

CATARACT SURGERY AND/OR IMPLANTATION OF AN INTRAOCULAR LENS

This information is given to you so that you can prepare for the discussion with your eye surgeon. This document will help you understand the risks and benefits of cataract surgery. It will also help you decide the type of replacement lens you want. Eyeglasses or contact lenses are usually required for best vision after cataract surgery.

WHAT IS A CATARACT?

The lens in the eye can become cloudy and hard, a condition known as a cataract. Cataracts develop from normal aging, from an eye injury or if you have taken medications known as steroids. Cataracts may cause blurred vision, dulled vision, sensitivity to light and glare, and/or ghost images. If the cataract changes vision so much that it interferes with your daily life, the cataract may need to be removed. Surgery is the only way to remove a cataract. You can decide not to have the cataract removed. If you don't have surgery your vision loss from the cataract will continue to get worse.

HOW WILL REMOVING THE CATARACT AFFECT MY VISION?

The goal of cataract surgery is to correct the decreased vision that was caused by the cataract. During the surgery, the ophthalmologist(eye surgeon) removes the cataract and puts in a new artificial lens called an intraocular lens or IOL. The IOL will remain in the eye permanently. Cataract surgery will not correct other causes of decreased vision, such as glaucoma, diabetes, or age related macular degeneration. Most people still need to wear glasses or contact lenses after cataract surgery for either near and/or distance vision as well as astigmatism.

EXAMINATIONS PRIOR TO SURGERY

If you agree to have the surgery, you will undergo a complete eye examination by your surgeon. This may include an examination to determine your eyeglass prescription(refraction), measurement of your vision with and without glasses(visual acuity), measurement of the pressure inside your eye(tonometry), measurement of the curvature of your cornea(keratometry), ultrasonic measurement of the length of your eye(A-scan),intraocular lens calculation(biometry)to determine the best estimate of the proper power of the implanted IOL, microscopic examination of the front part of your eye(slitted lamp examination), and examination of the retina of your eye with your pupils dilated.

NEED TO STOP WEARING CONTACT LENSES PRIOR TO SURGERY

If you wear contact lenses, you must leave them out of your eyes for a period of time before your preoperative measurements. This is done because the contact lens rests on the cornea and distorts its shape, which can affect the accuracy of the doctors measurements for your intraocular lens power. Stop wearing both soft and gas permeable lenses for at least three weeks. If you wear rigid contacts, your vision will usually vary for a while as your corneas change shape. Although the cornea usually returns to its natural state within three weeks, this process may take longer, and you will need to remain contact lens free until your vision and cornea stabilize.

MORE INFORMATION ABOUT MEASURING YOUR IOL

While the method used to calculate the power of the IOL is very accurate in most patients, the final result may be different from what you and your surgeon planned. As the eye heals, the IOL can shift very slightly toward the front or the back of the eye. the amount of this shift is not the same in everyone, and it may cause different vision than predicted. If the eye/s visual power after surgery is considerably different than what was planned, surgical replacement of the IOL might be considered. It is usually possible to replace the IOL and improve the situation. Patients who are highly nearsighted or highly farsighted have the greatest risk of differences between planned and actual outcomes. Patients who have had LASIK or other refractive surgeries are especially difficult to measure precisely. We have available now the ORA Intraoperative Wavefront Aberrometry system. This system takes measurements of your eye during surgery. After the natural lens(cataract) is removed, the system measures and analyzes the eye to help calculate the best possible intraocular lens power. This system does carry an out of pocket charge that insurances will not pay.

PRESBYOPIA AND ALTERNATIVES FOR NEAR VISION AFTER SURGERY

Patients who have cataracts have, or will eventually develop presbyopia. This is a condition caused by aging that develops when your eye loses its ability to shift from distance to near vision. Presbyopia is the reason that reading glasses become necessary typically after age 40, even for people who have excellent distance and near vision without glasses. Presbyopic individuals require bifocals or separate reading glasses in order to see clearly at close range. There are several options available to you to achieve distance and near vision after cataract surgery. This is probably the most important decision you need to make about your cataract surgery, so please take the time to review your options and ask questions.

*GLASSES- You can choose to have a monofocal (single focus) IOL implanted for distance vision and wear separate reading glasses is most common, or have the IOL implanted for near and wear separate glasses for the distance vision.

***MONOVISION-** The ophthalmologist could implant IOLs with two different powers, one for near vision in one eye and one for distance vision in the other eye. This combination of a distance eye and a reading eye is called monovision. It can allow you to read without glasses. Many patients who wear contacts or who have had refractive surgery have monovision and are happy with it. Your surgeon will discuss and demonstrate this option to see if it might work for you. (not every patient can tolerate this type of vision)

***MULTIFOCAL IOL-**The ophthalmologist could implant a "multifocal" IOL. This is a newer "deluxe" type of IOL that provides distance vision and restores some or all of your ability to focus at near and intermediate distances. Not every patient is a candidate for this type of lens depending on many factors. Choosing this option will lead to higher "out of pocket" expenses since most insurance companies only pay for a monofocal lens. This has best results when both eyes are implanted with a "multifocal" IOL.. (These lenses do not correct astigmatism)

INFORMATION ABOUT TREATING ASTIGMATISM

Patients with nearsightedness and farsightedness often also have astigmatism. Astigmatism is caused by an irregularly shaped cornea; instead of being round like a basketball, the cornea is shaped more like a football. This change in shape can make your vision blurry. There are several treatment options for astigmatism:

- 1) -You can have a monofocal IOL for distance or near and continue to wear glasses or contact lenses to correct the astigmatism.
- 2) -You can have a "TORIC IOL" placed in your eye which corrects most of your astigmatism, this option will result in higher out of pocket charges because this is considered a "deluxe" lens.
- 3) - You can have refractive surgery called LASIK or PRK or,
- 4) - Your surgeon can perform a procedure during or after cataract surgery called a relaxing incision. This is done by making a small cut or incision in the cornea to make its shape rounder.

*Your surgeon will discuss with you if you are a candidate for any of these procedures.

ANESTHESIA, PROCEDURE, AND POST OPERATIVE CARE

The surgeon, anesthesiologist/nurse anesthetist will instill a topical anesthetic or possibly make your eye numb with an injection (local anesthetic), You may also undergo light sedation administered by an anesthesiologist/nurse anesthetist. Only in rare, special cases is cataract surgery done under "general anesthesia". There are risks associated with any anesthesia and sedation. These include injury to the eye, heart and breathing problems and in very rare cases, death. An incision, or opening is then made in the eye. This will require closure with very fine stitches which gradually dissolve over time. The natural lens in your eye is then removed. There are several ways to remove the lens; most often this is done by phacoemulsification, which uses a vibrating probe to break the lens up into tiny pieces. These pieces are then gently suctioned out of your eye through a small hollow tube inserted through the small incision. After your natural lens is removed, the IOL is placed inside your eye. In rare cases it may not be possible to implant the IOL you have chosen, or any IOL at all.

Your eye will be examined the following day after surgery by your surgeon and then in intervals determined by your surgeon. During the immediate recovery period you will place drops in the operated eye for about two to four weeks, depending on your individual rate of healing. If you have chosen monovision or a multifocal IOL you may have a little trouble adjusting to your vision until the second eye has had surgery. You should be able to resume most of your normal activities within 3-5 days and your eye is usually stable within 2-6 weeks, at which time glasses or contact lenses could be prescribed.

RISKS OF CATARACT SURGERY

All operations and procedures are risky and can result in unsuccessful results, complications, injury, or even death from both known or unknown causes. The major risks of cataract surgery with implantation of an IOL include but are not limited to:

1. Mild discomfort. Cataract surgery is usually quite comfortable. Mild discomfort for the first 24 hours is typical, but severe pain is extremely unusual and should be reported immediately to the surgeon.
2. Complications of removing the natural lens may include bleeding, rupture of the capsule that supports the IOL, perforation of the eye, clouding of the cornea, swelling in the retina, retained pieces of the natural lens, infection, detached retina, uncomfortable or painful eye, droopy lid, increased astigmatism, glaucoma and double vision. These and other complications may occur whether or not an IOL is implanted and may result in poor vision, total loss of vision or even loss of the eye in very rare cases. Additional surgery may be required to treat these complications. The cost for this additional surgery is not included in the price you pay for the cataract surgery.
3. Complications associated with the IOL may include increased night glare and/or halos, double or ghost images and dislocation of the IOL. Multifocal IOLs may increase the likelihood of these problems, so you should think carefully about how these problems might affect your job, hobbies and your daily life. In some instances, corrective lenses or surgical replacement of the IOL may be necessary for adequate visual function following cataract surgery.

4. Complications associated with a limbal relaxing incision include damage to the cornea, infection, and fluctuating vision while the incision heals. They can also lead to under and over correction; if this occurs another procedure and or glasses or contact lenses may be required.
5. Complications associated with local anesthesia injections around the eye include a perforation of the eye, injury to the optic nerve, interference with the circulation to the retina, droopy eyelid, breathing problems, low blood pressure, heart problems and in rare situations, brain damage or death.
6. If a monofocal(single focus) IOL is implanted, either distance or reading glasses or contacts will be needed after cataract surgery for best vision.
7. If you chose Monovision this may result in problems with impaired depth perception. Choosing the wrong eye for distance correction may result in feeling that things are the wrong way around. Once surgery is performed it is not always possible to undo what has done, or to reverse the distance and near eyes without some loss of visual quality.
8. Multifocal IOLs may reduce dependency on glasses but might also result in less sharp vision, which may become worse in dim light or fog. They may also cause some visual side effects such as rings or circles around lights at night. It may be difficult to distinguish an object from a dark background, which will be more noticeable in areas with less light. Driving at night may be affected. If you drive alot at night or perform delicate, detailed, up close work requiring closer focus than just reading, a monofocal IOL in conjunction with eyeglasses may be a better choice for you. If complications occur at the time of surgery, a monofocal IOL may need to be implanted instead anyway. If you choose a multifocal IOL, it is possible that not all of the near and intermediate focusing ability of your eye will be restored. Additional treatment or surgery may be necessary.
9. If complications occur at the time of surgery, the doctor may decide not to implant the IOL you have chosen or any IOL at all depending on the type of complication.
10. Other factors may affect the visual outcome of cataract surgery, including other eye diseases such as glaucoma, diabetic retinopathy, age related macular degeneration; the power of the IOL; your individual healing ability; and if certain IOLs are implanted, the function of the ciliary muscles in your eyes.
11. Your doctor will use special equipment and computer formulas to select the best IOL for you, but the results may be different than what was planned. You may need to wear glasses or contact lenses after surgery to obtain your best vision. Additional surgeries such as an IOL exchange, placement of an additional IOL or refractive laser surgery may be needed if you are not satisfied with your vision after cataract surgery.
12. Regardless of the IOL chosen, you may need laser surgery (a YAG capsulotomy) to correct clouding of the vision after cataract removal. at some time in the future the IOL may have to be repositioned, removed surgically, or exchanged for another type of IOL.
13. If your ophthalmologist has informed you that you have a high degree of farsightedness and/or that the axial length of your eye is short, your risk for a complication known as nanophthalmic choroidal effusion is increased. This complication could result in difficulties completing the surgery and implanting a lens or even loss of the eye.
14. If your ophthalmologist has informed you that you have a high degree of nearsightedness and the axial length of your eye is long, your risk for a complication called retinal detachment is increased. Retinal detachments can usually be repaired but may lead to vision loss or blindness.
15. Since only one eye will undergo surgery at a time, you may experience a period of imbalance between the two eyes. This may or may not be corrected with eyeglasses depending on your prescription. You may have to wear glasses or contacts temporarily until the other eye can undergo surgery. The second eye can usually be done safely within 2-4 weeks of the first eye stabilizing.
16. There is no guarantee that cataract surgery will improve your vision. As a result of the surgery and/or the anesthesia, it is possible that your vision could be made worse. In some cases, complications may occur weeks months or even years later. These and other complications may result in poor vision, total loss of vision or even loss of eye in rare cases. You may need additional treatment or surgery to treat these complications. This additional treatment is not included in the fee for this procedure.

MY NOTES AND QUESTIONS:
