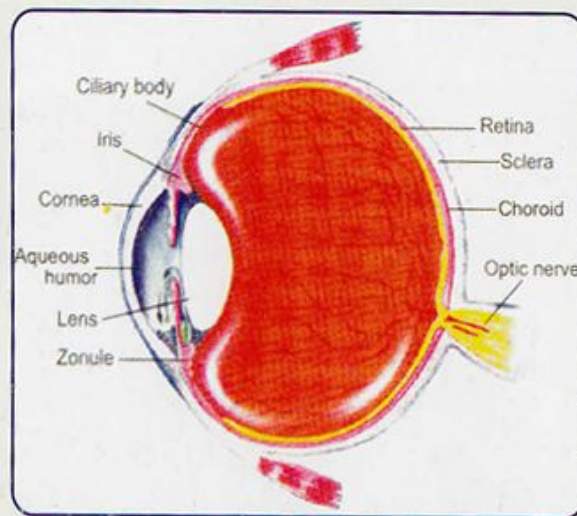


CATARACT

What is the lens ?

Lens is the part of the eye that helps focus light on the retina. The retina is the eye's light-sensitive layer that sends visual signals to the brain. In a normal eye, light passes through the lens and gets focused on the retina. To help produce a sharp image, the lens must remain clear.



What is a Cataract ?

A cataract is the clouding of the lens because of degeneration & clumping of proteins of the lens, as a result of which the vision becomes dumb or blurred.

Initially, it starts only with a small part but gradually it grows over a larger area & causes dimness of vision.

Causes of Cataract

Most common cause of cataract is ageing process. Sometimes, there are other causes also like diabetes, glaucoma, prolonged use of certain medications such as steroid, eye injuries, infection etc. It can also be congenital cataract, some babies are born with cataract.

Excessive consumption of alcohol, smoking, excessive exposure to sunlight and high levels of radiation can also be the cause of cataract.

Symptoms of Cataract - Most common symptoms are

1. Cloudy or dull vision.
2. Poor night vision.
3. Sensitivity to light and glare, halos around lights.
4. Fading of colours
5. Frequent changes in eye glasses.
6. Double or multiple vision.
7. The need for brighter light for reading and other activities.

When to Seek Medical Advice

Regular eye check up after the age of forty at least once in two years helps in detecting and keeping track of cataract development.

What is the treatment for cataract ?

In the initial stages changing the glass power helps to certain extent, but as cataract progresses the only way of treatment is removal of cataract as it interferes with daily activities such as driving, reading, watching television. No medications, eye drops, exercise or glasses can help in reversing lens cloudiness & in turn improve visual activity. Surgery is the only way.

In Cataract surgery effective ?

Cataract removal is one of the most common operations performed. In 99.5% of case people have better vision post operatively.

Types of cataract Surgery

Intra capsular cataract extraction (ICCE)

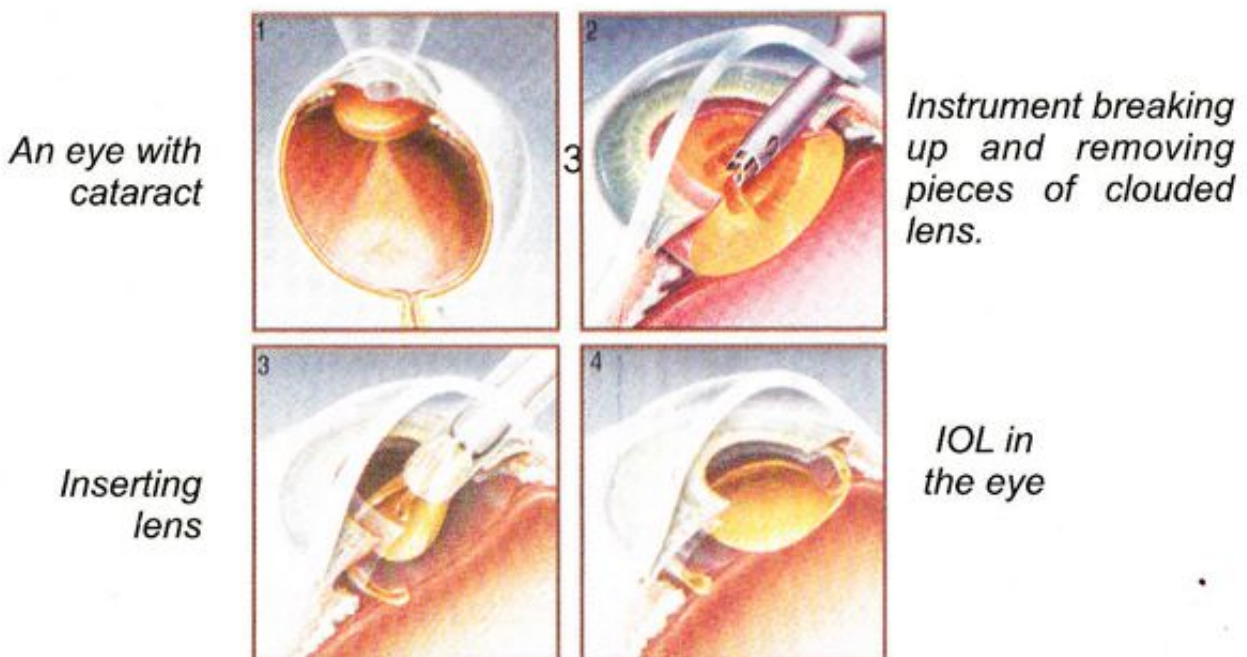
Earlier the whole lens with capsular bag used to be removed through a large incision of 12-13 mm and the wound was closed with sutures. Lens implant is not possible as there is no capsular support for the lens. Post operatively patient has to wear aphakic glasses that is thick glasses. (10 D -12 D). Also there is an increased risk of post operative visual distortion.

Extra capsular Cataract Extraction (ECCE)

Here also the lens is removed through a large incision 10-12 mm but by making hole in the capsular bag, so that we can put artificial lens known as Intra Ocular lens inside. Because of this patient does not have to wear thick aphakic glasses. Here also there is increased risk of post operative visual distortion and astigmatism.

Phacoemulsification

This is the latest technology in which small self sealing incision of 2.6 mm is required. It can be performed under topical anaesthesia ie without giving any injection near the eye and there is no need of bandage either. Nucleus of the cataractous lens is removed by fragmenting into smaller pieces using ultrasound energy and then aspirated out. As this is a self-sealing wound no stitches are required. Hence quick healing and no changes of visual distortion. It allows faster recovery to normal daily activities.



When is the right time to undergo Cataract Surgery

The sooner the better. It is not necessary for cataract to mature fully or for the vision to become totally cloudy. In hypermature cataract chances of surgical complications increase.

How long does a lens implant last ?

There are no signs to indicate that a lens implant will "wear out". They last the life of the patient.

Can surgery be done on both eyes at the same time ?

It is preferable to do surgery on other eye at an interval of 4-5 day so that first eye settles down by then.

what happens prior to cataract Surgery ? or What test should be done prior to Surgery ?

Prior to surgery few medical and blood tests are done. And a test to find out intra ocular lens power is done. (A-Scan Sonography)

How long one has to stay in the hospital after Surgery ?

With newer phacoemulsification technique there is no need to stay in the hospital. Patient is able to resume his or her daily activities within a very short span of time.

What happens after the Cataract Surgery ?

A mild discomfort due to itching & watering remains for a while which gradually reduces within a day or two. Patient has to wear eye glasses to protect the eye from the dust particles & pollution for few days.

How long does it take to have normal vision ?

You can quickly return to many everyday activities. Glasses are usually prescribed two weeks after the surgery.

What happens if surgery is not done ?

With time cataract increases in size and hardness, and if the cataract is very advanced, it can be difficult to perform surgery. In rare situations it can be dangerous leaving it for a longer period of time.

Can a Cataract recur ?

No. Once it has been removed, it does not recur. Sometimes a thin film of scar tissue can form behind the implanted lens, creating blurred vision, but this can be easily treated with laser and does not require surgery.

Will I require spectacles after lens implant surgery ?

Artificial lens implanted in the eye doesn't have accommodation power like the natural lens so in attempt to have clear vision, patient needs minor spectacle correction. It also depends on individual healing response after surgery. With the use of multifocal lens, spectacle dependence is much reduced.

ADVANCES IN CATARACT SURGERY

Advances in A-scan Sonography : (For IOL Power Calculation)

Latest immersion mode technique provides exact power of intra ocular lens to be used. (useful mainly in calculating multifocal IOL power)

Advances in Anaesthesia

Before surgery we need to Anaesthetise the eye in order to have smooth surgery. It can be done in two ways.

1. Local anaesthesia : In this technique we give one injection around the eyeball (Peribulbar Anaesthesia) So that there is no eye movement during surgery & patient does not feel pain.
2. Topical Anaesthesia : Here we do not give any kind of injection but eye is anaesthetised just by putting local drops. There is no need for bandage post-operatively & patient goes home with protective eye glasses. Decision for T.A. has to be taken by the doctor depending on condition of eye and patient's co-operation.

Advanced machines used for surgery

Alcon Legacy Phaco machine (USA) and Carl Zeiss visu 150. Surgical Microscope (Germany) are the latest machines which help to conduct a smooth surgery.

Advances in Intra Ocular Lenses : (IOL)

Initially IOL used were of a hard material (non - foldable lens) So, we needed to enlarge the incision (upto 5.5 mm) for lens implantation.

Now we get IOLs which can be folded & (foldable lenses) inserted through the 2.6 mm incision. So, the healing is much quicker. We also get TORIC IOLs for cylindrical error.

One step further, we have MULTIFOCAL LENSES.

So, that patient can perform 90-95% of work without glasses.

We get two types of multifocal lenses, One is refractive & others is diffractive technology:

1. **Diffractive** : Eg : Acrysof ReSTOR lenses & Tecnis silicon M.F.
2. **Refractive** : Eg : AMO Rezoom lenses.

Post Operative care :

1. Wear dark glasses for a period of 15 days to protect the eye from dust.
2. No head bath for 5 days.
3. Don't wipe or rub the eye for 2 weeks.
4. Don't do strenuous exercises or lift heavy weights for 2 weeks.
5. Eye drops should be put on the lower part of the eyelid only.
6. Eye Drops should be put regularly for 6 weeks as explained.
7. In case of pain, redness or difficulty in vision, report immediately to the Doctor.