CATARACT SURGERY

See Clearly, like before.

> *Inside the eye, there is an optical lens helping us to focus on what we see. This very lens can lose clarity with age and develop into a cataract (i.e. opaque lens)*

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01 What would I feel if I had cataract?

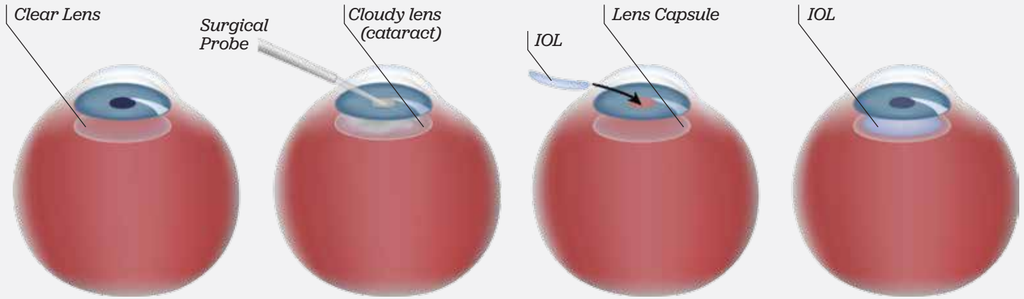
Cataract development is usually slow and vision worsens progressively as opposed to sudden decrease in vision witnessed with other visual diseases. Patients might also notice dimming of their sight, blurry details, and night symptoms like glare especially from oncoming cars headlights when driving. Some patients develop near-sightedness (myopia) due to changes in their crystalline lens texture, with subsequent worsening of far vision, but with paradoxical relative improvement in uncorrected near vision due to the concomitant development of myopia.

An artificial lens is implanted in place of the natural cloudy lens (cataract).

A variety of different lenses is available based on the eye exam and the functional and visual needs of the patient.

02 How to treat cataract?

There is currently no medical treatment for cataract, and cataract will not get better on its own. Cataracts are treated by microscopic surgery under topical (local) anesthesia with conscious sedation administered via intravenous medication by the anesthesia team, where a tiny incision (around 2 mm) is made in the eye and a pen-like probe using ultrasonic vibrations chatters the cloudy lens, which is then aspirated through the very same probe. A clear, foldable, plastic lens is then inserted in the eye through the tiny incision to replace the cloudy lens. The incision does not need any stitching, but sometimes a stitch is applied, and is removed one week after surgery. The total procedure time is less than 20 to 30 minutes and is performed as a same-day surgery.



IOL - Intraocular Lens

03 What are the risks associated with cataract surgery?

In the vast majority of cases, approximately 98-99% of the time, the surgery is uncomplicated, with excellent visual improvement and patient satisfaction. Cataract surgery should however never be trivialized. In a small percentage of patients, often unpredictable events can occur which can lead to less than ideal results, even if the surgery is performed by experienced surgeons. Some of the most common risks are listed and explained below:

1. Ocular infection (Endophthalmitis): can be serious, and might cause total loss of sight. Fortunately, it is very rare, occurring in one in several thousands of cases.

2. Swelling of the central retina (cystoid macular edema): can develop after cataract surgery from excess inflammation, and might decrease vision. The treatment is usually medical with administration of anti-inflammatory eye drops.

3. Retinal detachment: rare, and happens more often in high myopes, who are at a higher risk to develop retinal detachment after cataract surgery. Treatment is surgical.

4. Posteriorly dislocated lens material: rarely, some lens material can fall into the back cavity of the eye (vitreous cavity). When large, the ophthalmologist may recommend a second surgery, a vitrectomy, to remove the dislocated material, to prevent the development of unnecessary inflammation.

5. Corneal edema (swelling): uncommon, but can lead to a significant decrease in vision. Many patients improve spontaneously, while others might require a corneal transplantation.

6. Posterior membrane opacification or “after-cataract”: a membrane might form behind the lens implants, decreasing vision, even years after surgery. It is easily treated by "zapping" it using an office-based laser (YAG laser).

04 General expectations & guidelines

After cataract surgery, vision usually improves by the first postoperative day, and may take up to a week for full visual recovery. Patients may resume normal activity and office work from the second day. No eye rubbing or external eye pressure is allowed for one month, plastic eye shields should be worn during sleep for 2 weeks, direct water contact to the eye should be avoided for one week, and swimming for one month. Bending over, or lifting heavy objects should be avoided for one week. Light exercise such as jogging could be performed on the second day and sports activity resumed after one week. Patients need to be examined on the second day, within 4-6 days, and then a month and 3 months later. There are antibiotic, anti-inflammatory, and steroid eye drops, which need to be instilled in the operated eye in a tapering regimen for several weeks after the procedure.

The lens implanted during cataract surgery should balance the eye's visual error (refractive error), eliminating myopia or hyperopia down to within half of diopter in the majority of patients, reducing or eliminating the need for eyeglasses for far vision. If the patient has inherent astigmatism, however, a special toric lens could be implanted to correct the eye astigmatism, otherwise eyeglasses would need to be worn to improve the eyesight after surgery. Patients would need to wear eyeglasses to improve their vision for near, unless they turn out to be candidate for multifocal or accommodative lenses, which would improve near vision and reduce and often eliminate the need for glasses for near.

> *A detailed preliminary evaluation, customized planning, and meticulous surgery are key to patient satisfaction.*