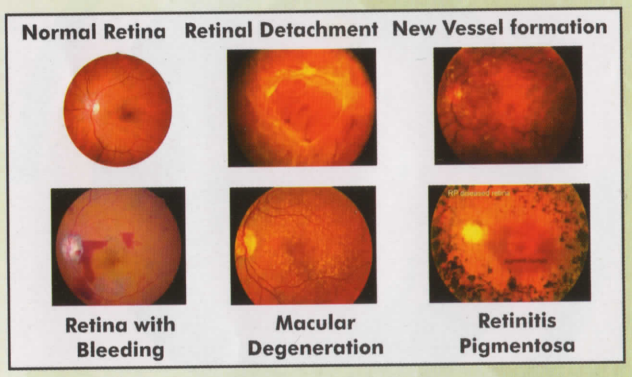
WHAT IS RETINA?

The Retina is like the film in a camera. It is the seeing tissue of the eye. When the focused light hits the retina, a picture is created and sent to the brain through the optic nerve (the nerve of the eye), thus giving us vision.

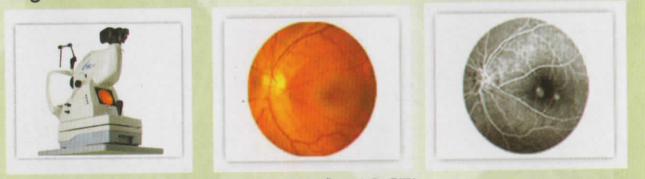
Retina has two parts: The Peripheral Retina and Central Macula. Macula being the central part, is capable of producing sharp and clear image. This clear image enable us to read, write and do all fine work. Conditions like Diabetes, Age related Macular degeneration and Macular holes can damage retina.



Nirmals Eye Hospital is equipped with the most advanced equipments to diagnose and treat retinal diseases.

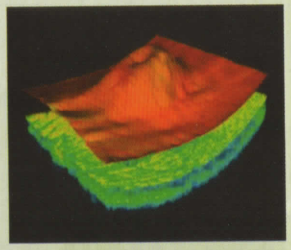
Digital Fundus Fluoroscien Angiography

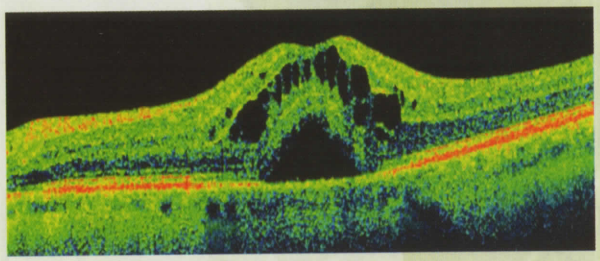
A test to detect various Retinal conditions like Diabetic Retinopathy, Diseases of the Retinal Blood Vessels, Age Related Macular Degeneration, etc. The digital imaging system gives us crystal clear images of the retina and aids in accurate diagnosis.



Optical Coherence Tomography (OCT)

OCT can measure retinal thickness precisely and repeatedly. It can measure minute changes, making it ideal for Hospital is equipped with most advanced Nidek Elite OCT system.





OCT – It is a 5 minute procedure. A laser beam is directed into the eye to scan the crucial areas of the eye. The test determines the thickness of the retina and helps in highlighting the problems in various layers of the retina. The test requires dilated pupil

Retinal lasers

Retinal laser is a short procedure done in OPD. Needs pupillary dilatation. Does not need any anesthesia. The defective areas on the retina are burnt with the laser. Mainly used to treat vascular retinopathies like diabetic Retinopathy

Laser for myopic retinopathies – A short procedure to delimit the retinal breaks to prevent serious complications like retinal detachment. Needs pupillary dilatation. Does not need any anesthesia.

- Yag lasers for after cataracts – A short procedure to clean the artificial lens implanted in th eye and the tissue surrounding the IOL during an earlier cataract surgery.

Green Laser for treatment of Diabetic Retinopathy

a) Diabetic retinopathy: diagnosis and management – Screening for diabetic retinopathy is important for individuals having diabetes of 3-5 years or more duration.

It can destroy the vision silently over a period of time.

Patients if diagnosed would need FFA and/or OCT to define the stage of the disease.

Advanced cases might need retinal laser treatment or vitrectomy surgery to restore the vision.

b) Hypertensive retinopathy : Hypertensive retinopathy can affect the eye quietly or can present as loss of vision with sudden onset.

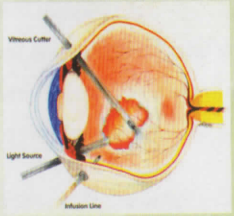
Patients with hypertension needs to be examined from time to time and if evidence of retinopathy is found, would need street control of HT.

c) Age related retinopathies: Crucial areas of the retina can get affected during the old age. Vision loss is generally slow and progressive. In few unfortunate patients there can be sudden acceleration of the disease process as well.

FFA and OCT are required to diagnose the extent of the disease.

Treatment options include medications, intravitreal injections, lasers, **telescopic IOL implantation** and vitrectomy depending on the extent of injury.

Retinal detachment management



Retinal detachment generally happens in people with minus power glasses. It can also happen secondary to trauma, complicated surgery, other vascular retinopathies, some genetic disorders, pediatric retinopathies etc.

This is a surgical problem requiring sclera buckling or vitrectomy with/without gas or silicon oil injection.

d) Cataract complications management: Vision threatening complications of the cataract surgery like dropped nucleus, dropped IOL or endophthalmitis require retinal surgery to restore the vision.

e) Ocular trauma: Injuries of the eye affecting the inside portion with affected vision or threatened affected vision requires surgical exploration and restoration of the normal anatomy.

f) ROP Screening : Premature child with low birth weight needs retinal evaluation early in the life to rule out ROP, a vision threatening condition.

Surgical Vitrectomy

20 Guage – conventional method (or) 23G sutureless method to perform a retinal surgery. Three holes are created in the eye to visualise and operate the retinal problem. The patient might be injected with gas or oil inside the eye. The oil needs to be removed later on.

Sutureless transconjunctival – 23 and 25 gauge retinal surgeries are the most modern sutureless methods to manage a retinal case. Post operative recovery is much faster than 20 gauge and patient is more comfortable as there are no sutures. The surgical time also reduces to a minimum of 20 minutes.

Scleral buckling

A classical method to treat retinal detachments where a band or buckle is implanted around the eye to support the slipping retina. Minimum duation of surgery is 40 minutes and is performed under local anesthesia.

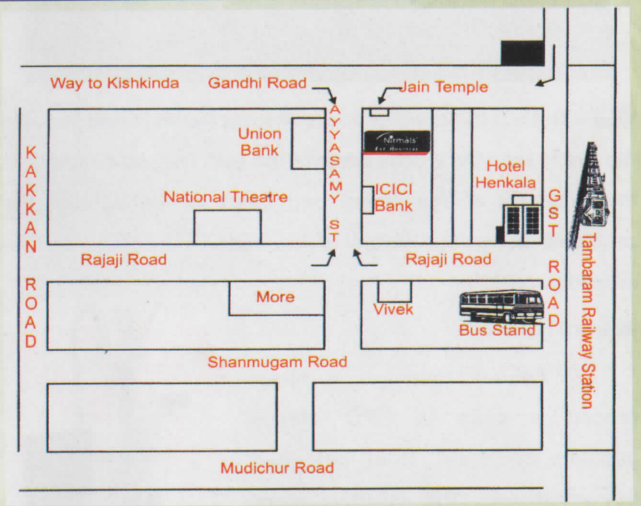
Cryotherapy for retinal lesions

a short procedure performed under local anaesthesia. Here the early lesions on the retina are freezed with a cryopexy probe to prevent retinal detachment.

Cyclodestructive procedure

Cryopexy probe is used to freeze the pressure maintaining tissue in the eye to control pressures in the eyes with uncontrolled glaucoma

- Traumatic globe repairs – Surgical procedure depends on the kind of presentation the patient has. The management can range from simple suturing to complicated combined procedures like combination of scleral buckling with vitrectomy.
- Tumor excision – This procedure is done for the patients with tumors threatening the vision or life. The procedure can be followed up with chemotherapy or radiotherapy.



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