient space for laser treatment to be performed. When this happens, the flap is put back into place but the laser vision correction itself is not performed. Should this occur, we recommend waiting between three to six months before returning for surgery. Alternatively, PRK can be safely performed one 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 safe. At LASIK MD, the occurrence of short flaps is approximately 0.05%.

Thin flap
A thin flap, or “buttonhole”, happens when the microkeratome creates a thinner-than-normal flap. As a result, the flap is too thin to safely perform laser treatment. In the unlikely event that a thin flap is created, we recommend waiting between three to six months before returning for surgery. Alternatively, PRK can be safely performed one 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 safe. At LASIK MD, the occurrence of thin flaps is approximately 0.05%.

Free flap
A free flap (or cap) occurs when the flap detaches from the cornea. 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 0.002%. Please note that this complication is extremely rare with today’s modern technology.

Equipment malfunction
The precision flap-making instrument, the microkeratome, along with the excimer laser are properly maintained as per the specifications and directives provided by their respective manufacturers. Our equipment has emergency battery power supplies to complete the procedure should electricity go out at any point. Despite this, the equipment can 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 leave small wrinkles on the surface. These wrinkles are easily removed by the surgeon when they are found. Just 1% of patients may need to have wrinkles removed the day after surgery, but doing so will not have any impact on vision. Wrinkles rarely become permanent, nor do they risk affecting a patient’s vision.

Debris under the flap
Small amounts of particles or debris 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 post-operative 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 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 0.001%.

Infection
As with any surgical procedure, infection can be a factor. Infections after laser vision correction 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 risk of this occurrence is extremely rare. The American Society of Cataract and Refractive Surgery estimates that the average infection rate following LASIK is approximately 0.09%. Meanwhile, the infection rate at LASIK MD is 0.002%. This incident rate is significantly more favourable than the known incidence of infection of 0.05% per year with contact lenses (1% rate over a 20-year period of contact lens wear).

Halos or starbursts
After the procedure, some patients may experience an optical effect called a “halo” or a “starburst” in dim light or at night. These effects are, for the most part, temporary and typically last between two weeks to three months after surgery. These symptoms typically 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. If bothersome, it can often be improved with a customized laser treatment. This complication is rare with modern laser technology, particularly with customized procedures.
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 predisposed 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. According to research reported by the American Academy of Ophthalmology, the risk of a patient developing ectasia post-LASIK is 0.02%. This rate compares favourably with a known incidence rate in the population of soft corneas that bend on their own (without surgery) of 0.2%. Historically, this change in corneal shape required patients to wear a hard contact lens or in some rare 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 (Photophobia)/Fluctuating vision
Patients may become sensitive to light and glare or find that their visual acuity fluctuates after the procedure. Usually, these conditions are temporary and fade over time as the eye heals and vision stabilizes. For PRK patients, light sensitivity is common in the days—and sometimes weeks—after surgery, but rarely persists for longer than a month. For All-Laser LASIK patients, there is a slightly higher rate of light sensitivity, called transient light sensitivity syndrome (TLSS). There is a risk of this occurring two to six weeks after All-Laser LASIK. However, TLSS is not sight-threatening and can be treated with drops.

Optical imbalance
This problem can occur if a 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.

Undercorrection, overcorrection and regression
In rare instances, under and over correction can occur post-laser vision correction, which tends to be more common in patients with high prescriptions. 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, 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 to two 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. Some 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 retreatment 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 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 recommended 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 surgery in the other eye. A contact lens may be placed in the eye to help with healing. Most abrasions heal in one to three days. With the newer zero compression keratome, this complication occurs in less than 0.1% of 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 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.

Corneal neuropathic pain (Ocular pain)
Corneal neuropathic pain, also known as ocular neuropathic pain or corneal neuralgia (CN), is a recognized rare complication after LASIK occurring in about 1 in 20,000 patients. Corneal neuropathic pain is a localized pain condition. It is thought to be related to corneal nerves becoming hypersensitive and signaling too much after they heal (corneal neuropathy) and the brain interpreting the signals as discomfort (central nervous system sensitization). This is similar to persistent post-operative pain syndrome (PPP) that can occur with other types of surgery and trauma with nerve injury. It is not limited strictly to ocular procedures. With treatment, many patients can improve.
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 0.1%.

Other side effects
Other possible side effects include drug reaction and the appearance of floaters in the field of vision. Another side effect is that redness may appear on the white part of the eye due to bruising that may last for two to four 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 clinic and are not known to have occurred since modern LASIK techniques were developed (1997). For comparative purposes, the risk of infection from daily soft contact lens wear is 1% over a 20-year period of lens use.

There is a slight possibility that the procedure or a complication arising from it can cause your vision to be blurred, doubled, distorted, or to have halos or other disturbances. This condition cannot be easily corrected with glasses or contacts. In the event this should occur, your surgeon will discuss and offer you advice on further treatment, which may involve medications or more surgical procedures. If the outcome cannot be corrected by medications, lens exchange or external surface corneal surgery, the only way of restoring the vision may be through 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 30 years) are unknown.
THE PATIENT CARE PROCESS AND PROCEDURE

Step 1—Preparing for your pre-operative exam

Important information for contact lens wearers

Contact lenses can mould the corneal surface, which changes the corneal curvature, thus leading to a change in your refraction. In order to properly calculate the treatment to correct your refractive error, you will be required to stop wearing contact lenses at some point prior to your appointments. In time, the cornea will return to its natural shape and size. LASIK MD can only ensure the best possible outcomes if the corneal surface is stable, and in its natural shape.

For the majority of patients, the recommended minimum length of time for contact removal should suffice. However, the individual rate of corneal change may vary. If your cornea is still adjusting at either the pre-operative or surgery appointment, you will be required to reschedule your appointment for a later date. This will allow the cornea to return to its natural shape and refraction to stabilize, thus providing you with an opportunity to obtain the best possible result. LASIK MD cannot reimburse time off work, hotels, airline tickets or any other expenses incurred due to rescheduling.

The difference in the lengths of time to remove contact lenses listed below is to ensure that the majority of 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.

Removal of contact lenses prior to the pre-operative and surgery appointments*

<table>
<thead>
<tr>
<th>Type of lens worn</th>
<th>Local patient</th>
<th>Out-of-town patient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soft lenses (daily or extended wear, and toric)</td>
<td>At least 24 hours</td>
<td>At least 24 hours</td>
</tr>
<tr>
<td>Hard lenses (toric and true/poly(methyl methacrylate)</td>
<td>At least 4 weeks</td>
<td>At least 12 weeks</td>
</tr>
<tr>
<td>Rigid gas permeable (worn for 20 years or less)</td>
<td>At least 4 weeks</td>
<td>At least 6 weeks</td>
</tr>
<tr>
<td>Rigid gas permeable (worn for 21 to 29 years)</td>
<td>At least 4 weeks</td>
<td>At least 8 weeks</td>
</tr>
<tr>
<td>Rigid gas permeable (worn for 30 years or more)</td>
<td>At least 4 weeks</td>
<td>At least 12 weeks</td>
</tr>
</tbody>
</table>

*Do not sleep with contact lenses for one week before your pre-operative exam.
How to prepare for your pre-operative exam

- Consult LASIK MD’s Contact Lens Policy to determine the minimum length of time contact lenses should be removed prior to your procedure.
- Pupil dilation may be performed. As such, your eyes will be sensitive to light—we advise you to have a pair of sunglasses on hand. Pupil dilation may also result in blurred vision, particularly for near work. This can last for approximately four to six hours after administration.
- Please note that the medication used to dilate the pupils is not recommended for pregnant women. If you are pregnant, we ask that you notify us upon scheduling your pre-operative consultation.
- Out of consideration for other patients at our clinic, and to ensure your visit is as comfortable as possible, please do not bring children with you on the day of your pre-operative consultation. Your pre-operative consultation will take, on average, two hours to complete.
- You may not be able to return to work that day after the evaluation.
- You may have a pre-operative evaluation done with your own eye care professional at your expense. If you are having a pre-operative evaluation done with your own doctor, you are still required to have a complete pre-operative exam at our clinic before your surgery. **We are unable to confirm your candidacy for laser vision correction until our tests are complete.**
- 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 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 and more.

Step 2 – Day of the pre-operative exam

**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. You can also fill out this form online in advance – a link to it can be found in the confirmation email you’ll receive upon booking your appointment.

**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 what your prescription is, 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 prior to surgery.
- 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 products that contain alcohol, such as hairspray, mousse, perfume and after-shave.
- Wear comfortable clothing. Please do not wear clothing such as wool or fleece that may produce lint in the surgical suite.
- There are generally no restrictions on eating or taking medications before your surgery day. However, please advise us of any medications you are taking.
- Pacemakers are acceptable and will not interfere with your surgery.
- It is important not to wear eye makeup for at least 24 hours before your surgery. For your security, the procedure may be postponed if makeup is detected. Before wearing eye makeup again, you will have to wait three (3) days after LASIK and five (5) days after PRK (only if the bandage contact lens has been removed).
- We recommend that you avoid consuming alcohol on the day of your surgery as this tends to dehydrate tissues and can delay the healing process.
- Out of consideration for other patients at our clinic, and to ensure your visit is as comfortable as possible, please do not bring children with you on the day of your surgery. Your surgery appointment will total about four hours.
- 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 days after LASIK and seven days after PRK. Please arrange alternative transportation for after your surgery.
- Depending on your job, 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 you are 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 how your eyes are healing. If such is the 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. Be prepared to give our clinic the name of the eye care professional responsible for your follow-up care. Your follow-up visits should take place at one to two weeks, one to three months and one year 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 in the city of your choosing.

Step 4 – Day of surgery

Verification of prescription
Before you undergo your procedure, we will verify your 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 prior to your procedure you should remove them.

Surgical counselling
Before your surgery, we will explain the different steps ahead, providing you with all of the necessary post-operative instructions, such as how to use the eye drops and post-treatment care. You will also be asked to sign a consent form (for more information concerning this process, please refer to our Informed Consent section). Finally, we will ensure that payment has been made and will schedule an appointment for your mandatory 24-hour post-operative exam.

To help you relax before your surgery, you will be able to request a mild sedative which is commonly used for short term management of nervousness. Please note: This step typically increases slightly the amount of time that you will be required to stay in clinic as the sedative may take time to come into effect.

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.

The procedure generally takes 10 minutes to complete. In fact, the laser is used for less than 20 seconds per eye. Still, the actual duration of the procedure may vary according to the type and amount of correction needed.

LASIK procedure (Standard and Custom LASIK)
The LASIK procedure uses a precision flap-making instrument, in addition to the excimer laser. The procedure reshapes the cornea by removing tissue from its middle layer.

First, eye drops are used to numb your eyes. While you relax on the treatment bed, your eyelids will be gently held open. Then, 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 surgery, the flap begins 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 days after surgery. You must also wear sunglasses to sleep in order to prevent rubbing your eyes for the first night after surgery.
PRK procedure (Standard and Custom PRK)

During PRK, a small area on the corneal outer surface is gently polished away, renewing skin cells on the surface. The corneal surface is reshaped similarly to how it is with the LASIK procedure. PRK is used for people whose cornea may be too thin or too soft to allow for the creation of the corneal flap that is required for the LASIK procedure. In some 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 or 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 then be removed after the initial surface healing is complete. This usually takes five days. Your vision will gradually improve during the first two weeks. In most patients, vision stabilizes 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 will likely 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. Patients are usually affected differently; but the final outcomes tend to be very similar.

**Under no circumstance should you drive in the hours following surgery or until your vision is absolutely clear.** At your 24-hour post-operative follow-up appointment, an eye care professional will evaluate your eyesight. Upon being cleared by the eye care professional, you will then be given the go-ahead and be entitled to drive.

**After the procedure**
- 45 minutes to an hour after your surgery, we will examine your cornea
- You must wear the sunglasses that have been provided for you by the clinic
- 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 your eyes or squint 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. We will examine your cornea approximately 24 hours after the procedure

<table>
<thead>
<tr>
<th>Low risk</th>
<th>Medium risk</th>
<th>High risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>(No dust or irritants, no risk of eye trauma, i.e. any type of office work)</td>
<td>(Mild dust or irritants, mild risk of eye trauma)</td>
<td>(Moderate dust or irritants, moderate risk of eye trauma)</td>
</tr>
<tr>
<td>24-48 hours</td>
<td>4 days</td>
<td>1 week</td>
</tr>
</tbody>
</table>

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.
Step 5 – Post-operative care
Please remember that your follow-up care is as important as the actual procedure.

LASIK (Standard and Custom LASIK)
Following your LASIK procedure, you will be required to attend the following post-operative examinations:
   1) 24 hours (must be done at LASIK MD)
   2) Two weeks
   3) One year

PRK (Standard and Custom PRK)
Following your PRK procedure, you will be required to attend the following post-operative examinations:
   1) 24 hours (must be done at LASIK MD)
   2) Every other day in the first four to five days following your surgery
   3) One to two weeks
   4) One month
   5) One year

The first year of post-operative examinations are covered in the cost of surgery. Additional appointments may be required.

If you wish to have your optometrist handle your post-operative care, please notify a member of the LASIK MD team during your pre-operative consultation or on the day of your surgery. The LASIK MD clinic staff will be happy to address this request in order to ensure that your post-operative care needs are met.

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.
INFORMED CONSENT

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 answer any questions you may have.

Informed consent process

- **Eye exam**
  During your pre-operative consultation, we will examine your eyes to determine if you are a candidate for vision correction according to criteria established by the surgeon. We will then provide you with an explanation of the procedure, the risks, complications and expected benefits, the alternatives, if particular conditions that might affect your decision to undergo the procedure.

- **Surgical counselling**
  Before your surgery, we will ensure that you have been provided with a surgical information package and the accompanying consent form(s). We request that you review these documents while an eye care professional is present to answer your questions. After this, LASIK MD staff 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 cover the risks and complications that are specific to your needs. Please notify your surgeon if you have unanswered questions. 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 unlikely, 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 considered necessary for a person in your position to use in deciding whether or not to undergo the procedure.

- **Patient consent form**
  Now that you have read this material and have spoken to a clinical counselor, optometrist or surgeon, it’s time for the next step: undergoing your laser vision correction procedure. But before you do, you will need to sign a patient consent form.

  The patient consent form(s) will indicate to us that you have been made aware of the nature of the procedure along with any risks or benefits associated with it. In signing this, you have also been made aware of any alternatives to the procedure, and you are thereby making an informed decision to undergo the procedure. You may request a copy of your consent form(s) at any time.
OUR COMMITMENT TO YOUR VISION

At LASIK MD, we understand that choosing to undergo laser vision correction is a very important decision. We are committed to helping you feel at ease throughout the entire process. Our clinics are equipped with advanced technology and our doctors are among the most experienced in the industry. LASIK MD is committed to providing our patients with the best possible outcomes.

Vision Enhancement Plans
LASIK MD offers several vision enhancement plans (VEP) and each one provides patients with extended coverage. For the duration of your plan, our VEPs will cover the cost of any enhancements. In order to maintain eligibility, patients must attend each follow-up appointment and complete a biennial corneal health exam at LASIK MD. Failure to do so will result in a patient being no longer eligible for their VEP plan and will therefore be required to pay for the cost of their enhancement.

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 will be available to assist you seven days a week, and will be more than happy to help you.

Improve your vision today and discover how life begins with LASIK.
CONFIRMATION OF THE PATIENT’S UNDERSTANDING OF THE PROCEDURE

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  LASIK surgery will eliminate the need for reading glasses when I am over 40 years of age.
7. True  False  If I elect to have LASIK surgery, it is possible to experience complications.

Please verify your answers with the correct answers at the bottom right of this page. 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 clarification.
