A PATIENT GUIDE TO EYE SURGERY

RISKS ASSOCIATED WITH SURGERY

CATARACT SURGERY

There is a one in 1000 or less than one percent chance that a cataract surgery patient will experience complications that lead to blindness after surgery.

VITRECTOMY SURGERY

For patients with healthy eyes, the risk of becoming blind after undergoing retinal surgery is less than one percent. There is also a 10% risk that patients may develop retinal detachment due to retinal surgery. However, patients with low ocular health have a higher risk of developing blindness and retinal detachment post-retinal surgery.

TYPES OF SURGICAL COMPLICATIONS

CATARACT SURGERY

• DROPPED LENS
  A dropped lens or a lens that has escaped the lens capsule can be difficult to fully remove during cataract surgery. As a result, the remaining pieces of the dropped lens will require removal via a vitrectomy surgery after cataract surgery is complete.

• GLAUCOMA
  Due to the increased intraocular pressure experienced after surgery, the chance of developing glaucoma increases after cataract surgery. Therefore, preventative treatment in the form of topical medication, drops and even surgery may be required to stop the onset of glaucoma within the patient.

• CYSTOID MACULAR EDEMA
  There can be the development of swelling in the patient's central retina or macula after cataract surgery. Additional drops, intraocular injections or surgery may be used to treat the macular edema.

VITRECTOMY SURGERY

Typical complications due to vitrectomy surgery include retinal detachments, ocular bleeding, infection and glaucoma. In specific, glaucoma can be treated using drops and surgical intervention. 2
Additional complications of vitrectomy surgery may include:
• Blindness via glaucoma or infection.
• Abnormal positioning of the eye and double vision.
• Cataracts or clouded lenses.
• Failure to recover original vision.

VISIBLE DIFFICULTIES POST-SURGERY

CATARACT SURGERY

The patient will temporarily experience visual disturbances immediately after cataract surgery. Overtime though, the eyes tend to heal and cause such visual disturbances to fade away. However, any persistent symptoms such as glare, double vision, IOL power variation or the development of a secondary membrane will require additional medical and or surgical intervention to remove. Below is a more detailed description of these post-surgical symptoms.

• **GLARE**
  A glare, caused by direct or reflected light usually causes a discomfort after cataract surgery that disappears with time. If the patient’s glare severely disables their vision by reducing contrast long-term though, they should seek treatment from their ophthalmologist post-surgery.

• **DOUBLE VISION**
  Also known as “ghosting”, double vision arises when the patient’s intraocular lens implant shifts position within the eye. Depending on the effect and severity of the double vision, the patient may need to have their IOL repositioned to eliminate their double vision.

• **IOL POWER VARIATION**
  Although the refractive power of a patient’s intraocular lens implant is decided based on complex scientific programs, there is still the chance that they could have errors. As a result, your intraocular lens implant may need to be replaced after cataract surgery.

• **SECONDARY MEMBRANE FORMATION**
  Of all patients who undergo cataract surgery, 15% develop a secondary membrane which covers the surface of the intraocular implant. A YAG laser treatment though can break apart the secondary membrane and clear the patient’s vision. 3
VITRECTOMY SURGERY

The patient's eyes may take anywhere from 6 months to two years to completely heal after vitrectomy surgery. As a result of the long healing process, patients will have to get used to specific side effects which typically disappear with time. These ocular side effects include:

• **SORE EYES**
  Eye soreness can be minimized by taking painkillers post-vitrectomy surgery.

• **DROOPY EYELIDS**
  Patients with severe and long-term droopy eyelids should seek their ophthalmologist for surgical intervention.

• **DRY EYES**
  Dry eyes can last up to two months after vitrectomy surgery. During this time, patients can use artificial tears to alleviate any discomfort caused by dry eyes.

• **WATERY EYES**
  Patients can expect their eyes to be watery for up to two months after undergoing vitrectomy surgery.

• **DOUBLE AND BLURRED VISION**
  Patients can experience double and/or blurred vision anywhere from four to six months after vitrectomy surgery. Due to this, please ensure that your lifestyle can accommodate this temporary visual impairment.

• **LIGHT SENSITIVITY**
  Light sensitivity occurs between four to six months after vitrectomy surgery. To avoid discomfort due to light sensitivity, patients are advised to use UV protected or polarized sunglasses, or photochromic lenses.

• **OCULAR IRRITATION**
  Stitches in the eye after vitrectomy surgery can cause ocular irritation for up to two months. After this time has passed however, the stitches will have dissolved and ocular irritation should fade away.
SURGERY WAIT TIMES

CATARACT SURGERY

The current wait time for undergoing cataract surgery in Ontario is 2-6 months. Please keep in mind that wait times are decided on a variety of factors including the urgency of the case, the complexity of the condition, operating room availability and surgeon availability.

VITRECTOMY SURGERY

Patients who require retinal treatment via vitrectomy surgery can expect to receive a shorter wait time of 1-3 months. This is because a retinal disease is a medical emergency which needs rapid surgical intervention in order to stabilize and preserve a patient’s eyesight. Again, please understand that wait times are finalized based on the urgency of the case, the complexity of the condition, operating room availability and surgeon availability.

PATIENT OCULAR CONDITION AFTER SURGERY

CATARACT SURGERY

Patients who have undergone cataract surgery will have at the least, one week of blurry vision after cataract surgery. They can also expect to recover their full vision within a month and are responsible for changing their glasses in the six weeks following cataract surgery.

VITRECTOMY SURGERY

Recovery time for a patient’s vision varies greatly depending on the complexity of their condition. However, it typically takes six months for a patient’s vision to stabilize following vitrectomy surgery. Please remember though, that your vision may not improve after healing due to the nature of the ocular disease.

PTERYGIUM SURGERY

Pterygium is a fibrovascular tissue that extends from the sclera and grows onto the surface of the cornea. It tends to occur more often in individuals Exposed to higher levels of UV light, wind and tropical weather. This tissue can sometimes become inflamed, requiring topical anti-inflammatories. More often, the pterygium will disrupt the normal tear film that bathes the surface of our eyes causing a foreign body sensation. Over years, this tissue may grow and extend onto the central cornea, blocking vision and causing refractive errors. The progression and growth of a pterygium is highly variable, most patients will not require surgical intervention in their lifetime, but some may.

The procedure takes place in an operating room under local anaesthesia which means that you are awake for surgery and takes approximately half and hour. However, you will receive sedation to make the experience more comfortable. Following surgical intervention some patients do experience pain which can be controlled by oral medications, pain killers such as Tylenol or equivalent medications.
Pterygium surgery is not considered an intraocular surgery, although the surgery occurs on the surface of the eyeball (sclera and cornea). The main risk of pterygium surgery is re-growth or recurrence of the pterygium. If the pterygium is simply cut out, recurrence can be as high as 50-60%. Often a graft is used once the pterygium is excised to cover the bare sclera and to decrease the occurrence of pterygium re-growth. This graft is conjunctiva, which lines the surface of the sclera, from a non sun exposed portion of the eyeball. Even though grafts are well integrated onto the surface of the globe, it is important to note a small risk exists that the healing may be incomplete. Although uncommon, especially if sutures are used to fixate the graft, this will increase the risk of infection and recurrence.

**Are there any risks to any of the above options?**

Yes, there are risks with every option. If the pterygium is stable then usually it can be followed closely for many months and years. However, if the pterygium starts to grow toward the central vision or it is starts to affect the curvature of the eye then there is slightly increased risk that there will be some scarring even if the pterygium is successfully removed especially if it goes over the central vision area. As with surgery of the eye there are always risks associated including infection and risk to local structures - these are better explained after consultation with your eye care professional.

**What to expect after a pterygium surgery has been performed?**

The patient has a patch on the eye for the first 48 hours to ensure comfort and to also help with the healing of the surface of the cornea. After that the patient will be on eye drops four times day for approximately one month and as well ointment may be applied at night as well to smooth the surface and to allow for healing.

Absorbable, sutures are used to fix the graft onto the site where the pterygium was removed, and this may require six to eight weeks to heal fully. During this time there may be a sensation of slight irritation which rapidly decreases after the first week of surgery; however, it may occur up to eight weeks after the surgery. These sutures will dissolve on their own and usually dissolve by the six week mark.

**SURGICAL PRE-TREATMENT AND POST-TREATMENT**

**PRE-TREATMENT**

Before undergoing surgery, patients will walk through a variety of clinical steps which ensure the best possible preparation for their treatment. This includes attending regular appointments with your surgeon and surgical counselors, taking pre-operative assessments, undergoing physical examinations and filing out consent forms. Patients are also responsible for submitting any payment for treatment not covered by OHIP before undergoing surgery.
POST-TREATMENT

The patient’s ocular condition will be closely monitored for up to a month following cataract or vitrectomy surgery. The number and frequency of their surgical follow up visits are dependent on the complexity of their ocular condition. Please keep in mind that the times for surgical follow up visits are decided based on several factors including variations in intraocular pressure during the day, the type of post-surgical testing required, and the availability of surgeons and surgical associates. As a result, your surgical follow up visits can be scheduled anywhere between the early morning and the late afternoon. You must attend these appointments as scheduled.

POST-SURGICAL MEDICAL EMERGENCIES

REGULAR POST-SURGICAL SYMPTOMS

Ocular pains, red eyes, tearing and blurred vision are normal side effects of undergoing cataract or vitrectomy surgery. Patients will be informed of any additional post-surgical symptoms by their surgical counselor.

IRREGULAR POST-SURGICAL SYMPTOMS

Patients who experience the immediate loss of vision, vomiting sensations, white ocular discharge or sudden ocular trauma must contact the OCC via the emergency pager number given to them during their surgical counseling appointment. Patients who use this number will receive a call-back within an hour of their call. Patients who use the emergency pager number must either enter their phone number followed by # after the tone, or leave a voice mail followed by #.

Please remember that these emergency medical services are available for only seven days after a patient undergoes surgery, and that they should not be used for non-emergency purposes. Usage of the two emergency phone lines for non-emergencies will result in a fine of $100 per call. Once the seven days has passed, please call our office at (905)-212-9482 between 8:00 am and 5:00 pm for all medical emergencies.

FAQ (FREQUENTLY ASKED QUESTIONS)

PRE-SURGICAL QUESTIONS

1. Do I need pre-surgical testing?

Yes. The pre-surgical testing required for surgery will begin with a general health assessment by an independent physician at least one month prior to your surgery date. We require your medical history and complete physical test results within a month of your surgery date as well. This pre-surgical testing may be followed by mandatory diagnostic testing depending on your medical condition.
2. How long will the pre-surgical testing take?
One to three hours. But the time needed to complete pre-surgical testing can vary from office to office. Please make sure that you adjust your schedule according to the pre-surgical testing time of the medical office you are going to.

3. Can I wear my contact lenses around the time of my surgery?
No. A patient must remove their contact lenses 48 hours prior to surgery.

4. Is it bad to drink alcohol in the days before my surgery?
Yes. Alcohol can dry out your eyes and promote ocular bleeding. As a result, please avoid alcoholic beverages in the seven days prior to surgery.

5. What should I do if I get a cold, flu or infection in the days before surgery?
Contact your surgeon immediately. They will inform you whether your cold, flu or infection will change your surgery date.

SURGERY DAY QUESTIONS

1. Should I take my medications on the day of surgery?
Yes. Please take all regular medications on surgery day with small sips of water unless you are instructed otherwise by your surgeon. Diabetic patients should follow instructions provided by their surgical coordinator regarding their medication. Please refer to the MEDICATION USE section of this booklet for more information.

2. If I am on oxygen, should I bring it with me on the day of surgery?
Yes. Please bring enough oxygen to support more than 8-10 hours of breathing on your surgery day.

POST-SURGICAL QUESTIONS

1. When will my vision be better?
Your vision will be blurry following vitrectomy or cataract surgery. Cataract surgery patients should expect their vision to recover within a month, while vitrectomy surgery patients may have to wait for up to six months. Once you have healed, the quality of your vision may or may not improve depending on the nature of your ocular disease.

2. Can I drive home after surgery?
No. You will be asked to provide the contact information of your designated driver by the recovery room nurse prior to undergoing surgery.
3. When can I go back to driving?

If the vision in your unaffected eye is better than 20/40, you can resume driving the following day after surgery. Please consult your surgeon on this situation if you license has been temporarily suspended.

4. Can I take a shower?

Yes. Patients can take showers post-surgery with caution by tilting their head backwards to avoid any water from entering their affected eye.

5. How soon can I return to work after surgery?

This depends on your occupation. Patients typically return to work between two to six weeks after undergoing surgery. Please speak with your surgeon to determine the exact amount of time off you will require from work.

6. Will I need my glasses after surgery?

No. Since your prescription will change after surgery, you will no longer need to use your old glasses. Cataract surgery patients are expected to change their glass prescriptions a month after surgery, while vitrectomy surgery patients may have to wait six months before visiting their optometrist.

7. Why is my eye so bloodshot?

Bloodshot eyes are a common symptom of cataract and vitrectomy surgery. Patients who underwent vitrectomy surgery may have a blood shot eye for up to three months.

8. Is it normal to have bloody tears?

Yes. Bloody tears are a normal symptom of vitrectomy surgery and can last up to three weeks after surgery.

9. Why do I need to wear the eye shield at bedtime?

The eye shield will protect your eye from being bumped, poked or rubbed during sleep.

10. How long to use your drops?

Please refer to your instruction booklet. You will be advised by your surgical counselor if you need to follow a different set of instructions.

11. What pain reducing medications should I take pain post-operatively?

Tylenol and other equivalent pain-killers are safe to use. However, patients must avoid blood thinning pain-killers such as Aspirin.

12. Can I exercise and do aerobics after surgery?
No. Avoid taking part in any strenuous exercises for at least two weeks after surgery. These exercises include lifting weights, contact sports and high impact exercises such as aerobics. Walking and mild cardiovascular exercise however, is allowed. Please consult your surgeon regarding the safety of specific exercises.

13. Can I bend over or do any heavy lifting?

Yes and no. Bending over is safe as long as you do not lift anything above ten pounds for the first two weeks after surgery.

14. Can I go swimming?

No. Cataract surgery patients will need to avoid swimming at least 1-2 months after surgery, while vitrectomy surgery patients will require a wait of 2-4 months.

15. Can I get a perm or colour my hair?

Yes. Please remember however, that chemicals used to treat hair can irritate the eye and cause ocular pain.

16. Can I have sex?

Yes.

PLEASE NOTE- ALL THE INFORMATION PROVIDED IN THIS PAMPHLET IS MEANT TO EDUCATE THE PATIENT. IT SHOULD NOT BE INTERPRETED AS MEDICAL ADVICE TO TREAT A PATIENT’S CONDITION. PLEASE CONSULT YOUR SURGICAL COORDINATOR DIRECTLY FOR ANY CONCERNS AND QUESTIONS REGARDING YOUR MEDICAL TREATMENT.