

What is a cataract?

The human lens is a clear structure near the middle of the eye that focuses incoming light on the retina. A cataract is any opacity or loss of clarity of this structure. If the lens is not optically clear, then incoming light will be affected and the patient may experience decreased vision, glare, halos around lights, difficulty reading, and even double vision.

Treatment Options

The development of cataract is almost universal as aging affects everyone. Simple measures such as changing spectacle prescription and tinting of spectacle lenses may diminish visual impact of cataract and delay surgery. Some people may be able to function in an acceptable manner with vision that is moderately impaired by a cataract. The decision to live with the effects of a cataract will not risk harm to your eye and in most cases should not diminish the chance of a good visual outcome with cataract surgery in the future. However, the definitive treatment for restoration of clear vision in the presence of a cataract is surgical removal and placement of an intraocular lens implant.

Procedure

Cataract surgery is usually performed under local anesthesia as an outpatient procedure in an ambulatory surgery center (ASC). After your arrival in the pre-operative area at the ASC, you will receive dilating eye drops and an IV line will be placed. Once you are comfortable, the operative eye will be anesthetized (numbed) with local anesthetic using a combination of drops and/or injection. Following the placement of anesthetic, you may not be able to move or open your eye. It is possible that part of your face may remain numb for several hours.

Cataract removal is usually performed with an ultrasound machine (phacoemulsification) breaking the cataract into tiny fragments and then removing the fragments from the eye with vacuum. Because the instruments are so small, the surgical wound into the eye is also very small and sutures are usually not necessary.

It is recommended that an intraocular lens (IOL) implant be placed at the time of cataract surgery unless there are specific contraindications. The lens implant corrects for the loss of focusing power resulting from the removal of the cataract (human lens). There are several types of intraocular lens implants available today, which are discussed below. The alternatives to a lens implant are strong glasses or contacts.

Risks

Like most surgeries, there are small risks of bleeding (choroidal hemorrhage) and infection (endophthalmitis) that could lead to loss of vision or loss of the eye. Other potential complications of surgery include (but are not limited to) retinal tear or detachment, glaucoma, swelling of the cornea or retina, optic nerve injury, irregular pupil, droopy eyelid, double vision, and possible need for further surgery. There is also a small risk of adverse reactions from the lens implant possibly necessitating its removal.

Decision

Although there are risks associated with any surgery, cataract surgery is one of the most common and successful operations in the U.S. The ultimate decision regarding whether or not to have cataract surgery is up to the individual and should be made after weighing the risks and benefits. This decision is yours to make. Please be assured that if you should elect not to have surgery, your care will not be prejudiced in any way.

Cataract Surgery: What to Expect

Before Surgery:

- You will need to decide what type of intraocular lens (IOL) you wish to have. Dr. Ortman will need pre-operative measurements to determine the size of lens implant to use. We have several handouts to help you make this choice, an informed one.
- You may also need medical clearance if you have any high risk medical conditions.

Day of Surgery:

- You will need to be fasting after midnight, and will need a driver to the ASC on surgery day.
- If you have diabetes, you should not take any oral diabetic medications in the morning and should decrease any nightly insulin dose by half to avoid your sugar dropping too low.
- Some medications can be continued, such as beta-blockers (for blood pressure/heart rate).
- Unlike many other surgeries, it is not recommended to stop any blood thinner in preparation for cataract surgery (per American Academy of Ophthalmology recommendations).
- On surgery day, please bring all prescribed eye drops as well as a photo I.D. to the ASC.

After Surgery:

- You will have a patch and/or plastic shield over your affected eye. This will be removed a couple hours after surgery, sooner if you feel your eye opening under the cotton pad.
- You will then start your post-operative eye drops as directed that day, and will continue for approximately 4 weeks. (the drop schedule given at your one day post-op will change weekly)
- You will need to return to our office one day post-op, one week post-op and one month post-op. If both eyes are to have surgery, the one month post-op appointment will be done after the second eye surgery unless surgeries are more than a month apart.
- We ask that you have a driver for your one day post-op visit (as blurry vision is very common on the first day after surgery). If you feel comfortable you may drive yourself for your other appointments unless otherwise told by the physician.
- Any glasses can be prescribed by your optometrist (if you have on or were referred by one) or by our office at the one month visit. Not all patients will need glasses after surgery, but many find that they want them for certain situations (reading, driving, etc.)

Activity Restrictions:

- We ask that you avoid heavy lifting (greater than 10-15 pounds), bending over (head below waist), eye rubbing, yard work (mowing, gardening, etc.) for at least one week after surgery.
- When you return to any outside activity, we recommend wearing sunglasses (either your own or those provided to you at the time of surgery) to help protect your eyes from UV radiations as well as any debris that may inadvertently get in your eye.
- We ask that you avoid hot tubs or swimming pools for two weeks after surgery.

We look forward to taking care of you and helping you see better!

Corneal Astigmatism

Definition

Astigmatism refers to asymmetry of the refractive power of the eye, with respect to the degree of orientation (or meridian) of the incoming light. Astigmatism may arise from one of two sources in the eye, either the lens or the cornea. Patients with uncorrected astigmatism will experience distortion and blurriness in their uncorrected vision. Astigmatism is often corrected by eyeglasses or special (toric) contact lenses.

Astigmatism in Cataract Surgery

Astigmatism of the lens is eliminated when the cloudy human lens (cataract) is removed during surgery. However, if corneal astigmatism is present, then this astigmatism will persist after standard cataract surgery. Presence of corneal astigmatism will require post-operative correction (glasses or contact lens) for best vision.

Modern cataract surgery now offers several options for simultaneous reduction of corneal astigmatism. Mild amounts of corneal astigmatism respond nicely to partial thickness corneal incisions centered around the steep axis (meridian), known as limbal relaxing incisions (or LRI's). LRI's are performed at the same time as the cataract surgery and compliment the cataract removal very nicely. LRI's are typically tolerated very well.

Larger amounts of corneal astigmatism are better reduced with a toric intraocular lens implant. A toric IOL has built in asymmetric power to offset the patient's corneal astigmatism. If a patient selects a toric IOL, it then replaces the standard monofocal IOL during the cataract surgery. The toric IOL must be alligned with the patient's steep corneal meridian during the surgery in order to offset the astigmatism. Given the need for precise alignment, the surgeon may choose to abandon the plan for initial placement of the toric lens if the eyes support structure is felt to be insufficient during the surgery. Additionally, if the toric IOL rotates postoperatively, it may be necessary to return to the OR in order to reposition the IOL. Toric IOL rotation is not common, but a patient should be aware that it could occur. Typically, however, a toric IOL is an excellent choice for reducing moderate amounts of corneal astigmatism.

Paying for Astigmatism Correction in Cataract Surgery

Reduction of pre-existing corneal astigmatism is not covered by 3rd party payers. Treatment of pre-existing astigmatism is considered refractive surgery (a procedure performed to reduce dependence on eyeglasses) and is non-covered. However, it is certainly elective for the patient to choose to have astigmatism reduction at the same time as cataract surgery (even though it is a non-covered service).

It is the patient's responsibility to pay for refractive surgery, including astigmatism reduction. These costs are in addition to any co-pay or deductible responsibilities due for the routine cataract surgery. Our office charges a flat fee for pre-operative testing, surgical planning, and for the performance of surgical reduction of astigmatism. The fee is \$400 for LRI's or \$650 for placement of toric lens implant. If a toric lens implant is selected, then the patient will also have a fee from the ASC in the amount of \$345. This is in addition to the office fee for a total of \$995.

Many people have successful cataract surgery without surgical reduction of corneal astigmatism. These people typically see much better after surgery than before. However, without astigmatism reduction, an individual with post-operative astigmatism will need glasses or a toric contact lens to see their best. There is nothing wrong with using glasses after cataract surgery. Surgical reduction of astigmatism is the "icing on the cake" for individuals having cataract surgery who would like to reduce their dependence on glasses for distance vision.

Presbyopia

Monofocal Intraocular Lens (IOL) Implants

When an intraocular lens is chosen, it is necessary to decide whether an individual wants to see best at distance, near, or in between. This is due to the majority of standard IOL's being monofocal. Monofocal means that the lens will only be in focus (once inside the eye) at once certain previously determined distance (whether that is distance, intermediate, or near). Insurance plans, such as Medicare, only cover the cost of a monofocal lens implant. Most patients choose distance correction for their monofocal IOL implant. Occasionally, however, an individual with a history of being near-sighted may wish to remain near-sighted as they are used to wearing glasses to see far away and prefer to be spectacle free when focusing at near. The typical patient who chooses a monofocal IOL set for distance will need to wear glasses to see their best up close and at intermediate distance (i.e. computer). Over-the-counter reading glasses, however, are often sufficient for these tasks and are inexpensive and readily available.

Monovision

Some individuals have a very strong desire to be 'glasses-free' after cataract surgery for more than once distance. There are few ways to achieve this goal. It is important to recognize that the quality of the vision can be somewhat compromised with any of these options. The first option is called monovision. This situation is when a monofocal IOL for distance is placed in one eye and monofocal IOL for near is placed in the other eye. This option is a good one for those individuals who have already experience monovision by using either contact lenses or by previous LASIK surgery. The downside to this option is a decrease or absence of typical "3-D" vision that comes with both eyes focusing together at the same distance. It is reasonable to do a trial of monovision using contact lenses before cataract surgery if a patient is interested and has no experience with this type of vision. One benefit of choosing monovision is that the lenses utilized are fully covered by insurance and there is no extra out-of-pocket expense.

Extended Depth of Focus Intraocular Lens Implants (EDOF lens implant)

Another option to reduce dependence on glasses for both distance and near vision is a multifocal or extended depth of focus intraocular lens implant. This type of lens implant has a portion of the lens dedicated to distance vision and a portion dedicated to near vision. This lens has been shown to decrease a person's dependence on spectacles (helping the patient to see both at distance and at near without glasses), although there is never a guarantee that an individual won't need glasses for some tasks. The quality of contrast and definition of the vision with this type of intraocular lens is often decreased. As a result, this type of lens is typically not recommended in individuals with pre-existing eye disease. There is also a larger chance of glare difficulties in bright light or at night with this type of lens compared with a monofocal lens implant. These symptoms can be severe enough that some individuals may wish to have this implant surgically removed. This type of lens is not covered by insurance (Medicare, Medicaid, private insurances, etc.) Our office charges \$650 for pre-operative testing, surgical planning, and for the performance of placing the multifocal intraocular lens implant. The multifocal lens implant must also be purchased through the ASC and has an approximate cost of \$745.

Combined Toric and Extended Depth of Focus Intraocular Lens Implants

Finally, the Extended Depth of Focus IOL can be combined with astigmatism reduction in the form of a Toric EDOF IOL. This lens would reduce astigmatism while also assisting near vision without glasses. Our office charges a \$900 fee for pre-operative measurements, planning, and surgical placement of this IOL. Additionally, the Toric EDOF IOL must be purchased through the ASC and has an approximate cost of \$835.

Eye Physicians and Surgeons of Athens
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Voluntary Advanced Beneficiary Notice

(Non-covered services waiver from)

Patient Name: _____ DOB: _____ DOS: _____ R L

Fee Summary:

_____ Limbal Relaxing Incisions	\$400 (measurements, planning, and surgery)
_____ Toric Intraocular lens Implant	\$650 (measurements, planning, and surgery) + \$345 (to ASC for additional cost of lens) = \$995 total
_____ Extended Depth of Focus Lens Implant	\$650 (measurements, planning, and surgery) + \$745 (to ASC for additional cost of lens) = \$1,395 total
_____ Extended Depth of Focus Toric Lens Implant	\$900 (measurements, planning, and surgery) + \$835 (to ASC for additional cost of lens) = \$1,735 total

All fees must be paid in full by one week in advance of the surgery date to cover the cost of performing the surgery.
****Please note that you may receive a billing statement before or after your payment has been received in the office, depending upon when you scheduled your surgery date.****

ABN Statement:

I have been advised and understand that the services listed above are not considered eligible for benefits by any insurance plan (ex: Medicare, Medicaid, or private insurance). I understand that my health insurance coverage has certain restrictions and limitations, such as authorization requirements and non-covered services and supplies. If my dependent or I choose to obtain the services and/or supplies as detailed on this page, then I agree to be financially responsible for any and all related charges.

Services Requested	Reduction of pre-existing corneal astigmatism and/or Presbyopia reducing extended depth of focus IOL.
Reason for possible denial	Refractive surgery to reduce dependence on eyeglasses

Patient/Guardian signature

Date

Witness

Payment Due Date: _____

Summary

Cataract surgery is a very common, successful surgery in the United States that restores meaningful vision to many patients every year. Our office is committed to providing you with the best possible care in a caring, efficient environment. Please let us know if you have any questions and we look forward to working with you.

I have read and satisfactorily understand the 4 page informational packet explaining cataract surgery and intraocular lens choices. I have also discussed the risks, benefits, and alternatives of cataract surgery as well as the intraocular lens options with my surgeon. I have been given full opportunity to ask and have any remaining questions explained.

I would like to select the following intraocular lens choice for my upcoming Right / Left cataract surgery:

Insurance covered – no additional fee

Monofocal distance IOL

Monofocal near IOL (monovision near)

Insurance not covered – additional fee applies

Limbus Relaxing Incisions (for astigmatism, added to non-toric IOL choice)

Toric distance IOL (for astigmatism)

Toric near IOL (for astigmatism and monovision near)

Extended Depth of Focus IOL (for distance and near)

Extended Depth of Focus Toric IOL (for distance, near, and astigmatism)

Patient signature

Date