Diabetic Retinopathy

The early stage of Diabetic Retinopathy is called Non Proliferative Diabetic Retinopathy in which mild swelling develops on the retina with few hemorrhages. Such patients need to be monitored regularly for further advancement. In case the swelling worsens and vision is reduced, treatment is required in the form of drops or injections inside the eye.

![Normal and Diabetic retina comparison](image)

If the patient is not treated at this stage the disease goes into advanced stage which is called Proliferative Diabetic Retinopathy. At this stage, new blood vessels are formed which can bleed inside the eye and also cause detachment of retina causing marked diminishing of vision. Proliferative Diabetic Retinopathy can be treated by laser.

Only in advanced disease, surgery is required which may not be very fruitful in giving good vision. Hence the best way is to catch this disease early and treat it timely.

1. **How do I know whether I am having Diabetic Retinopathy or not?**
   You might have mild diminishing of vision or sometimes there may not be any symptoms at all. The only and absolute way to know is to get your eyes checked regularly. We recommend 6 monthly or yearly check-up depending upon your eye condition.

2. **Who is more prone to get Diabetic Retinopathy?**
   - Uncontrolled diabetes
   - Persons having diabetes for more than 5 years
   - People having associated blood pressure
   - Persons having blood sugar fluctuations even after taking proper treatment
   - Persons with kidney disorders (Diabetic Retinopathy and Kidney Disorders go hand in hand)

Diabetes is a metabolic disorder and so diabetic patients are more prone to get early Cataract, Glaucoma and Dry Eye Syndrome.

CIMS hospital has special facility to store your retinal images so that the occurrence and advancement of the disease can be closely monitored.
Glaucoma

Glaucoma is an eye disease that can cause vision loss or blindness. In glaucoma, fluid builds up in the eye, which puts pressure on the back of the eye. This pressure injures the optic nerve and causes vision loss. Side vision is often affected first, followed by front vision.

Types of Glaucoma

There are two main types of glaucoma:

- **Open-angle Glaucoma** often has no signs until it reaches an advanced stage. The pressure slowly damages the optic nerve over time. This affects both the eyes, but first one eye will start showing signs.

  ![NORMAL VISION](image1) ![EARLY GLAUCOMA](image2)

  ![ADVANCED GLAUCOMA](image3) ![EXTREME GLAUCOMA](image4)

- **Angle-closure glaucoma** has a very fast rise in pressure and sudden signs. Permanent vision loss can occur within one day; so it is very important to seek medical care right away.

![Open-angle Glaucoma](image5) ![Angle-closure glaucoma](image6)
Glaucoma

You are at risk for developing glaucoma if you:
- Have a family member with glaucoma
- Have diabetes, high blood pressure, heart disease or hypothyroidism
- Are nearsighted (Wearing plus number)
- Have had an injury to the eye, certain eye surgeries or chronic eye inflammation
- Have been taking steroids for long periods of time
- Are over age of 40
- Are of Asian-American descent; this puts you at an increased risk for angle-closure glaucoma

Glaucoma may have no signs until there is vision loss. Other signs you may have:
- Blurred vision
- Mild headaches
- Severe eye pain

Diagnosis by:
Your eye doctor may do tests to check your:
- Vision test
- Eye pressure (Tonometry)
- Gonioscopy
- Optic nerve examination
- Perimetry
- Central Corneal Thickness (CCT)
Glaucoma cannot be cured and damage cannot be reversed. But with treatment, eye pressure can be decreased and further vision loss can be prevented.

How Glaucoma is treated?
Glaucoma can be usually controlled by eye drops by using the medication that reduce the eye pressure.
- Never stop using medication or change without consulting your ophthalmologist.
- After using or starting your medication for glaucoma, your eye doctor will want to examine you frequently. Depending on your treatment and your eye pressure, you can expect to visit your eye doctor nearly every four months.
- If medication does not work properly and your eye pressure increases or your vision is reduced, then surgery is recommended.
- Laser treatment is effective in special cases.
# High-tech Management of Cataract

## What is Cataract?
- Due to aging, a part of eye called the lens becomes cloudy and hence causes decreased vision which is called Cataract.

## Signs of Cataract
- Vision that is cloudy, blurry, foggy
- Problems driving at night such as glare from oncoming headlights
- Seeing circles around lamps
- Difficulty in seeing other person from far away
- Frequent changes in spectacle number
- Near vision starts improving

## How can Cataract be treated?
- The cataract can only be treated surgically.
- Ophthalmologist will decide whether you have sufficient cataract after complete examination.
- With the new techniques, there is no need to wait for the cataract to be matured.
- Whenever a person experiences difficulty in vision due to cataract, he/she can go for the cataract surgery.
- Cataract surgery can be done in any season.

## Techniques

1. **Phaco Emulsification**:
   - It is a state-of-the-art technique under which patient need not get admitted to the hospital.
   - Cataract is removed with the help of ultrasound.

## Advantages of Phaco:
- It is stitchless.
- Less surgical time and precise
- Foldable lens is implanted through small incision
- After operation, spectacle number is minimum.
- Early visual rehabilitation

## Selecting the Best IOL Option:
- Intraocular lens (IOL) is made up of acrylic material. It is folded and inserted into the eye. It later unfolds to its original size and shape. Different IOL options are available which can help enhance the vision.
- The notion that “no glasses are required” after cataract surgery is not correct. Depending on the IOL implanted and the health of the eye, selective need for glasses will differ from person to person. Your doctor can suggest the suitable IOL options for your eye only after going through the entire series of preoperative investigations and a discussion about your visual requirements.
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- The most common type of intraocular lens has a monofocal optic with a single corrective power. These lenses provide good vision at one distance, usually far.
- There are also bifocal lenses that focus at two distances – generally near and far. However, patients with monofocal and bifocal IOLs need to continue to wear glasses for certain activities such as computer work.

**Blue Blocking (Yellow Color IOL)**
- This type of IOL prevents damage to retina from ultra violet sunlight.

**Toric IOL**
- Advanced technology toric implants have the astigmatism (Cylinder number) correcting optics within the implant.

**Multifocal IOL**
- With this latest IOL, patient need not wear glasses after the surgery in day to day activities.