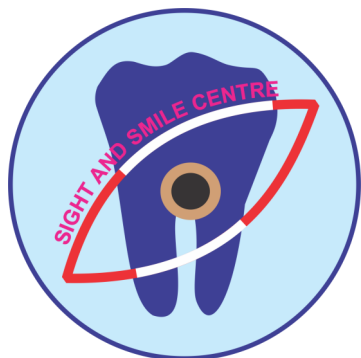


## About Sight and Smile Centre

Sight and Smile Centre is a state-of-the-art eye and dental care facility established in 2008 in the heart of the Indian capital, New Delhi with the aim of providing world-class healthcare services at affordable costs to all sections of society. Located in Central Delhi, 100 metres from the Patel Nagar Metro station (on the blue line of the Delhi Metro transit system), the facility is also easily approachable by road. Vehicle parking facility is available. Spread over an area of 7200 sq ft, the centre is fully air-conditioned and has an elevator facility for patient convenience. It complies with all fire safety regulations. The comforting ambience, the warm atmosphere and cleanliness make it stand apart. Medical records of patients are maintained for future reference. The facility prides itself in having a fully-equipped ultra-modern eye operation theatre, which is one of the largest in the city. The centre is registered with the Directorate of Health, Govt. of NCT of Delhi and functions from 9 am to 9 pm (Monday - Saturday). Emergency services can be availed round-the-clock. Dr. Pankaj Malik heads the eye department while Dr. Jyoti Malik heads the dental department. It is our constant endeavour to provide such preventive and restorative services to patients that they have the best of sight and smile.



Website: [www.sightandsmilecentre.com](http://www.sightandsmilecentre.com)

Address: 3/29, West Patel Nagar, New Delhi-110008  
Tel: 011-25882945

24 hours helpline: 0-85-0605-0705  
E-mail: [info@sightandsmilecentre.com](mailto:info@sightandsmilecentre.com)

## PATIENT EDUCATION

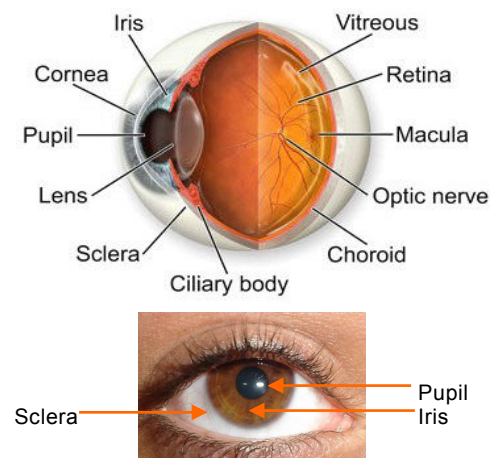
A Sight and Smile Centre Initiative



What you need to know  
about your eyes

Patient Information Brochure \*Not valid for legal purposes

## NORMAL STRUCTURE OF THE EYE



The human eye is a sense organ that reacts to light and allows vision including colour differentiation. It is protectively housed inside the eye socket (orbit). It is not shaped like a perfect sphere, rather it is a fused two-piece unit wherein the smaller front unit called cornea is linked to a larger unit, the sclera, by a ring called the limbus.

The eye is made up of three coats:

- ♦ **Sclera:** It is the dense, outermost protective coat ('white of the eye') with its front extension, the transparent cornea.
- ♦ **Uvea:** It is the middle coat consisting of iris, ciliary body and choroid. The uvea contains blood vessels that nourish the eye.
- ♦ **Retina:** It is the innermost coat consisting of delicate, light-sensitive nerve fibres which converge at the optic disc to form the optic nerve. The optic nerve carries visual impulses to the brain.

The lens is suspended by suspensory ligaments to the ciliary body. **In front of the lens lies the iris which has a small aperture in the centre, the pupil.** The iris provides the eye its colour - black, blue or brown. Aqueous humour is a clear fluid that is contained in the anterior (between the cornea and iris) and posterior (between the iris and lens) chambers and is produced by the ciliary body. Vitreous humour is a clear jelly-like substance that lies between the lens and retina.

## HOW THE EYE WORKS

The eye is like a camera. The transparent cornea and lens not only allow light rays to pass through but also focus those rays on the light-sensitive retina which acts like a film at the back of the camera. The iris with its central opening, the pupil, regulates the amount of light entering the eye and acts like a shutter or diaphragm aperture of the camera. In the retina, the light stimulus is converted into electrical impulses, which travel along the optic nerve to the visual centre in the occipital lobe of the brain. The visual centre analyses the electrical signals to complete the process of seeing.

## ROUTINE EYE TESTING

All newborns should undergo an eye examination immediately after birth to look for congenital eye deformities, congenital cataract etc. **Premature babies should be checked for retinopathy of prematurity (ROP).**

Routine comprehensive eye testing in 'seemingly normal' children and adults should be performed once a year. More frequent examinations may be needed depending upon the individual case.

Pointers for eye testing include:

- Delayed visual milestones.
- Deviation of eyes.
- Nystagmus (to and fro movement of the eyes).
- Watching television from close and keeping objects close to the eyes.
- Inability to see blackboard, especially from the back seat of the class.
- Poor performance in school.
- Headache.
- Sustained watering of eyes.
- Redness of eyes.
- Squeezing of the eyes.
- Tired eyes.
- Frequent rubbing of the eyes.
- Adoption of abnormal head posture.
- One or both parents wearing glasses.

## RED EYE

Red eye is a non-specific term used to describe an eye that appears red due to illness or injury. It may be caused by disorders of the eye or its adjacent structures. A few causes of red eye are:

- Infective conjunctivitis.
- Allergic conjunctivitis.
- Congenital nasolacrimal duct obstruction.
- Subconjunctival hemorrhage.
- Blepharitis.
- Keratitis.
- Corneal ulcer.
- Episcleritis.
- Scleritis.
- Uveitis.
- Acute glaucoma.
- Foreign body in the eye.
- Eye injury.
- Dry eye.
- Computer vision syndrome.

**Treatment of red eye depends on the cause. Patients with red eye, especially those in whom there is associated eye pain, light sensitivity, swelling or blurred vision, should seek urgent medical advice** so that the exact cause of red eye can be established and the correct treatment initiated.

## PREVENTION OF EYE INJURIES

Although the human eye is well protected inside its bony orbit from the sides and back and by the eyelids in front, eye injuries may be sustained and can be sight threatening. Eye injuries can be prevented by:

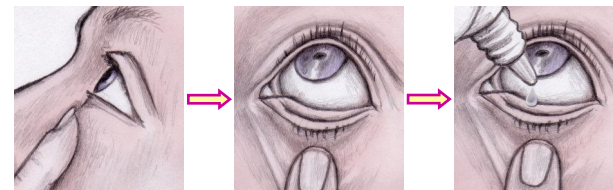
- reading instruction labels on cleaning fluids, detergents and chemicals carefully and washing hands thoroughly after use.
- making sure all spray nozzles are directed away from oneself while using them.
- supervising children when they are handling sharp instruments like scissors, knives, pencils etc and teaching them the correct way of handling.
- avoiding buying projectile toys like darts, pellet guns and bows and arrows.
- supervising children when they ignite fireworks.

Position the firework on a dry, level surface. Fireworks should always be ignited while standing at an arm's length away. Stand well back once the firework is lit. Never attempt to reignite a dud firework. Store the fireworks in a closed box safely away from the place of their igniting.

## HOW TO USE EYE DROPS

The following steps (in order) are to be followed when instilling eye drops in the eye:

- Wash hands thoroughly with soap and water. Mop them dry with a clean towel.
- Pick the correct eye drop bottle and check which eye the drops are to be instilled in.
- Shake the vial gently.
- Remove the cap of the vial and place it on a clean surface. Do not touch the dropper tip with hand or any other object.
- Stand in front of a mirror, sit on a chair or lie down, whichever is comfortable.
- With the head tilting backwards, the eyes looking at a point above on the ceiling, pull the lower lid down and squeeze a single drop from the vial into the eye taking care not to touch the eye with the tip of the vial.
- Close the eye for two minutes without squeezing it. Thereafter, wipe it gently to remove excess eye drop, if necessary.
- Put the cap of the vial firmly back in place.
- A second drop may be instilled after five minutes of the first.
- Wash hands again.



Method of instilling eye drops

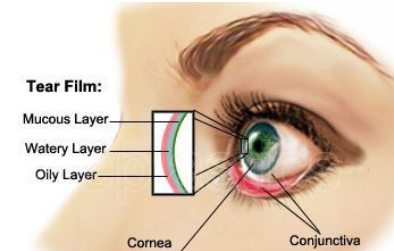
## Things to remember:

- Do not share the eye drops with anyone else.
- Use drops in the frequency and for the duration recommended.
- Keep drops away from sunlight. Some drops may need to be kept in a refrigerator.
- If eye drops and eye ointment both are prescribed together, instill eye drops first followed by ointment.
- Eye drops should not be instilled over contact lenses unless specifically instructed.
- Always check the expiry date of the eye drop vial and discard it if outdated.

## DRY EYE

### The precorneal tear film

The precorneal tear film is a complex fluid that covers the ocular surface. It forms and maintains a smooth refracting surface over the cornea, keeps the cornea and conjunctiva moist, lubricates the lids and protects the eye from noxious stimuli. It is made up of three layers: lipid (oily), aqueous (watery) and mucous.



The tear film

Abnormalities in any layer of the tear film, lid surface anomalies, ocular or systemic diseases and various drugs cause dry eye.

### What is dry eye?

**Dry eye is said to exist when the quantity or quality of the tear film is insufficient to ensure the well-being of the surface of the eye.** Although the typical patient of dry eye is elderly, the disorder is increasingly becoming common in the younger population because of extensive computer usage.

## Symptoms of dry eye

- Ocular fatigue.
- Foreign body sensation in the eye.
- Dry sensation.
- Burning sensation.
- Heavy sensation.
- Redness.
- Watering.
- Itching.
- Eye pain.
- Eye discharge.
- Blurred vision.
- Photophobia.

## Factors aggravating dry eye

- Air pollution.
- Smoking.
- Excessive wind.
- Decreased ambient humidity as seen in air conditioned environment.

## Treatment of dry eye

- ♦ **Tear supplementation:** Use of artificial tear substitutes in the form of eye drops, gels or ointments. This is the most commonly prescribed treatment.
- ♦ **Preservation of existing tears:** Use of punctual plugs, bandage contact lenses and lid taping procedures.
- ♦ **Surgery:** Tarsorrhaphy, fornix reconstruction etc.