

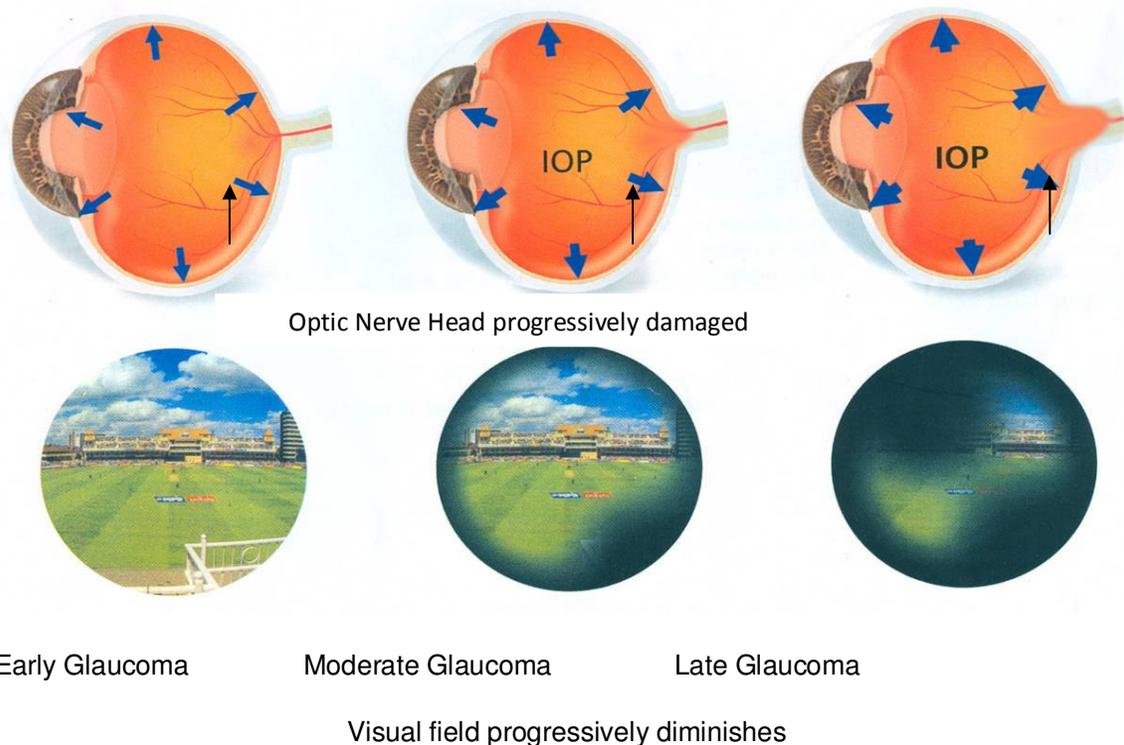
GLAUCOMA

What is Glaucoma?

Glaucoma is a group of diseases where the optic nerve (nerve which helps us to see) is gradually damaged, when the pressure inside the eye is higher than what the optic nerve can withstand.

What happens in glaucoma?

When the optic nerve becomes weak, the person gradually loses vision. In early glaucoma, peripheral vision of the person is gradually lost. To perform our day to day activities, our central vision is necessary, so the gradual progressive loss of peripheral vision goes unnoticed by the patient. When the central vision is affected in advanced glaucoma, the patient realizes that his/her vision is less. This is why glaucoma is also called “the sneak thief of sight”.



Who is at risk?

Anyone (from new born to adults) can suffer from glaucoma, but some people are at higher risk than others. Some of the most common risk factors include:

- Age over 40 years
- People with a family(blood related) history of glaucoma
- Patients with diabetes ,hypertension, myopia, hypermetropia, thyroid disease
- Patients on long-term steroids
- History of injury to eye

Why does eye pressure increase?

A fluid called aqueous humour is produced inside our eye, day and night, and it drains out through fine channels into the blood. When for some reason, drainage is less than production, aqueous humour accumulates inside the eye and pressure of the eye rises.

What are the symptoms of glaucoma?

Sometimes there are no significant complaints

Frequent change of presbyopic glasses

Frequent headache, eyeache, heaviness of eyes

Seeing coloured haloes

Dimness of vision or decrease of side vision

In angle closure glaucoma, there may be acute attack with pain, redness of eye with headache and vomiting.

What are the tests used to diagnose glaucoma?

Diagnosis of glaucoma needs a comprehensive eye examination. Recent advances in technology, have improved our ability to diagnose glaucoma more accurately and at an earlier stage.

Tonometry

Measuring the pressure in the eye with the help of an instrument called tonometer. The normal range of IOP is 10 – 21 mm Hg. High pressure is a risk factor for glaucoma, however, an elevated pressure by itself does not make the diagnosis of glaucoma.

Gonioscopy

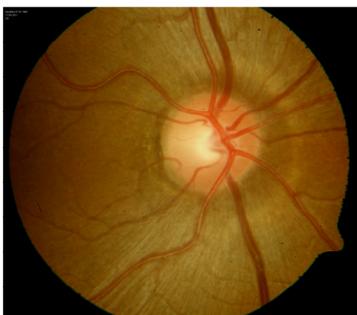
A lens is placed on the eye that lets the doctor evaluate the drainage pathway of aqueous humor in the eye.

Comprehensive, Dilated Eye Examination

The eye exam should include dilation of the pupils and a stereoscopic view of the optic nerve head.

Fundus photos

The fundus is the back of the eye or retina. Pictures of the fundus are helpful to look for changes in the appearance of the optic nerve over time.



Healthy optic nerve



Glaucomatous optic nerve

Visual Field testing (Perimetry)

Since the primary symptom of glaucoma is a progressive decrease in peripheral vision, one of the most important tests is a visual field. This test helps us determine the extent of damage and how good is the control of glaucoma.

Newer tests – OCT , GDx VCC, Pachymetry

This is the most recent advancement in the detection and diagnosis of glaucoma. It measures the thickness of the layer of nerve fibers leading to the optic nerve. It helps us detect very early damage and formulate the treatment.

How is glaucoma treated?

Glaucoma is a disease that will require lifelong treatment like hypertension and diabetes. The purpose of glaucoma treatment is to reduce the eye pressure so that the optic nerve is not damaged any further. Timely diagnosis and proper treatment ensures that a person enjoys good vision during his lifetime. Glaucoma is not curable but controllable.

The modalities of reducing eye pressure maybe -

Medical – Eyedrops and tablets

Laser – Laser peripheral iridotomy (laser PI) plays an important role in controlling IOP where the drainage pathway is narrow or closed.

Surgery – Trabeculectomy (helps to reduce eye pressure but optic nerve damage cannot be reversed)

How can you help successfully manage glaucoma?

Know your and your family members risk factors. Visit an ophthalmologist if any of you are at risk or for routine exam at forty years of age.

Take your medicines as prescribed and don't stop medication without consulting your doctor.

Regular follow up visits as suggested by your doctor. The purpose of these visits is to make sure your glaucoma is well controlled and not getting worse. During these visits some test will be done to evaluate your glaucoma

So keep your appointments faithfully and help stop glaucoma from stealing your sight.

Remember a diagnosis of glaucoma does not necessarily mean blindness. Early and appropriate treatment can halt the progress of glaucoma.

What is the status of glaucoma currently?

There is now estimated 12 million people affected by glaucoma in India, the majority of whom are undiagnosed. By 2020, this is expected to be 16 million. There are 70 million people suffering from glaucoma in the world. It is estimated that by 2020-11 million people will be blind from glaucoma.