

# *Preparing for your laser vision correction consultation*

## 1. Carefully Review the Enclosed Materials

## 2. Make a List of Any Questions or Concerns You May Have

Both the Canadian Ophthalmological Society (COS) and the Canadian Society of Cataract and Refractive Surgery (CSCRS) state that "careful patient selection [and pre-operative testing] is the key to good outcomes following refractive surgery". (*COS News Release, Nov. 24, 2000*). Unlike discount centres, Focus insists that your initial consultation be performed by one of our experienced eye doctors. Take advantage of your meeting with the doctor by preparing a list of any questions or concerns you may have regarding laser vision correction prior to your consultation.

## 3. Remove Contact Lenses at Least One Day Before Your Consultation

It is important that your eyes be allowed to return to their natural shape before having laser vision correction. The following is the average length of time contact lenses must be removed **prior to surgery**:

Type of Contacts	Length of Time
Disposable	4 - 7 days
Soft	1 - 2 weeks
Hard/Toric	up to 8 weeks

If you are interested in having surgery as early as possible after your consultation, please ensure that you keep your contact lenses out for the period of time set out in the schedule above.

## 4. Bring Along Someone Who Can Help You in the Decision-Making Process

During the pre-operative examination and consultation, the doctor will describe in detail the benefits, risks and different types of laser vision correction procedures. Your consultation will take approximately 1.5 hours.

## 5. Bring Along a Pair of Sunglasses

As part of the pre-operative testing, your pupils will be dilated. You will be very sensitive to light and your near vision may be blurry for about three hours or so afterwards. Although you will be able to drive after your consultation, you will find it very helpful to wear sunglasses until your pupils return to their normal size.

We look forward to meeting you and helping you discover a world without glasses or contact lenses!

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# Questions & *answers* about *Laser Vision Correction*

## **Q. What is LVC and Why Wavefront?**

At the best clinics, Laser Vision Correction (LVC) in 2010 and beyond is an extremely refined and precise procedure when done by an experienced surgeon in a quality clinic using the finest techniques and technology. Focus possesses all of the above, including Wavefront-guided Intralase SBK and PRK procedures.

Wavefront-guided Laser Vision Correction is our Standard of Care. Considered the gold standard for Laser Vision Correction, Wavefront is a pre-operative, no-touch diagnostic procedure that produces a computer generated map of any and all anomalies in the patient's eye. Wavefront guided Laser Vision Correction affords greater precision for the surgeon and better results for our patients.

## **Q. What is Intralase SBK?**

Intralase SBK is an advanced form of surface ablation that allows patients a visual recovery time measured in hours rather than days.

SBK is a procedure comprising the removal and retention of the epithelial layer by the femtosecond Intralase laser and the traditional excimer laser to correct the refractive error. The term SBK refers to the part of the cornea where the cleavage plane is created (i.e. just below the Bowman's layer in the anterior part of the cornea). This prevents almost all the potential complications of the traditional LASIK flap (e.g. decreasing the structural integrity of the cornea, a 30-plus percentage incidence of dry eyes and susceptibility to trauma) while providing post-operative comfort and rapid visual recovery.

Intralase SBK and PRK are both considered "extremely safe" procedures. The judgment of our surgeons is that these are the safest means of providing Laser Vision Correction.

## **Q. What is PRK?**

PRK (Photorefractive Keratectomy) uses a cool beam from the Excimer laser to reshape the surface of the cornea with a very short wavelength of light energy. Only a minute amount of tissue is removed, normally less than 10% of the cornea. The structure of the eye is not weakened and remains intact. PRK was first performed in 1987 and several million procedures have been performed in countries around the world. Due to the results Focus Eye and its patients are experiencing with Intralase SBK and PRK, our surgeons have made the decision to no longer offer LASIK.

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**Q. Will I become nearsighted again?**

PRK and Intralase SBK procedures are essentially permanent corrections. Studies have shown results to be stable once healing is completed, three to six months after the procedure. However, small amounts of regression can occur. Instances of this are exceptionally rare. Be aware that following LVC the human eye continues to undergo the normal aging process. So while refractive corrections are permanent, the eye remains subject to age-related issues such as cataracts and presbyopia, which occur independent of LVC.

**Q. Who is a good candidate?**

Most people who are nearsighted (myopic) or farsighted (hyperopic), with or without astigmatism, are eligible for the procedure. To be considered a good candidate, your prescription must be stable (i.e. less than one diopter of change over the course of a year). Normally, once you have reached your twenties, your prescription will have stabilized. If you undergo the procedure when your prescription is unstable, you may regress from the desired result. Also, women who are pregnant or who are nursing, are not good candidates for the procedure.

**Q. What are the risks?**

Laser Vision Correction is considered to be very safe. As with any surgical procedure, there can be complications and these will be described by your eye doctor. Visual outcomes for both PRK and Intralase SBK procedures are comparable. It is important to note that individual results may vary due to each person's healing rate. For this reason, less than 5% of patients (depending on their initial prescription) will need to undergo a touch-up procedure following their initial, primary treatment. The data on patients who have had Laser Vision Correction supports stable results with little, if any, regression. The risks and complications of both PRK and Intralase SBK will be discussed in detail on the day of your consultation.

**Q. Is there any pain?**

There is no pain during the procedure. Freezing drops are administered before the procedure to alleviate any discomfort. You may experience a scratchy sensation and may be sensitive to light for the first couple of days. Should you have any discomfort, pain relief medication is available.

**Q. Do I need to take time off work?**

Every person's healing rate is unique. Patients who have PRK generally return to work 4 to 7 days after the procedure. Normal activities including sports may be resumed at this time. With Intralase SBK, some patients see well enough to return to work within 24 to 48 hours.

**Q. What can I expect after Laser Vision Correction?**

After a laser procedure you can expect to see as well as you did with your glasses or contact lenses. For many patients the procedure means freedom to participate in sport and leisure activities without the hassles of corrective lenses or glasses. Others are motivated by the ability to see the alarm clock first thing in the morning. Whatever your motivation, the procedure offers a new freedom.

**Q. What is the Goal of Focus Eye Centre?**

Our goal is to provide a viable alternative to those nearsighted, farsighted and or astigmatic patients who are motivated to reduce or eliminate their need for glasses or contact lenses. Making an informed decision with reasonable expectations is an integral part of achieving this goal.

# Wavefront-Guided Procedures

## Every person's vision is as unique as their fingerprint.

Focus Eye is committed to providing outstanding medical care and the best possible results. This means using the gold standard in Laser Vision Correction technology: the WavePrint System from VISX, Inc.

Unlike traditional eye examination methods which provided information about only the corneal surface of your eye, the WavePrint Map reveals the way **your entire optical system** processes light. The WavePrint System thus provides a precise and more detailed analysis of your vision.

Using this information, Focus doctors can more accurately assess whether you are a good candidate for laser vision correction and the type of laser procedure which is best for you.

The WavePrint System allows Focus to give our patients the potential to see better than 20/20, to see better than they do with their contacts or glasses. Depending on the results of your WavePrint Map, your doctor may recommend a Wavefront-guided procedure as the optimal procedure for you. Wavefront is recommended for all qualified patients. In a Wavefront-guided procedure, information from the WavePrint Map is inputted into the laser. The result is a highly personalized treatment that takes into account the unique, individual characteristics of your entire optical system.

Wavefront-guided procedures are fully approved by Health Canada.

### Recovery Time

**Intralase SBK with Wavefront** .....as little as 24 hours.

**PRK with Wavefront** .....in most cases, patients are able to return to work after 4 to 7 days. However, some patients may need longer as healing is individual.

## *The Benefits of Wavefront*

In numerous clinical studies of Wavefront-guided procedures — both PRK and Intralase SBK — the results have been excellent. This is consistent with the results obtained from the Wavefront-guided procedures performed at Focus. With Wavefront, suitable candidates have an increased likelihood of:

- achieving 20/20 vision or better;
- obtaining better vision than they had with their glasses or contacts;
- achieving improved "quality of vision". In studies where patients have had one eye treated with Wavefront and the other treated using traditional procedures, the majority of patients reported sharper vision with the Wavefront-treated eye;
- avoiding possible night vision difficulties. For those candidates at risk of night vision problems with traditional procedures, the risk is significantly reduced with Wavefront-guided procedures.

Please do not hesitate to speak to any of our doctors or education coordinators, if you have questions about wavefront guided procedures at Focus Eye Centre.

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# *Monovision*

The human eye can focus on objects at different distances, similar to a camera, by automatically adjusting its depth of focus through a process called “accommodation”. All humans naturally lose their ability to accommodate over time, beginning gradually at age 42 and completely by age 60. For individuals who are nearsighted, this is not a big problem as they can take off their distance glasses and still see well up close. For individuals who are farsighted, the loss of the ability to accommodate will result in the need for reading glasses or bifocals.

So far the technology for refractive surgery has not yet come up with a reliable bifocal correction on the cornea. Therefore, if you are over 42 and want to see both distance and near without glasses then you will need monovision correction. This means that one eye is focused for distance and one eye is focused for near vision. Normally the dominant eye is focused for distance.

Although you may think monovision will leave you feeling “unbalanced”, almost all of our patients adjust completely within one week to a month. After this initial adjustment period, patients are not even aware which eye is being used — just that they can now see both distance and near for most of their everyday vision needs. As patients get closer to age 60 they will need magnifiers for very close work such as threading a needle or reading in bed.

(At Focus Eye Centre, the majority of our patients over 42 years of age choose to have monovision and the overwhelming feedback is that “it works”.)

## *To summarize monovision:*

### **Advantages**

- Ability to do most activities without glasses.
- Functional near vision without glasses (e.g. reading, writing and working on a computer).
- Retain peripheral vision and depth perception.

### **Disadvantages**

- May lose some stereopsis (near).
- After age 60 will need magnifiers for very close work (e.g. threading a needle).

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# REFRACTIVE LENS EXCHANGE (RLE)

## Understanding the Benefits of Refractive Lens Exchange (RLE)

People over the age of 40 who are dealing with nearsightedness, farsightedness or presbyopia, and experience a loss of reading vision, may benefit from Refractive Lens Exchange.

RLE is a permanent, extremely safe and common procedure with highly predictable outcomes that can provide qualified patients with the clear, natural vision they have been missing, or have simply never experienced.

Indeed, RLE has been the solution for many Focus Eye patients who once struggled to read their smart phones or computers, had grown frustrated with taking glasses on and off, and had difficulty reading the fine print on labels and menus.

During RLE surgery, an Ophthalmologist removes a lens and replaces it with a clear intraocular lens of a specific power designed to help the patient achieve a sharper focus. The procedure can be an excellent option for patients who do not qualify for Laser Vision Correction due to a combination of age, vision, and cataract symptoms.

The goal of RLE is to help patients achieve a greater degree of independence, including freedom from glasses and contact lenses. It is an important added benefit that RLE patients never need to worry about developing cataracts later in life.

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### WHO QUALIFIES FOR RLE?

- People 40 years and older with high degree of myopia (nearsightedness) or hyperopia (farsightedness) and who, due to thin corneas, are not candidates for a standard laser refractive procedure. Those suffering from: astigmatism, presbyopia, hyperopia and myopia (nearsightedness) may be treated, while some patients with early cataracts/lens changes may also benefit from RLE.
- Through the RLE procedure, Focus Eye Centre provides many people with clarity of vision and a freedom from corrective lenses they might otherwise never achieve.



### BIOPTICS

As a full-service Laser Vision Correction clinic dedicated to working with patients to achieve optimal visual outcomes, Focus Eye Centre offers Bioptics: the laser treatment of residual refractive error that may exist after a RLE procedure has been performed. Bioptics allows patients with degrees of astigmatism and refractive error outside the limits of each individual procedure to obtain their best possible results and reduce or eliminate their dependence on corrective eyewear.

## WHY HAVE RLE?

- During an RLE procedure a patient's cornea goes relatively untouched while the natural crystalline lens of the eye is replaced with an artificial one of a specific power designed to help the patient achieve sharper focus. The procedure gets its name from the fact that the natural lens of the eye is "exchanged" for a clear, artificial one.
- The wide-spread and growing popularity of RLE (essentially a cataract procedure but for refractive purposes) stems from advancements such as the use of lower energy with phacoemulsification (during which the old lens is broken down for extraction), smaller incisions, advanced lenses, and greater accuracy. Patients can achieve a level of visual acuity and freedom that literally changes lives.
- Because RLE removes the natural lens, there is no possibility of developing a cataract in the future, although a loss of accommodation does result. Monovision or multi-focus lenses can restore distance and reading vision.

### **Working in an Ontario College of Physicians and Surgeons of Ontario accredited operating room**

with an Anaesthetist, the surgical team at Focus Eye Centre including Registered Nurses who oversee pre- and post-operative care — treats a broad population of patients, ranging from those experiencing farsightedness (hyperopia) to those suffering from myopia (nearsightedness) and astigmatism.

Patient evaluation is essential to determine which patients are truly good candidates for an RLE procedure. A careful selection process begins with a detailed pre-operative assessment by an Optometrist that includes a comprehensive examination, as well as an assessment of patient expectations.

As for the RLE procedure, it is a relatively pain-free surgery performed under a mild anaesthetic

and monitored by an anaesthetist. The surgeon makes a small incision at the edge of the cornea and the lens is carefully removed using ultrasound technology and the lens is replaced with an intra ocular lens implant. Immediately following surgery, a patient may experience mild discomfort which should disappear within a day or so. Vision is good within hours. Eye drops are prescribed to ensure a quick and safe healing process.

As each person's eyes are unique, so too is their healing; the process will vary but is usually brief and comfortable. Healing is individual but most daily activities may be resumed within a few days, with mild to moderate exercise resuming in the weeks following surgery. One's vision is usually blurry during the first few hours of recovery and improves rapidly each day. Most people achieve legal driving vision within a matter of days.