

A clear



Phacorefractive
surgery
information **guide**

Vision



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Please note that the masculine gender is used throughout only to simplify the text.

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During your pre-operative consultation, you will meet with an optometrist and an ophthalmologist. They will perform a complete assessment of your vision and the health of your eyes to determine whether you are a good candidate for phacorefractive surgery (replacement of your natural crystalline lens with an artificial intraocular lens). If so, they will propose the type of correction that best meets your needs and lifestyle.

Our surgeons and the team of qualified optometrists and nurses who assist them will provide you with clear answers to all your questions in an effort to assist you in making a well-informed decision.

1.1 What to expect during the pre-operative consultation

The pre-operative assessment takes approximately **2 hours**.

To ensure the accuracy of your pre-operative measurements, **you must plan to stop wearing your contact lenses completely**:

- > a minimum of 7 days for soft daily-wear lenses (removed at night);
- > a minimum of 14 days for toric (to correct astigmatism) or extended-wear (worn overnight) soft lenses;
- > a minimum of 4 weeks per 10 years of wear for gas-permeable semi-rigid lenses.

Your ophthalmologist could ask you not to wear your contact lenses for a longer period of time, if deemed necessary.

Bring with you the complete list of all medications you are currently taking.

Bring with you your most recent glasses.

Anaesthetic eye drops will be used for some procedures. These drops will produce a numbing sensation on the surface of the eye for approximately 15 minutes. Over the next few hours, your eye may seem dry and/or your vision may be slightly blurred.

Dilation eye drops will be instilled in order to perform the detailed assessment of the back of the eye (retina). Pupil dilation increases sensitivity to light, creates a slight blurring of distance vision and temporarily reduces the ability to focus on nearby objects.

The dilation effect generally lasts 4 to 6 hours. It varies from person to person and according to iris pigment. It is not recommended to drive once your pupils have been dilated. Ideally, you should wear **sunglasses** and **arrange to have someone take you home afterwards.**

The pre-operative evaluation does not commit you to anything. Professional fees may apply for performing the examination and/or for writing up the ophthalmological assessment report. The IRIS Ophthalmology Clinic will deduct these fees from the cost of your surgery if you decide to go ahead with the procedure, as the case may be.

N. B. No prescription for glasses and/or contact lenses will be provided following the pre-operative assessment.

1.2 Planning your appointment

Please contact the IRIS Ophthalmology Clinic to schedule the date of your pre-operative assessment:

- > by calling **450-688-6574** or toll-free at 1-877-656-IRIS;
- > by emailing us at info.ophtalmo@iris.ca.

Our business hours are from **8:30 a.m. to 5:00 p.m.**, Monday to Friday.

The IRIS Ophthalmology Clinic is strategically located for easy access at **3030 boulevard Le Carrefour, suite 1105** (11th floor) in the HSBC building across the Carrefour Laval shopping mall.

With your consent, your eyecare professional will be able to send us a summary of your optometric file **by fax at 450-688-9516** or toll-free at 1-877-674-8256. For this purpose, the IRIS Ophthalmology Clinic could forward a reference form to him prior to the date of your pre-operative assessment. Your file, however, is not a substitute for the detailed exam that will need to be performed at the IRIS Ophthalmology Clinic.

Out of consideration for the other patients and for your own comfort during the assessment, **please arrange to be accompanied by someone to look after your young children**, as the case may be.

In order to better serve you, **please let us know if you are a person with a mobility impairment.**

The eye can be compared to a camera. The front part of it is composed of two natural lenses; the **cornea**, located in front of the iris, and the **natural crystalline lens**, located behind it.

The **iris**, which gives the eye its distinctive colour, acts as a diaphragm by controlling the amount of light that penetrates the eye through the **pupil** (black middle portion). In bright light the pupil contracts; in dim light it dilates.

The cornea is like a round window. Its curvature confers to it a certain focal power, comparable to a camera lens.

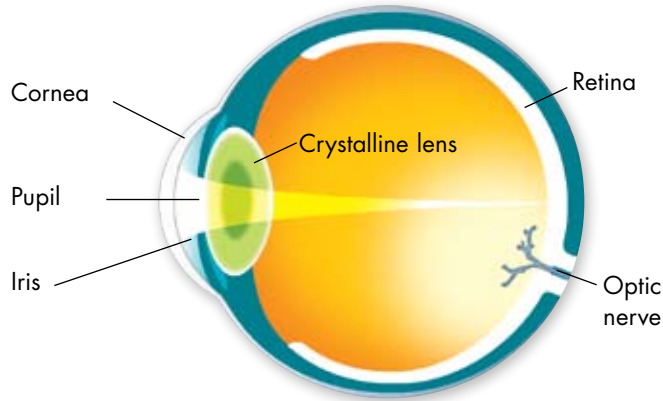
The crystalline lens is clear and elastic at birth. It is contained in a membrane called the **capsule**, which is attached to muscles.

When these muscles contract, the crystalline lens bulges out in the shape of a magnifying glass. This action, referred to as **accommodation**, allows the eye to adjust its focus on objects located at different distances. It is like the zoom on a camera lens.

Rays of light pass through the cornea and then the crystalline lens to converge on a focal point. After crossing a gelatinous substance called the **vitreous**, all of these points of light form an image that is captured by the **retina**. The retina lies at the back of the eye like a film in a camera. The image is then transmitted to the brain in the form of nerve impulses along the **optic nerve**.

N. B. Any damage or anomaly in any of these components can prevent someone from having perfect vision even after undergoing surgery performed under the best possible conditions.

Emmetropia: perfect focus on the retina



2.1 Emmetropia

An eye is considered to be **emmetropic** or **free of refractive errors** when the rays of light that pass through the cornea and the crystalline lens converge on a single clear point directly on the retina. In this case, the focus is perfect for **distance vision**. At that moment, the crystalline lens is at rest.

2.2 Distance vision and its defects

As the eye grows, defects in distance vision can arise that will need to be corrected by glasses and/or contact lenses.

During phacorefractive surgery, the ophthalmologist replaces your natural crystalline lens with an artificial one, commonly referred to as an *intraocular lens* (IOL), in the aim of reducing your reliance on glasses or contact lenses.

2.2.1 Myopia (nearsightedness)

If the **eye is too long** or the **cornea too steep**, the rays of light converge **in front of the retina**. The result is **blurred vision primarily at a distance**.

If you are myopic and remove your glasses, you can see better up close but have difficulty distinguishing objects further away.

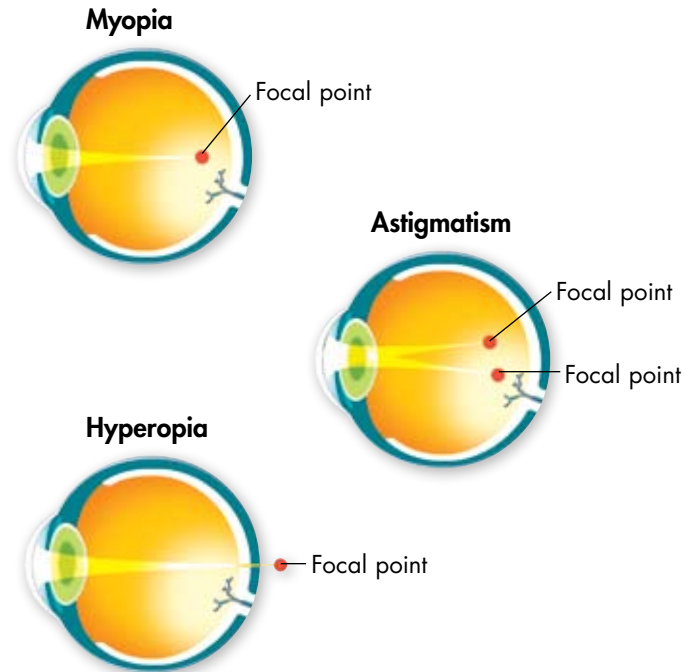
2.2.2 Hyperopia (farsightedness)

If the **eye is too short** or the **cornea too flat**, the rays of light converge **behind the retina**. The crystalline lens must then make a constant effort to adjust the focus of the image on the retina. This explains why certain people who are hyperopic have good distance vision for many years. However, this accommodative effort results in eyestrain, **primarily when looking up close**.

With age and the loss of elasticity of the crystalline lens, latent hyperopia will slowly begin to manifest itself with intermediate vision and distance vision becoming increasingly blurred.

2.2.3 Astigmatism

Astigmatism occurs when the **cornea is shaped like a "football"**, i.e. more curved on one axis and flatter on the opposite axis. Therefore, it results in two different focal points in the eye, either in front of or behind the retina (myopic astigmatism or hyperopic astigmatism). This type of visual defect can cause an uneven blur around an object or convey the impression of double vision.



2.3 Presbyopia: a loss of functionality of the crystalline lens with age

Throughout life, the crystalline lens gradually loses its natural elasticity. This elasticity, referred to as accommodation, allows us to alternate between far and near vision. **The loss of accommodation (presbyopia) is part of the natural aging process of the eyes and affects everyone** over 40. It continues into our 50s, at which time practically all of the elasticity of the crystalline lens disappears.

2.3.1 Telltale signs

If you wear glasses to correct distance vision, certain signs allow you to recognize the onset of presbyopia:

- > you have a tendency to hold reading material at arm's length;
- > your eyes tire or your vision blurs when you do close-up work for an extended period of time;
- > **if you are nearsighted, you will tend to remove your glasses to see more clearly up close.**

Myopia: Don't be fooled by the myth of eternal youth!

The crystalline lens is the structure of the eye most affected by the advancing years. Myopes people tend to believe that they do not become presbyopic around age 40 because they can adjust their vision at any time, effortlessly, **by simply removing their distance-vision glasses**. In fact, their visual defect serves as an escape hatch allowing them to mask their presbyopia.

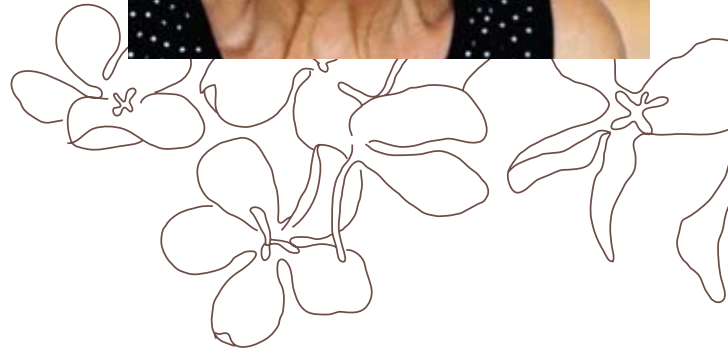
A cataract is defined as a loss of transparency of the crystalline lens. Its effect can be compared to looking through a frosted or tinted window. As the opacity may affect only a limited zone of the crystalline lens at first, the condition can go unnoticed. However, it tends to worsen gradually, resulting in deterioration of the quality of your eyesight.

Most cataracts are related to aging and generally appear after the age of 50. It is estimated that half the people 65 to 75 years of age have cataracts. The proportion jumps to 70% among those over 75.

If we live long enough, **we all eventually develop cataracts!**

Although the vast majority of cataracts are related to the natural process of aging, some can have other causes (e.g., exposure to ultraviolet rays, medication, trauma, etc.).

To date, no medication, dietary supplement or exercise has been shown to be effective in preventing or treating cataracts. **Surgery is the only definitive treatment for this condition.**



3.1 Symptoms of a cataract

Cataracts generally occur in both eyes, but it is not uncommon for one eye to be more affected than the other.

Cataracts generally evolve slowly and manifest themselves through various symptoms:

- > impression of looking through a veil;
- > sensitivity to light;
- > glare;
- > perception of halos or stretching around lights at night;
- > frequent prescription changes in your eyeglasses and/or contact lenses;
- > temporary improvement in near vision without eyeglasses;
- > colours appear faded or different;
- > double vision in one eye or ghosting around objects.

N. B. Some of these symptoms can also be associated with other ocular conditions. This is why it is important to **consult your eyecare professional annually or as soon as you perceive a significant change in your vision.** It will thus be possible to detect the problem early on.

3.2 When should a cataract be operated on?

Phacorefractive surgery can be considered the moment cataracts affect your daily activities (e.g., driving, reading, watching television, etc.). It becomes all the more relevant if your optometrist can no longer attenuate your symptoms with new corrective glasses.

There is generally no danger in putting off phacorefractive surgery until you feel ready. However, with modern surgical techniques, it may be more difficult to remove the crystalline lens when a cataract is well advanced. **The old belief that cataracts should be allowed to “mature” before being removed no longer holds.**

Based on your symptoms, your ophthalmologist will determine with you when it would be best to operate on your cataract. He will assess the risks of surgery and the likelihood of improving your vision through the procedure.

3.3 Why not replace a clear crystalline lens?

Replacing a clear crystalline lens is the same procedure as cataract surgery. However, its primary objective is to diminish your reliance on corrective glasses.

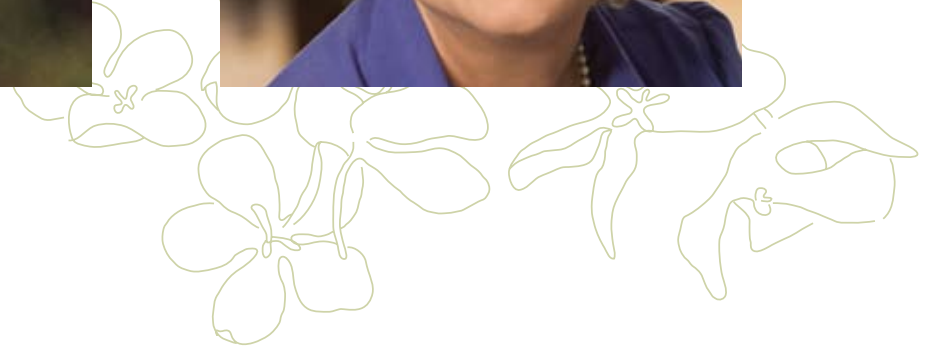
Phacorefractive surgery becomes the technique of choice if:

- > the other surgical methods for correcting vision are not right for you (e.g., laser surgery);
- > you already present signs of presbyopia (45 years of age or over);
- > you would like to correct your presbyopia in addition to your myopia or hyperopia;
- > you have the beginnings of a cataract or you are predisposed to cataracts on account of your age (55 years of age or over);
- > you have already been operated on for a cataract in one eye and would like to equalize the vision in both eyes;
- > you would like to correct your vision in a way that will last over time.

You stand to benefit from a **stabilizing effect** by replacing your natural crystalline lens with an artificial intraocular lens that will not age or deteriorate over time. **Hence, this surgical procedure keeps you from developing or redeveloping a cataract for the rest of your life!**

You would be benefitting from a tried and tested technology that has proven effective and safe with millions of people who have undergone this cataract surgery in the past 50 years.





Thanks to a detailed assessment of your vision and the health of your eyes, the ophthalmologist will be able to determine the relevance and likelihood of success of phacorefractive surgery.

The choice of this surgical technique and the choice of the type of intraocular lens will depend closely on other key factors:

- > your personal and family history of ocular and systemic health problems;
- > your needs and lifestyle;
- > your expectations and personality.

To avoid complications and foreseeable disappointments, it will be of capital importance that you provide the ophthalmologist with all the pertinent information to prepare your surgery.

4.1 Eye health questionnaire

The ophthalmologist will need to know your ocular history in order to:

- > decide on the type of intraocular lens to implant and calculate its power accurately;
- > decide on the surgical method to use;
- > assess the risks during and after the surgery;
- > estimate the likelihood of you obtaining a satisfactory quality of vision after the surgery.

	Yes	No
> Do you wear glasses and/or contact lenses?		
> Are both your eyes corrected for distance vision?		
> Do you use glasses to see up close when you wear your contact lenses?		
> Do you have one eye corrected for distance vision and the other for near vision (monovision)?		
> Are the contact lenses you wear of the multifocal type?		
> Do you or a member of your family suffer from an ocular disease or anomaly?		

The main ocular conditions, diseases or anomalies that can influence the outcome of your surgery include, but are not limited to, the following:

- > prior ocular surgery to correct your myopia, astigmatism or hyperopia;
- > direct eye or orbit trauma;
- > retinal tear or detachment;
- > anomaly of the cornea;

- > anomaly of the retina or optic nerve;
- > infection or inflammation;
- > amblyopia (lazy eye) or strabismus (turned eye).

4.2 General health questionnaire

Are you on medication?

Unless specifically instructed by the surgeon, you will not need to interrupt your medication prior to the pre-operative assessment or to the surgery.

Bring with you a detailed list of:

- > the medication eye drops you use;
- > the systemic medication you take on a regular basis.

Do not leave out any detail as certain medications can require the surgeon to modify his surgical technique, your pre-operative preparation or your post-operative eye drop dosage.

Do you suffer from a systemic disease?

Unless you suffer from a particular condition, you will not need to provide a medical report from your doctor. However, it is critical that the ophthalmologist be informed of any condition relative to your general state of health that could:

- > bother you during the procedure;
- > necessitate specific precautions in terms of sedation or monitoring of vital signs during the procedure;

- > interfere with the safety of the surgical team;
- > prevent taking certain medications during or after the procedure;
- > affect the post-operative healing process.

4.3 Tell me who you are and I will tell you which kind of intraocular lens is right for you!

During the pre-operative assessment, the optometrist and the surgeon inform you of the advantages and disadvantages of the different types of intraocular lens. They will be able to advise you on the choice best suited to your needs and lifestyle. The power and the type of lens will be carefully chosen to ensure your diminished reliance on glasses and/or contact lenses.

It is important to understand that several patients will still need to **wear glasses after the surgery** in order to **perform certain tasks under certain conditions**.

4.3.1 The 5 “OPTICAL ZONES”

Think about your daily activities.

Determine how much the fact of wearing glasses and/or contact lenses interferes with your activities.

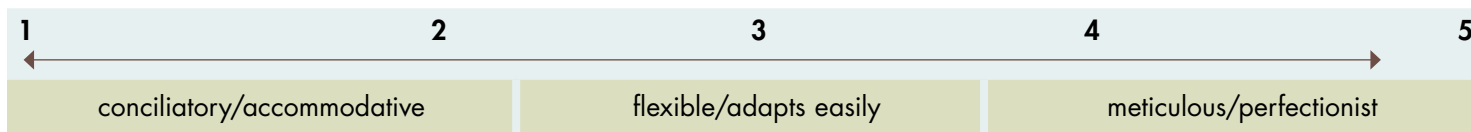
near vision		distance vision		
Zone 1 (30 to 50 cm)	Zone 2 (60 cm to 1.20 M)	Zone 3 (1.80 to 6 M)	Zone 4 (6 to 30 M)	Zone 5 (30 M and +)
<ul style="list-style-type: none"> > newspaper articles > telephone directory > geographic map > sewing/knitting 	<ul style="list-style-type: none"> > computer screen > newspaper headlines > reading menus > reading price tags > cooking 	<ul style="list-style-type: none"> > indoor activities > watching TV > housekeeping 	<ul style="list-style-type: none"> > daytime outdoor activities > daytime driving > playing golf > reading road signs 	<ul style="list-style-type: none"> > night-time outdoor activities > night-time driving > going to the movies > stargazing
Group A (near vision)		Group C (distance vision)		
Group B (intermediate vision)				

Which group is most important to you?
(choose only one)

- > Group A: zones 1 and 2
- > Group B: zones 2 and 3
- > Group C: zones 3, 4 and 5

4.3.2 Lifestyle questionnaire

On the scale below, circle the personality trait that best describes you.



Are you interested in seeing far without glasses after the surgery?

- > I prefer not to wear glasses for distance vision.
- > Wearing glasses for distance vision does not bother me.

Are you interested in seeing close without glasses after the surgery?

- > I prefer not to wear glasses for near vision.
- > Wearing glasses for near vision does not bother me.

If you had to wear glasses after surgery, for which of the following activities would you be most willing to wear them?

- > Reading small print (near vision)
- > Working on the computer or cooking (intermediate vision)

- > Driving or watching television (distance vision)
- > Wearing glasses does not bother me under any circumstances.

Does your work or your daily activities require you to drive often in the evening or at night? (2 hours or more)

- > Yes > No

If you could have good distance vision without glasses during the day and good near vision without glasses, would you be prepared to tolerate perceiving halos around lights at night?

- > Yes > No

If you could have good distance vision without glasses during the day and good near vision without glasses, would you be willing to wear glasses for specific tasks in intermediate vision (e.g., working at a computer, cooking)?

- > Yes > No

4.4 Should you consider phacorefractive surgery?

The persons with the highest satisfaction rating following their surgery are generally:

- > those who have **realistic expectations** about what their vision will be like after their natural crystalline lens is replaced with an artificial intraocular lens;

- > those who **understand the potential risks and side effects** of such surgery.

This short questionnaire can help you determine whether you are ready for phacorefractive surgery.

	Yes	No
> Do your glasses and/or contact lenses interfere with doing your work, playing sports or performing daily activities?		
> Do you understand and accept the risks of surgery?		
> Do you understand that the effects of the surgery will be permanent and irreversible?		
> Do you understand that the surgery will require that you submit to check-ups at regular intervals? Will you have the time to go to these?		
> Do you understand that the results of the surgery cannot be 100% guaranteed?		
> Do you understand that you could have to wear glasses after the surgery to perform certain tasks under certain conditions?		
> Do you understand that you could need a second surgical procedure in order to enhance the outcome of the first, if deemed necessary and safe by the ophthalmologist ?		

If you answered “no” to any of these questions, we encourage you to discuss the surgery and your expectations further with your ophthalmologist.

Unlike conventional hard lenses (PMMA), the intraocular lenses used at the IRIS Ophthalmology Clinic feature all the advances introduced by new-generation technologies:

- > **foldable** materials (silicone or acrylic) allowing sutureless micro-incisions;
- > an integrated **UV filter** and, in some cases, a blue-blocker treatment making it possible to limit the detrimental effect of certain light rays on the retina, particularly the macula;
- > an improved lens edge design allows reducing bothersome glare (dysphotopsia) and inhibits posterior capsule opacification after the surgery, commonly referred to as “after-cataracts”;
- > in certain cases, an optical profile obtained with wavefront technology makes it possible to correct natural aberrations of the eye and the impaired sensitivity to contrasts related to aging.

The options: seeing far, seeing near or both

At the IRIS Ophthalmology Clinic, the ophthalmologist has a wide range of intraocular lenses at his disposal to meet each person’s specific needs. No type of lens is right for everyone. **Your surgeon will determine the one best suited to you.**

There are different types of intraocular lens available:

- > monofocal;
- > multifocal.

5.1 Monofocal lenses

The monofocal lens provides a single focus point, that is, it allows the eye to **see well at a single distance.**

Monofocal lenses are most suitable for people who are willing to wear glasses or who have an anomaly in one or both eyes.

Your optometrist and ophthalmologist can offer you different correction options using monofocal lenses:

- > both eyes corrected for distance vision;
- > monovision: one eye corrected for distance vision and the other for near vision.

5.1.1 Both eyes corrected for distance vision

If you decide to have both eyes corrected for distance vision, you will enjoy the best quality vision for your distance-vision activities. It's what nature should have given you from the beginning (e.g., daytime/evening driving, watching television, going to the movies, playing sports, etc.).

However, you will have to wear glasses in order to correct your intermediate and near vision. Progressive lenses may be necessary, even if you don't need to wear them in order to see at a distance (e.g., reading books, working at a computer, cooking, reading the time on your watch, putting on make-up, shaving, performing do-it-yourself work, etc.).

5.1.2 Monovision: one eye corrected for distance vision and the other for near vision

You can choose to have one eye (dominant) corrected for distance vision and the other (non-dominant) for near vision. This method provides an option that can reduce your dependence to corrective lenses.

Monovision may be simulated by contact lenses before surgery. It is not suited for everyone, because it **requires compromises** in vision quality:

- > good vision at two specific distances (one for each eye), but it may not be perfect under certain circumstances;
- > reduction in stereoscopic vision (3D vision) leading to a loss of depth perception;
- > possible perception of halos around lights in the evening.

Corrective lenses may be necessary to equalize vision in both eyes to improve your comfort when performing lengthy tasks requiring precision (e.g., driving your car at night, working at a computer, reading small print, etc.).

5.2 Multifocal lenses

The multifocal lens uses an optical principle that allows separation of light into several focal points. This principle allows “**simultaneous vision**” at more than one distance at the same time, in the same eye.

When the eye captures the different focal points, it selects the one that allows it to best see the object viewed at a certain distance. The image selection process is not natural for the eye and requires a **period of “neuronal adaptation”**, which may vary from person to person. In fact, the visual system must “learn” to see through another form of vision.

Adaptation to multifocal intraocular lenses generally takes **3 to 6 months** after surgery has been performed on both eyes. This neuronal adaptation is comparable to the capacity to adapt to new eyeglasses with progressive lenses. Some individuals adapt easily within a few days, while others take more time or, in rare cases, never manage to do so.

Some multifocal contact lenses may help you understand or simulate the effect of a multifocal intraocular lens prior to surgery.

At the IRIS Ophthalmology Clinic, the ophthalmologist makes a point of placing at your disposal products that meet the highest standards of effectiveness and safety.

The multifocal lenses used at the IRIS Ophthalmology Clinic act like a bifocal lens in that they split the light to two distinct focal points; **one for distance vision** (Group C) and **the other for near vision** (Group A).

With this type of lens, **very little light is devoted to intermediate vision** (Group B). Therefore, the lens provides good vision at a short distance (32-39 cm).

The quality of vision is not as good when objects are moved back to an **intermediate distance** (arm’s length). Back-up glasses could therefore be necessary for certain tasks (e.g., working at a computer).

Moreover, the quality of near vision (Group A) can vary depending on lighting conditions. If needed, it is recommended that **a reading lamp be used for reading**.

5.2.1 Advantages

Multifocal lenses may suit you if you highly wish not to wear corrective lenses for both distance and near vision.

Your ophthalmologist **cannot guarantee** you will **never** need to wear glasses after surgery, even if you choose the multifocal lens. Regardless of what kind of lens is used, it is quite likely that you will **occasionally** need to use corrective lenses for certain precise tasks, under certain conditions.

5.2.2 Compromises: *what you give up to gain*

Multifocal lenses come with certain visual effects to which you will need to adapt:

- > **perception of halos or stretching around lights at night** or during periods of dimmed light;
- > slight reduction in sensitivity to contrasts under certain lighting conditions (e.g., in fog);
- > good vision in general, but may not be perfect in all circumstances.

Most of these effects are irreversible and cannot be corrected with glasses. However, thanks to the phenomenon of neuronal adaptation, the annoyance caused by these side effects tends to diminish over time (You will get used to it!).

Corrective lenses can improve the quality of vision when a residual defect is present (myopia, hyperopia or astigmatism).



5.2.3 Are you a good candidate for multifocal lenses?

The multifocal lens **might not suit** you if:

- > you are a perfectionist, careful about detail and/or you have unrealistic expectations;
- > you find it difficult to adapt to change;
- > you are subject to depression;
- > your work requires that you drive often at night;
- > your activities and leisure pursuits depend on excellent nocturnal vision;
- > you are an airplane pilot (amateur or commercial);
- > you have always been sensitive to light;
- > you wish to be certain about the results of the surgery;
- > you are happy with your glasses.

Despite all of your goodwill, the ophthalmologist might decide that the multifocal lens **is not the ideal solution if:**

- > you show a high degree of astigmatism;
- > you have an ocular disease that reduces the quality of vision in one or both eyes;
- > you have amblyopia (lazy eye) or you suffer from strabismus (turned eye);
- > you are unsuitable for a touch-up by laser surgery (LASIK or PRK);
- > you have already undergone vision correction by laser or radial keratotomy.

5.3 The options at a glance

Type of LENS	Advantages	Disadvantages
Monofocal > Toric lenses available (to correct astigmatism)	2 eyes for distance	
	> Excellent distance vision ; > Few bothersome light effects; > Good nocturnal vision or under conditions of dimmed light.	> Glasses must be worn at all times for activities requiring intermediate and near vision .
	Monovision	
	> Allows freedom from glasses for distance and near vision ; > Vision in both eyes may be equalized by wearing glasses for tasks requiring precision.	> Reduction in stereoscopic vision (depth perception); > Moderate halos around lights; > Good vision, but may not be perfect under certain conditions; > Sometimes back-up glasses are necessary for precision or lengthy tasks.
Multifocal	> Allows freedom from glasses when viewing both at a distance and up close ; > Good vision for small print up close (32-39 cm); > Maintains binocular vision (2 eyes together).	> Perception of halos around lights; > Slight reduction in contrast sensitivity; > Limited intermediate vision (arm's length); > Sometimes back-up glasses are needed, mainly for intermediate vision ; > Sometimes a reading lamp is needed for reading .

In the days prior to surgery, you will not have to instill medication eye drops unless otherwise stated by the ophthalmologist. However, if you already use eye drops to treat another ocular condition, you should continue to use them before the procedure.

Unless you have a particular condition, you will not need to interrupt your regular medications before surgery.

Reminder: The ophthalmologist must be provided with the full list of your medications and allergies.

To optimize the outcomes, you should stop wearing your contact lenses completely before the surgery:

> at least 48 hours.

Your ophthalmologist could ask you not to wear your contact lenses for a longer period of time, if deemed necessary.

6.1 Day before surgery

It is recommended that you shower or bathe the day before or the morning of your surgery. Make sure to wash your hair and face as this will be harder to do in the first 24 hours after surgery.

Women will need to carefully remove their make-up the day before the procedure.

Arrange to have someone take you home after the procedure as you will not be able to drive.

N. B. Please advise us at least 24 hours in advance if you must cancel your surgery.

6.2 Day of surgery

You will be asked to arrive at least 45 minutes before the scheduled time of your surgery. Although the procedure lasts a short while, **plan on being at the clinic for about 2 hours.**

You can eat, drink and take your usual medications the day of your surgery.

Do not apply any make-up, cream or lotion on your face.

Wear clean, comfortable clothing that can be unbuttoned easily. Do not wear clothing that constricts tightly around your neck or arms. Do not wear fabrics that shed, such as wool or cotton fleece.

Arrange to have clean indoor shoes or slippers with you.

You will be provided with a hospital gown, cap and booties to cover your clothes, hair and shoes before entering the operating room. **You will not need to undress for the procedure.**

6.2.1 Consent form

Before surgery, you will be asked to carefully read and sign a consent form (see Appendix 1). You may discuss any questions or concerns you still have with your ophthalmologist **at this time.**

6.2.2 Methods of payment

Surgery fees are paid **prior to the procedure.**

You will be issued a receipt in duplicate for income tax purposes. You will be able to claim these as medical expenses for a tax deduction.

Most methods of payment are accepted:

- > cash;
- > direct payment (make sure that the surgery fees do not exceed the daily safety limit imposed by your financial institution);
- > credit card (MasterCard, Visa, American Express);
- > certified cheque;
- > financing plan*.

* The IRIS Ophthalmology Clinic offers an attractive financing plan in the form of equal monthly payments with no interest charges or fees. Ask our customer service for the conditions that apply.

N. B. Personal cheques are not accepted.

6.3 Preparing for surgery

The surgery normally takes **less than 30 minutes.**

As a general rule, the ophthalmologist operates on only one eye per session. In most cases, the other eye is operated on at a one-week interval.

Under the supervision of a certified nurse, you will be led to a comfortable room where you will be prepared for surgery.

Different eye drops will be instilled in the eye to be operated on:

- > anti-inflammatory and antibiotic eye drops, and;
- > mydriatic eye drops to dilate your pupil.

The dilation eye drops take effect after 15 to 30 minutes and their action can last for several hours after the surgery.

Medication to control anxiety will be given to you, as needed.

The nurse will measure your blood pressure and your heart rate.

When your pupil will be sufficiently dilated, the ophthalmologist will lead you into the operating room.

During the procedure, you will be lying down on a surgical chair. The ophthalmologist may install a strap around your head to stabilize your position during the procedure.

A pulse oximeter will be used to monitor your heart rate and the level of oxygen in your bloodstream.

The ophthalmologist will apply an aesthetic gel to the eye to be operated on. Consequently, you should feel no pain during the procedure.

You will be asked to look straight ahead in the direction of the microscope's light. This light might appear very intense at first, but your eye will adapt to the glare.

A large sterile drape will cover your face and body. It will be attached around the eye to be operated on with the use of a very strong adhesive. If needed, a tube blowing a constant flow of air and oxygen will be placed under the drape to allow you to breathe comfortably.

If you suffer from claustrophobia, mention it to the nurse and ophthalmologist. They will do all that is possible to ensure your comfort. The fact that you will be seeing light at all times during the procedure should help you relax.

It is important not to move during the procedure and to speak as little as possible. However, you must not hesitate to inform the surgeon or the nurse if you feel unwell, feel the urge to cough or need to move for any reason.

During the procedure, you will hear the ophthalmologist give instructions to the nurses and provide you with updates on how things are going. You will also hear the **typical hum** of the ultrasound machine used to remove the crystalline lens.



Contrary to popular belief, phacorefractive surgery is **not performed with a laser**. The technique used for most phacorefractive surgeries nowadays is **phacoemulsification** (derived from the Greek *phakos*, meaning *lens*, and the Latin *emulsificar*, meaning to *transform into milk*).

During the procedure, a **tiny incision** will be performed along the edge of the cornea. This will allow the introduction of a microscopic probe in the eye. This probe emits **ultrasonic waves** that break down the crystalline lens into minute particles. These are then aspirated out of the eye by means of a vacuum system.

The natural crystalline lens thus removed is then replaced with a **foldable intraocular lens**.

Generally, this method necessitates no stitches.

N. B. The steps of the procedure can vary from one surgeon to the next or be changed depending on the eye to be operated on.

7.1 Disinfection and cleaning

The eyelids and the eye are cleaned and disinfected with an antiseptic solution.

Before the surgical procedure can begin, an **eyelid retractor** will be installed. It will serve to hold your eye open during the surgery.

The eye will be irrigated frequently to prevent excessive dehydration during the surgery.

7.2 Anaesthesia

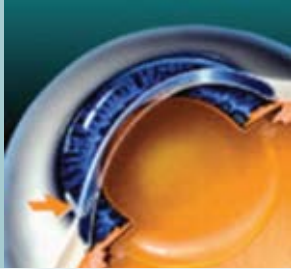
Normally, no injection (needle) is necessary as the eye is **anaesthetized with a gel**. The ophthalmologist could, however, decide to resort to an injection if deeper anaesthesia is needed or if your eye must be completely immobilized to facilitate surgery.

7.3 Limbic relaxing incision

If you have astigmatism, the surgeon will make one or two arched incisions along the edge of the cornea in order to correct the problem in part or fully.

N. B. Toric intraocular lenses are available.

They are recommended for the correction of **high astigmatism**.



7.4 Phacoemulsification incision

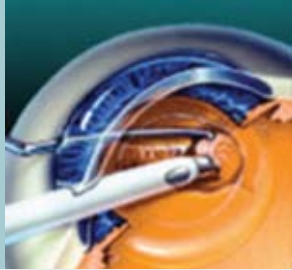
A tiny incision about 3 mm long will be performed along the edge of the cornea, generally on the temporal side (side close to the ear). This incision serves as the entryway for the phacoemulsification probe and the foldable lens.

This **micro-incision** requires no stitches. It will **seal itself** after the procedure.

7.5 Capsulorhexis

During the capsulorhexis, the ophthalmologist will cut a circular opening in the front wall of the capsule in order to expose the crystalline lens that is inside. This delicate step of the procedure requires a certain amount of dexterity on the part of the surgeon and tremendous cooperation on yours. You will need to **avoid doing any excessive movements throughout the procedure.**

An intact capsule will allow seating the intraocular lens properly inside the capsular bag.

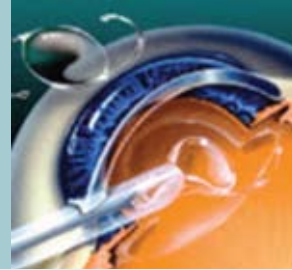


7.6 Phacoemulsification

The microscopic probe of the phacoemulsification machine is introduced through the incision. This probe emits ultrasonic waves that break down the crystalline lens into particles. These are then irrigated and aspirated out of the eye.

Fragmentation of the crystalline lens may take more time or require more energy in the presence of the hardened nucleus of a dense, mature cataract.

It is normal to experience a **temporary loss of sight**. Do not be alarmed, your vision will return immediately once the artificial lens is implanted.



7.7 Implantation of the foldable intraocular lens

The surgeon will proceed to implant the intraocular lens by folding it in two and inserting it through the incision. Once the lens is in the capsular bag, it unfolds and settles into its permanent position inside the eye.

The incision will close by itself like a flapper valve. In rare cases, the ophthalmologist may add a stitch, if necessary.

Once the procedure is completed, you will be placed in a recovery room to rest. Unless you have a particular condition, there will be **no bandage or eyecup covering the eye operated on**. Although your vision will be blurred in the first few hours following surgery, you will be able to use the eye operated on immediately after the procedure.

You will be given a kit containing medication eye drops, sample bottles of artificial tears, eyecups for sleeping, and a pair of sunglasses. The nurse will explain all that you will need to do and will provide you with a checklist to remind you.

You will be able to leave the clinic as soon as you feel comfortable doing so. **You will need to arrange to have someone take you home** as you will be in no condition to drive.

You will then need to make time for follow-up visits at 24 hours, 1 week and 1 month after the surgery. In some cases, a check-up will also be slated at a 3-month interval. **The first visits will be to the IRIS Ophthalmology Clinic**, while the following ones could be to a designated optometrist close to your home.

N. B. In case of emergency, an on-call ophthalmologist will be reachable by pager.

8.1 Post-operative instructions

Do not plan any important activity after the surgery. You will need to **rest** for a few hours.

Avoid rubbing your eye or blinking vigorously during the first two weeks.

During the first 3 days, you will need to **wear an eyecup at night over the eye operated on**. Do not put a bandage under the cup.

During the first 2 weeks, **avoid lifting anything heavier than 10 pounds** to prevent any accident.

There is no risk in bending down after the procedure.

Use appropriate safety goggles if you perform an activity that exposes your eyes to possible injury.

Remember that more accidents happen at home than at work (e.g., sports, biking, gardening, hiking, home repair, etc.).

There is no risk in exposing yourself to the sun after the procedure. However, you will be more sensitive to light during the 4 first weeks. You should wear sunglasses with an adequate UV filter when outdoors.

8.1.1 Eye drops

After surgery, you will have to instil different types of medication in the operated eye(s) such as **antibiotic** and **anti-inflammatory** drops.

The IRIS Ophthalmology Clinic will provide you with these bottles of medication at no additional charge.

The order in which you instil the eye drops is not important.

The dosage and duration of the treatment will be tailored to your condition by the ophthalmologist and/or the optometrist at the post-operative follow-ups.

Artificial tears can also be used if dryness occurs. If needed, you will be able to purchase these artificial tears over the counter at any pharmacy.

If you use medicated eye drops to treat another ocular condition (e.g., glaucoma), you should continue to do so as directed by your doctor, **along with the medicated eye drops** prescribed for the surgery.

8.1.2 Bathing/showering

You can take a bath or shower already the day after the surgery. Keep your eyes shut and avoid having the water flow directly on your face during the first week. Wash your hair by letting the soap and water flow off the back of your head.

During the first week, you will be able to wash your face but you will need to **avoid splashing too much water into your eye**. Use a clean soft towel to pat yourself dry.

Clean any debris stuck to your eyelashes with a clean washcloth dipped in warm/hot water.

Men can shave on the next day.

8.1.3 Make-up

Creams and lotions can be applied already on the day after the surgery.

However, it is important to avoid the contour of the eye and the eyelids during the first week. **Mascara and eyeliner, therefore, are contraindicated during this period.**

Use new water-soluble products to avoid infection and excessive rubbing of the eyes when removing make-up.

8.1.4 Work

You will be able to return to work already the day after surgery or as soon as your vision seems good enough for you to perform your usual tasks. Indeed, there is no danger in using your eyes to read, watch television or to work at a computer.

However, if you work in a environment that is dusty and/or that poses a risk of infection or injury for your eyes, it would be preferable to wait 1 week after surgery before resuming your activities. If necessary, the clinic could provide you with a letter to justify your absence.

Always wear appropriate safety goggles for any risky activity.

8.1.5 Driving

During your post-operative visits, the ophthalmologist will tell you when you have reached a visual acuity in accordance with the requirements of the Ministry of Transportation to drive a vehicle for recreational purposes.

Avoid driving at night or in an unfamiliar environment as long as both your eyes have not been operated on. Your depth perception and the quality of your vision could be reduced temporarily.

Depending on the type of intraocular lens implanted, you might perceive halos or stretching around lights at night, primarily during the first month. Depending on lighting conditions, your sensitivity to contrasts might also be diminished slightly.

8.1.6 Sports/leisure

Most activities of moderate intensity can already be resumed the day after surgery (e.g., walking, biking, shopping, shows, etc.).

However, it is recommended waiting a week or two for more intense activities or for those that require lifting weights in excess of 10 pounds (e.g., jogging, bowling, racquet sports, construction, sexual relations, etc.).

Bathing in a pool, lake or hot tub is contraindicated during the first week.

8.1.7 Diet

With the exception of any previously imposed by your doctor, there are no post-surgery diet restrictions.

However, you should try to follow a diet rich in fibre and liquids to avoid constipation.

N. B. With the use of anti-inflammatory eye drops, you might notice an unpleasant **metallic taste** in the back of your throat. This occurs when the medication passes through the tear ducts, to the nose and then down the throat. To avoid this unpleasant taste, keep your eyes shut for 20 seconds after instilling the eye drops and apply a light pressure with your finger to the corner of the eye near the nose.

8.2 Stabilization of vision

As you wait for your vision to stabilize, your eyeglass correction might not be right for you anymore. Your comfort will grow once your second eye is operated on. In the meantime, you will have to either put up with your old correction or function without glasses with the eye operated on.

Your correction will need to be modified by your optometrist about 4 weeks after the procedure. In some cases, the ophthalmologist and/or the optometrist could recommend waiting 8 to 12 weeks.

8.3 Harboring realistic expectations

It is important to understand that, for various reasons, **the outcome of the surgery cannot be guaranteed.**

20/20 vision? It depends on the health of your eyes!

Your vision may not be perfect after the replacement of your natural crystalline lens. **It may not be possible to correct this deficiency with glasses** if, for example, you present any of the following anomalies:

- > tear film deficiency;
- > anomaly of the cornea;
- > irregularities in the vitreous;

- > anomaly of the macula, retina or optic nerve;
- > amblyopia (lazy eye) or strabismus (turned eye).

N. B. When a cataract is present, the surgeon may not be able to observe the details of the structures located behind the crystalline lens. Consequently, a pre-existing anomaly may be discovered only once the cataract is removed.

Vision without glasses after surgery

It is not uncommon for glasses to be necessary after surgery to perform certain tasks under certain conditions even if you choose to correct your vision defect with the lens most appropriate for you.

At times, the post-operative outcome does not meet the target calculated prior to surgery. Certain conditions can diminish the reliability of the measurements and increase the likelihood of having to wear glasses after surgery:

- > presence of high astigmatism;
- > presence of a very mature cataract or of a posterior subcapsular cataract;
- > an eyeball that is abnormally long (severe myopia) or abnormally short (high hyperopia);

- > an irregular or diseased cornea;
- > a cornea previously operated on to correct myopia, hyperopia or astigmatism;
- > a disease of the retina.

Correction of your vision after surgery

Various vision correction options can be considered to enhance the outcome of the surgery. The solution chosen will depend on the residual refractive error to be corrected:

- > occasional wearing of glasses and/or contact lenses.
 - The optical correction is not covered under the surgery fees.
- > correction by laser photorefractive surgery (LASIK or PRK).
 - A minimum 3-month delay must be respected.
 - The pre-operative measurements of your cornea must demonstrate that they meet the safety criteria for this type of procedure.
- > correction by explanting and replacing the intraocular lens.
 - The solution carries risks different from those associated with the first procedure and is **considered only in very rare cases**.

- The risks of this procedure are even greater if a YAG laser capsulotomy has previously been performed.
- Fees may apply.

In certain cases, vision can take several weeks, if not several months, to stabilize. Consequently, you will need to wait patiently the time that it takes before a second surgical procedure can be planned, **if deemed necessary and safe by the ophthalmologist**.

8.4 Posterior capsule opacification or “after-cataracts”

For the purpose of supporting the intraocular lens, the crystalline lens capsule is preserved. Following a natural scarring process, the capsule at times loses its transparency. This phenomenon can arise even several years after surgery.

This capsule opacification comes with the following symptoms:

- > progressive decline in quality of vision;
- > increased perception of glare or sensitivity to light;
- > increased perception of halos or stretching around lights at night.

A minor procedure called **YAG laser posterior capsulotomy** allows treating the opacity of the posterior capsule when it bothers vision significantly. The ophthalmologist will generally wait a minimum of 3 months after replacement of the crystalline lens before performing a capsulotomy. The risk of complications with this procedure is at a minimum level.

During the procedure, the YAG laser beam is focused on the capsule in order to “drill a hole” in the opacified zone. This opening allows light rays to reach the retina freely, thus eliminating the fog effect.

- > This procedure takes approximately 5 to 10 minutes per eye.
- > It is performed in the ophthalmologist’s examination room and necessitates **no incision** on or in the eyeball;
- > As the pupil must be dilated for this procedure, **you will need to arrange to have someone take you home** as you will be in no condition to drive;
- > Generally, no medication is prescribed after the procedure.



Although eyesight recovery is encouraging in the days following surgery, **healing will take 4 to 8 weeks to complete.**

9.1 Normal symptoms

The symptoms below are common immediately after surgery. Most of these are tolerable and diminish in intensity over the following weeks. These symptoms should not be cause for concern, **unless they worsen over time:**

- > cloudy vision;
- > slight sensitivity to light;
- > sensation of foreign substance or grain of sand in the eye;
- > sensation of dry eyes;
- > tearing (watery eyes);
- > moderate reddening of white of eye;
 - On occasion, a much darker red blood spot will appear on the white of the eye. It is the result of a blood vessel rupturing during the procedure. This condition is no more than a benign hematoma (bruise) and will re-absorb within a few weeks.

- > burning when eye drops are applied;
- > slightly sagging eyelid, eye appears smaller;
- > pupil of a different size or shape compared with other eye;
- > perception of spots swimming in the visual field (eye floaters);
- > positive dysphotopsia (streaks or arcs of light, glare, impression that the intraocular lens vibrates when the eye moves);
- > negative dysphotopsia (perception of shadows or lack of vision in the temporal peripheral visual field);

Certain symptoms can be associated with the type of intraocular lens implanted (e.g., multifocal or monofocal lenses using the monovision method):

- > perception of halos around lights;
- > slight reduction in sensitivity to contrasts.

It is not always possible to correct these symptoms through a correction in glasses and/or contact lenses. Fortunately, the **annoyance caused by these symptoms tends to diminish over time (3 to 6 months) thanks to the phenomenon of neuronal adaptation.** However, this adaptive capacity varies from person to person.

9.2 Alarming symptoms

Immediately contact the clinic or surgeon on call if you experience:

- > significant reddening of the eye;
- > persistent pain;
- > a marked deterioration in your vision;
- > nausea or vomiting;
- > bright flashes in the absence of ambient light;
- > any significant change that is not an improvement.

9.3 Complications

All surgical procedures carry a minimum level of risk of complications. Phacorefractive surgery is no exception to the rule.

By definition, a complication is an **unforeseeable event** that occurs during or after surgery and that **can lead to a temporary or permanent drop in the quality of vision.** This deterioration might not be correctable with glasses and/or contact lenses.

Phacorefractive surgery is one of the most frequently performed procedures in North America. In the United States alone, more than 1.5 million are practised each year. In **95%** of the cases, there are **no complications.**

The rate of complications varies as a function of the ocular and systemic health of the person undergoing surgery. The associated loss of visual quality depends on the gravity of the complication. In most cases, it is limited to a minor drop in visual acuity with no loss of functionality. Cases of blindness resulting from a major complication are extremely rare, but we cannot exclude this possibility.

The ophthalmologist will review with you all the risks and benefits associated with the surgery. However, it is not possible to list all the events that could occur during or after the procedure. **A thorough assessment of your oculo-visual condition and the analysis of medical history** will allow the ophthalmologist to identify the most probable risks you face and to estimate the potential improvement in vision you stand to gain with surgery.

9.3.1 Minor complications and side-effects

Minor complications occur in about **5% of cases** and generally do not result in a permanent or significant drop in the quality of vision. Some of these symptoms may fade gradually with healing or under the effect of neuronal adaptation. In rare cases, they can become permanent.

The symptoms associated with these minor complications can generally be relieved through:

- > the use of artificial tears;
- > wearing glasses (e.g., tinted lenses, optical correction);

- > a change in dosage of the medication eye drops;
- > wearing a contact lens (therapeutic or bandage);
- > undergoing a second procedure (e.g., laser surgery, capsulotomy, vitrectomy, stitch, etc.).

Certain fees may apply.

These complications or side effects include, **but are not limited to**, the following:

- > a loss of physiological accommodation;
- > an over/under-correction or residual astigmatism;
- > dry eyes;

The problem of dry eyes is not unlike that of dry skin. **It is generally a chronic condition that requires the regular use of lubricants. It is a situation that lasts a lifetime!**

- > dysphotopsia (perception of glare, halos, flashes or dark shadows);
- > perception of eye floaters;
- > a posterior vitreous detachment;
- > double vision or an imbalance in binocular vision;
- > epithelial erosion;
- > a transient corneal oedema (swelling);
- > a transitory increase in intraocular pressure;

N. B. In some cases, surgery can reveal glaucoma that went undetected previously. This condition could require referral to a medical specialist in the public sector.

- > an incision leak;
- > uveitis (inflammation of the anterior segment of the eye);

An inflammation “rebound” may be observed a few days or weeks after stopping the use of medicated eye drops. If so, it may be necessary to resume the use of these.

- > a transient macular oedema;
- > rupture of the posterior capsule;

If the posterior capsule ruptures during the procedure, the surgeon may have to change the power and the type of the intraocular lens implant.

- > a vitreous leak;
- > iris or pupil trauma;
- > a sagging of the eyelid.

9.3.2 Major complications

The likelihood of a major complication varies from 0.02% (2 cases out of 10,000) to 1% of cases. These complications are considered very serious and **must be managed swiftly and effectively in order to avoid or limit irreversible vision damage.**

This type of complication generally occurs on account of a predisposition owing to poor health or an irregularity of the structure of the eye

These complications include, **but are not limited to** the following:

- > endophthalmitis (infection of the intraocular structures);
- > a detachment of the retina;
- > a persistent macular oedema;
- > a pre-macular membrane;
- > a persistent corneal oedema;
- > nucleus drop in the vitreous;
- > luxation (dislocation) of the intraocular lens.

9.3.3 Extreme or severe complications

Extreme complications are extremely rare, occurring in about 0.01% of cases (1 case out of 10,000). Unfortunately, however, they are associated with a very high rate of ocular morbidity, which can result in a dramatic loss of vision if not complete blindness.

These complications include, but are not limited to, the following:

- > expulsive haemorrhage;
- > massive choroidal detachment;
- > optic nerve trauma.

Certain conditions may necessitate emergency hospitalization or a consultation with and a surgical procedure by another specialist.

Certain fees may apply.

9.4 Your safety is our top priority

The first mandate of the IRIS Ophthalmology Clinic is to **respect and exceed all safety surgical standards.**

We are providing to you the following:

- > a team of certified ophthalmologists, optometrists and opticians;
- > an experienced nursing staff that applies the same rigorous sterilization techniques use in large hospitals;
- > a nursing staff fully trained in cardiopulmonary resuscitation (CPR);
- > an operating room equipped with a positive-pressure, laminar airflow purification system to ensure a sterile surgical environment;
- > surgical instruments coupled to an uninterruptible power supply (UPS) back-up in the event of a power outage;
- > diagnostic and surgical instruments that make it possible to optimize the refractive outcome of the surgery (e.g., the IOL Master[®] optical biometer and the Mel-80[®] laser by Carl Zeiss Meditec);
- > the latest-generation foldable intraocular lenses;
- > all lenses used at the IRIS Ophthalmology Clinic are certified by national agencies (e.g., Health Canada and the U.S. Food and Drug Administration (FDA));
- > a quiet comfortable environment.



Appendix 1

Consent Form

Please read the present document carefully before signing it.

I hereby give my consent to the Phacorefractive Surgery and I acknowledge that I understand the following information:

The Phacorefractive Surgery consists in replacing the natural crystalline lens in the eye with an artificial intraocular lens.

- > With a clear natural lens, the surgery is performed with the sole purpose of modifying the optical power of the eye in order to reduce dependence on corrective glasses;
- > With a clouding natural lens (cataract), the surgery is performed to reduce the dependence on corrective glasses and to improve vision. The surgical procedure doesn't improve the vision loss due to cataract and won't have any impact on any visual loss secondary to any other cause.

I recognize that I have been informed of the different types of intraocular lenses available to correct my vision. I have been explained the pros and the cons of each of the alternatives.

After discussion with my ophthalmologist, I chose a:

- monofocal foldable intraocular lens;
- toric monofocal foldable intraocular lens (astigmatism correction);
- multifocal foldable intraocular lens.

The Phacorefractive Surgery has been done for several decades now and is among the most commonly performed surgical procedures in the world.

I understand that:

1. the surgery usually lasts for less than 30 minutes;
2. eyes will be anesthetized with eye drops;
3. an incision is made on the cornea (or the sclera) to enter into the eye;
4. the natural lens is broken into small pieces (emulsified) and aspirated during phacoemulsification with an ultrasonic handpiece. In rare cases, the natural lens can be extracted as a whole;
5. an intraocular lens is inserted to replace the natural lens;
6. stitches may be necessary to close the wound;
7. after the procedure, I may need a dressing or a bandage-lens on each treated eye (low probability);
8. I may need to take pain reliever;
9. I will need to instill eye drops in each treated eye for four (4) weeks or more;
10. I will have to observe some temporary restrictions;
11. I will need to wear a protective eyecup at night for a short period of time;
12. I have to attend post-operative follow-up visits.

If necessary, my astigmatism will be corrected by limbic relaxing incision(s) during the same procedure. It is a separate surgical procedure with the aim to reduce dependence on corrective glasses and distortion. I recognize that I have been informed of the pros and the cons of this technique and I approve its use.

I have been informed that, even though they are rare, **complications can occur during or after the procedure**. A complication can cause a temporary or a permanent reduction in the quality of vision. This reduction could not be corrected with glasses, contact lenses or surgery.

Among the complications, there are, but not limited to: epithelial erosion, corneal edema, rupture of the posterior capsule with vitreous loss in the anterior chamber, intraocular high pressure, persisting uveitis, bleeding, oozing wound, macular edema, pre-macular membrane, endophthalmitis (infection), retinal detachment, loss of lens nucleus into the vitreous cavity, lens displacement, expulsive hemorrhage, massive choroidal detachment, optic nerve trauma, malfunction of a surgical instrument, substance or lens, etc.

Some complications can involve drug dosage adjustment or more frequent visits to the clinic. In rare cases, emergency hospitalization, consultation or intervention by another specialist could be necessary. If so, I will be responsible for assuming all the costs incurred by these events (traveling, accommodations, occupational absenteeism, etc.).

As with any medical or surgical treatment, the results cannot be guaranteed.

I understand that quite often it is necessary to wear glasses to perform some tasks after surgery, even though I chose the most appropriate lens to my condition. If so, I will be responsible for assuming the costs of the optical correction (frame, ophthalmic lenses, and/or contact lenses).

If deemed necessary and safe by the ophthalmologist, a second procedure could be proposed to enhance the outcomes of my Phacorefractive Surgery:

- > YAG Laser Capsulotomy (at no additional costs)
- > Corneal Refractive Laser Surgery (at no additional costs within 2 years).

I am responsible for paying the fees surrounding my Phacorefractive Surgery. These costs include: 1) refractive status; 2) foldable intraocular lens; 3) pharmaceutical products and substances; 4) guarantee of correction, by corneal refractive or intraocular surgery, of residual or anticipated detrimental ametropia. I understand that these services are not covered by the Régie de l'Assurance Maladie du Québec (R.A.M.Q.).

The portion of the surgery that specifically consists in the removal of the cataract is a surgical procedure covered by the R.A.M.Q. I have been informed that this service is available in a hospital environment. I understand that, upon the diagnosis of a cataract, the surgeon fees to extract the cataract are covered by my R.A.M.Q. card.

By signing this Surgical Consent Form, I declare that my consent is given voluntarily and on an informed basis. I acknowledge that I have received all the information relevant to the treatment. I have been informed of the possible risks, benefits and outcomes that can result from the treatment and all my questions have been answered to my satisfaction. I acknowledge that I have been informed that I can reach my doctor or a member of his team at any time to discuss of any new questions I might have or to inform him that I wish to revoke (cancel) my consent regarding my surgical procedure.

Patient name (in capital letters)

Patient signature

Witness signature

Ophthalmologist name (in capital letters)

Ophthalmologist signature

Date of the surgery (YYYY/MM/DD)

Supplement to the surgical consent form

Please read the present document carefully before signing it.

I hereby give my consent to Phacorefractive Surgery and I acknowledge that I have been advised of the various choices of lenses and their distinctive features:

MONOFOCAL INTRAOCULAR LENS

(two eyes for distance vision):

1. I understand that I will need to wear glasses for the majority of intermediate vision tasks (e.g., housework, work on the computer, etc.) and for all tasks in near vision (e.g., reading, sewing, etc.).

MONOFOCAL INTRAOCULAR LENS IN MONOVISION

(one eye for near vision and the other for distance vision):

1. I understand that there is an imbalance between both of my eyes, one will see well in distance vision and the other will see well in near vision.
2. I understand that I might need to wear glasses to equalize both of my eyes in conditions requiring precise vision (e.g., reading small print, etc.).
3. I understand that I might need to wear glasses to equalize both of eyes for long-lasting activities (e.g., driving, etc.).
4. I understand that my perception of depth (3D vision) will be reduced after the surgery. It could however be improved by wearing glasses (thus equalizing both of my eyes).

MULTIFOCAL INTRAOCULAR LENS

(Tecnis MF[®] and AcrySof ReSTOR+3D[®]) :

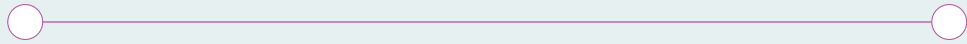
1. I understand that I will see halos around lights at night. I understand that wearing glasses will not eliminate them at any time.
2. I understand that my viewing distance with a multifocal lens will be approximately 32 to 39 cm (12 to 15 inches). I agree that glasses may be necessary for tasks that require good vision at a shorter or longer distant than those mentioned.
3. I understand that my intermediate vision will not be adequate and it is more likely that I will need glasses for activities at intermediate distance (e.g., computer work).
4. I have been informed that I might need to use task lighting to facilitate reading.

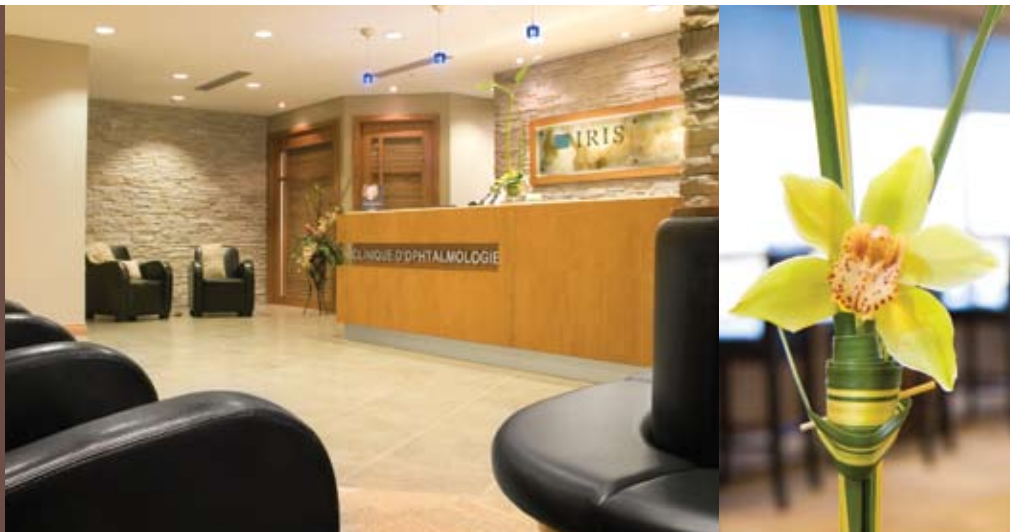
Patient's name in capital letters

Patient's signature

Witness' signature

Date of Surgery (YYYY/MM/DD)





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